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Javni prevoz - Vmesnik za informiranje v realnem času za potrebe delovanja javnega prevoza - 3. del: Funkcionalni vmesniki storitve

Public transport - Service interface for real-time information relating to public transport operations - Part 3: Functional service interfaces

Öffentlicher Verkehr - Serviceschnittstelle für Echtzeitinformationen, bezogen auf Operationen im öffentlichen Verkehr - Teil 3: Funktionelle Serviceschnittstelle

Transport public - Interface de service pour les informations en temps réel relatives aux opérations de transport public - Partie 3: Modules d'interface d'application individuels

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35.240.60	Uporabniške rešitve IT v transportu in trgovini	IT applications in transport and trade

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EUROPEAN STANDARD

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English Version

Public transport - Service interface for real-time information relating to public transport operations - Part 3: Functional service interfaces

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This European Standard was approved by CEN on 20 June 2015.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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European foreword

This document (EN 15531-3:2015) has been prepared by Technical Committee CEN/TC 278 “Intelligent transport systems”, the secretariat of which is held by NEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2016 and conflicting national standards shall be withdrawn at the latest by February 2016.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes CEN/TS 15531-3:2007.

This presents Part 3 of the European European Standard known as “SIRI”. SIRI provides a framework for specifying communications and data exchange protocols for organizations wishing to exchange Real-time Information (RTI) relating to public transport operations.

The SIRI European Standard is presented in three parts:

— Context and framework, including background, scope and role, normative references, terms and definitions, symbols and abbreviations, business context and use cases (Part 1).

— The mechanisms to be adopted for data exchange communications links (Part 2).

— Data structures for a series of individual application interface modules (Part 3).

— Two additional parts define additional functional services as CEN Technical Standards:

— Additional data structures for additional application interface module FM (Facility Monitoring: Part 4).

— Additional data structures for additional application interface module SX (Situation eXchange: Part 5).

The XML schema can be downloaded from http://www.siri.org.uk/, along with available guidance on its use, example XML files, and case studies of national and local deployments.

It is recognized that SIRI is not complete as it stands, and from time to time will need to continue to be enhanced to add additional capabilities. It is therefore intended that a SIRI Management Group should continue to exist, at European level, based on the composition of SG7.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

Public transport services rely increasingly on information systems to ensure reliable, efficient operation and widely accessible, accurate passenger information. These systems are used for a range of specific purposes: setting schedules and timetables; managing vehicle fleets; issuing tickets and receipts; providing real-time information on service running, and so on.

This European Standard specifies a Service Interface for Real-time Information (SIRI) about Public Transport. It is intended to be used to exchange information between servers containing real-time public transport vehicle or journey time data. These include the control centres of transport operators and information systems that utilise real-time vehicle information, for example, to deliver services such as travel information. SIRI 2 has also added, with SITI Lite, a possible exchange between server and end-user devices like smartphones or web browsers.

Well-defined, open interfaces have a crucial role in improving the economic and technical viability of Public Transport Information Systems of all kinds. Using standardized interfaces, systems can be implemented as discrete pluggable modules that can be chosen from a wide variety of suppliers in a competitive market, rather than as monolithic proprietary systems from a single supplier. Interfaces also allow the systematic automated testing of each functional module, vital for managing the complexity of increasing large and dynamic systems. Furthermore, individual functional modules can be replaced or evolved, without unexpected breakages of obscurely dependent function.

This European Standard will improve a number of features of public transport information and service management:

— Interoperability – the European Standard will facilitate interoperability between information processing systems of the transport operators by: (i) introducing common architectures for message exchange; (ii) introducing a modular set of compatible information services for real-time vehicle information; (iii) using common data models and schemas for the messages exchanged for each service; and (iv) introducing a consistent approach to data management.

— Improved operations management – the European Standard will assist in better vehicle management by (i) allowing the precise tracking of both local and roaming vehicles; (ii) providing data that can be used to improve performance, such as the measurement of schedule adherence; and (iii) allowing the distribution of schedule updates and other messages in real-time.

— Delivery of real-time information to end-users – the European Standard will assist the economic provision of improved data by; (i) enabling the gathering and exchange of real-time data between VAMS systems; (ii) providing standardized, well defined interfaces that can be used to deliver data to a wide variety of distribution channels.

Technical advantages include the following:

— Reusing a common communication layer for all the various technical services enables cost-effective implementations, and makes the European Standard readily extensible in future.

1 Scope

There are many potential ways for passenger transport operations centres to interact. The approach taken by SIRI is for an open-ended set of standard data structures, carried over a communications channel constructed using one of a small number of specific options.

Part 2 of this European Standard specifies the communications channel. Part 3 specifies a number of functional modules, based on the ‘use cases’ identified in Annex B to Part 1:

— Production Timetable (PT): this service enables the provision of information on the planned progress of vehicles operating a specific service, identified by the vehicle time of arrival and departure at specific stops on a planned route for a particular Operational Day.

— Estimated Timetable (ET): this service enables the provision of information on the actual progress of Vehicle Journeys operating specific service lines, detailing expected arrival and departure times at specific stops on a planned route. There will be recorded data for stops which have been passed, and predicted data for stops not yet passed. In addition the Estimated Timetable service allows Vehicle Journeys to be cancelled, added or changed.

— Stop Timetable (ST): this service provides a stop-centric view of timetabled vehicle arrivals and departures at a designated stop. It can be used to reduce the amount of information that needs to be transmitted in real-time to stops and displays, as reference data for a Stop Monitoring Service; and provides a data feed of the static timetables.

— Stop Monitoring (SM): this service provides a stop-centric view of vehicle arrivals and departures at a designated stop. It can be used by displays and other presentation services to provide departure board and other presentations of timetable and real-time journey information both at stops and at a distance.

— Vehicle Monitoring (VM): this service enables the provision of information on the current location and status of a set of vehicles. It provides all the current relevant information from one AVMS relating to all vehicles fulfilling a set of selection criteria.

— Connection Timetable (CT): this service may be used to provide information about the scheduled arrivals of a feeder vehicle to the operator of a connecting distributor service. The distributor operator can then plan how to guarantee the connection, either with the expected vehicle or a different vehicle.

— Connection Monitoring (CM): this service is used to provide information about the expected arrival of a feeder vehicle to the operator of a connecting distributor service. The distributor operator can then manage the service to guarantee the connection, based on actual vehicle running.

— General Message (GM): the SIRI "General Message” service is used to exchange informative messages between identified individuals in free or an arbitrary structured format. It enables messages to be sent and to be revoked. Messages are assigned validity periods in addition to the actual content.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 15531-1:2015, *Public transport - Service interface for real-time information relating to public transport operations - Part 1: Context and framework*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 15531-1:2015 apply.

4 Symbols and abbreviations

For the purposes of this document, the symbols and abbreviations given in EN 15531-1:2015 apply.

5 Production Timetable Service [PT]

5.1 Purpose

The SIRI Production Timetable Service transmits daily timetables that include any planned updates that are known about at the time of transmission. The service is used typically to communicate between Scheduling systems and AVMS systems, and also between AVMS systems and intelligent clients of the AVMS system. The timetables exchanged should cover all LINEs covered by the AVMS system.

The SIRI Production Timetable Service is also used to transmit the planned interchanges between journeys, including information about the linking of vehicle journey parts through the interchange, such as whether passengers are able to remain seated in the VEHICLE.

The provision of known updates gives a more accurate data set of journeys for the SIRI Estimated Timetable Service to reference, allowing a more efficient real-time exchange of content. However, the provision of a Production Timetable Service is not absolutely essential for the functioning of the Estimated Timetable service.

Because of the enhanced quality of data given by an increased integration with operational and back-office scheduling systems, SIRI implementations that are able to obtain production timetables should always provide and make use of a SIRI Production Timetable Service.

An AVMS system may be aware of additional operational journeys and CALLs such as dead runs, and layovers. As the schedule information system usually only knows about VEHICLE JOURNEYs that are relevant to the passenger, the AVMS should only transmit passenger carrying VEHICLE JOURNEYs to the schedule information system.

5.2 Capability and Permission Matrices

5.2.1 Capability Matrix

Table 1 shows the set of required and optional capabilities defined for the Production Timetable service.

If the service supports Capability Discovery the ***ProductionTimetableCapabilitiesRequest*** / ***Production-TimetableCapabilitiesResponse*** message pair can be used to determine the implementation's capabilities.

Table 1 — ProductionTimetableCapabilities Matrix

ProductionTimetableCapabilities			*+Structure*	Capabilities describing implementation of Production Timetable service
inherit	*:::*	**1:1**	*See xxx-Capability-Response*	See SIRI Part 2 for Common Capability attributes.
Topic	***TopicFiltering***	0:1	*+Structure*	Which optional filtering features are supported?
	FilterByValidityPeriod	**1:1**	*xsd:boolean*	Whether results can be filtered by Validity Period. Required Capability: Fixed is *true*.
	FilterByOperatorRef	**1:1**	*xsd:boolean*	Whether results can be filtered by OPERATOR. Default is *'true'*.
	FilterByLineRef	**1:1**	*xsd:boolean*	Whether results can be filtered by LINE. Default is *'true'*.

		FilterByVersionRef	**1:1**	*xsd:boolean*	Whether results can be filtered by TIMETABLE Version. Default is *'true'*.
Request Policy	***RequestPolicy***		0:1	*+Structure*	Which features of Request Policy are supported by the service?
		Language	**1:***	*xsd:language*	National languages used by service.
		Translations	0:1	*xsd:boolean*	Whether the producer supports translations. SIRI 2.0 Default is false.
				choice	Location reference system for coordinates.
	a	***GmlCoordinateFormat***	0:1	*SrsNameType*	Default coordinate format is given by a GML value.
	b	***WgsDecimalDegrees***		*EmptyType*	Default coordinate data system is WGS 84 latitude and longitude.
Sub-scription Policy	***SubscriptionPolicy***		0:1	*+Structure*	Which features of Subscription Policy are supported by the service?
		HasIncremental-Updates	0:1	*xsd:boolean*	Whether incremental updates can be specified for updates. Default is *'true'*.
Access Control	***AccessControl***		0:1	*+Structure*	Which optional Access Control features are supported by service?
		RequestChecking	1:1	*xsd:boolean*	Whether access control of requests is supported. Default is *'false'*.
		CheckOperatorRef	0:1	*xsd:boolean*	If access control is supported, whether access control by OPERATOR is supported. Default is *'true'*.
		CheckLineRef	0:1	*xsd:boolean*	If access control is supported, whether access control by LINE is supported. Default is *'true'*.
		CheckConnection-LinkRef	0:1	*xsd:boolean*	If access control is supported, whether access control by CONNECTION link is supported. Default is *'true'*.
any	***Extensions***		0:1	*xsd:any**	Placeholder for user extensions.

5.2.2 Permission Matrix

If the implementation supports both Capability Discovery and Access Controls, then the ***ProductionTimetableCapabilitiesResponse*** response can include the access permissions for the requestor participant to access data. Table 2 shows this.

Table 2 — Production Timetable Service — Permissions

ProductionTimetablePermission			*+Structure*	Permissions to use implementation of Production Timetable service.
In-herit	*:::*	**1:1**	*xxxService-Permissions*	See SIRI Part 2 for Common Permission elements.
Topic	***OperatorPermissions***	0:1	*+Structure*	OPERATOR permissions for participant. See Part 2.
	LinePermissions	0:1	*+Structure*	LINE permissions for participant. See Part 2.
	ConnectionLinkPermissions	0:1	*+Structure*	CONNECTION link permissions for participant. See Part 2.

5.3 ProductionTimetableRequest

5.3.1 ProductionTimetableRequest — Element

The ***ProductionTimetableRequest*** states which timetables should be returned – see Table 3 below.

Table 3 — ProductionTimetableRequest — Attributes

ProductionTimetableRequest			*+Structure*	Request for daily production timetables
Attributes	***version***	**1:1**	*VersionString*	Version identifier of *Production Timetable* Service, e.g. 1.0c
Endpoint Properties	***Request-Timestamp***	**1:1**	*xsd:dateTime*	See SIRI Part 2 for common properties of SIRI Functional Service Requests.
	Message-Identifier	0:1	*Message-Qualifier*	
Line Topic	***ValidityPeriod***	0:1	*ClosedTimestampRange-Structure*	Start and end of timetable validity (time window) of journeys for which schedules are to be returned. Refers to the departure time at the first stop of each VEHICLE JOURNEY. If blank the configured data horizon will be used.
	Start	**1:1**	*xsd:dateTime*	The (inclusive) start time.
	End	**1:1**	*xsd:dateTime*	The (inclusive) end time.
	Timetable-VersionRef	0:1	*xsd:string*	Communicate only differences to the timetable specified by this version of the timetable.
	OperatorRef	0:*	*→Operator-Code*	Filter the results to include only results for the specified operator or operators. Optional SIRI capability: *TopicFiltering / ByOperator.*
	Lines			
	LineDirection			
	LineRef	0:1	*→LineCode*	Filter the results to include only results for the given LINE or LINEs.
	DirectionRef	0:1	*→Direction-Code*	Filter the results to include only journeys for VEHICLEs running in a specific relative DIRECTION. Optional SIRI capability: *TopicFiltering* / *ByDirection*.
Policy	***Language***	0:1	*xml:lang*	Preferred language in which to return text values. Optional SIRI capability: *NationalLanguage.*
	Include-Translations	0:1	*xsd:boolean*	Whether the producer should include any available translations of NLString text elements into multiple languages. If false elements only one value per text element will be provided. +SIRI.2.0 Default is false.
	Incremental-Updates	0:1	*xsd:boolean*	Whether the producer should return the complete set of current data, or only provide updates to the last timetable returned, i.e. additions, modifications and deletions, as indicated by the ***TimetableVersionRef.*** If *false* each subscription response will contain the full information as specified in this request.
any	***Extensions***	0:1	*xsd:any**	Placeholder for user extensions.

The ***ProductionTimetableRequest*** can be used in both a direct request, and for a subscription. If used for a subscription, additional ***ProductionTimetableSubscriptionPolicy*** parameters can be specified.

The primary *Topic* term on the request is the time window for which timetables are to be returned. Additional topic filtering on LINE and timetable version is also allowed. If filtering is not specified, all LINEs known to the AVMS are transmitted.

If the timetable version is not available an error code is returned ***NoInfoForTopic***. In this situation a subscription is not set up.

5.3.2 ProductionTimetableRequest — Example

The following is an example of a ***ProductionTimetableRequest***.

```
<ServiceRequest>
    <RequestTimestamp>2004-12-17T09:30:47-05:00</RequestTimestamp>
    <RequestorRef>NADER</RequestorRef>
    <ProductionTimetableRequest version="1.0">
        <RequestTimestamp>2001-12-17T09:30:47-05:00</RequestTimestamp>
        <ValidityPeriod>
            <StartTime>14:20:00</StartTime>
            <EndTime>14:20:00</EndTime>
        </ValidityPeriod>
        <TimetableVersionRef>002</TimetableVersionRef>
        <OperatorRef>Smooth</OperatorRef>
<Lines>
<LineDirection>
        <LineRef>123</LineRef>  <DirectionRef>Outbound</DirectionRef>
<LineDirection>
<LineDirection>
    <LineRef>124</LineRef>
<LineDirection>
</Lines>
    </ProductionTimetableRequest>
</ServiceRequest>
```


5.4 ProductionTimetableSubscriptionRequest

5.4.1 ProductionTimetableSubscriptionRequest — Element

The ***ProductionTimetableSubscriptionRequest*** (Table 4) requests the asynchronous delivery of the information described by a ***ProductionTimetableRequest***. The ***ProductionTimetableSubscriptionRequest*** Policy parameters control the processing of the subscription.

Table 4 — ProductionTimetableSubscriptionRequest Parameters

ProductionTimetableSubscriptionRequest			*+Structure*	Request for a subscription to the SIRI Production Timetable Service.
Identity	***SubscriberRef***	0:1	*→ParticipantCode*	See SIRI Part 2 for common ***SubscriptionRequest*** parameters.
	SubscriptionIdentifier	**1:1**	*SubscriptionQualifier*	
Lease	***InitialTerminationTime***	**1:1**	*xsd:dateTime*	
Request	***ProductionTimetable-Request***	**1:1**	*+Structure*	See ***ProductionTimetableRequest***.
	Extensions	0:1	xsd:any*	Placeholder for user extensions.

5.4.2 ProductionTimetableSubscriptionRequest — Example

The following is an example of a ***ProductionTimetableSubscriptionRequest***.

```
    <SubscriptionRequest>
        <RequestTimestamp>2004-12-17T09:30:47-05:00</RequestTimestamp>
        <RequestorRef>NADER</RequestorRef>
        <ProductionTimetableSubscriptionRequest>
            <SubscriberRef>NADER</SubscriberRef>
            <SubscriptionIdentifier>0000456</SubscriptionIdentifier>
            <InitialTerminationTime>2001-12-17T09:30:47-05:00</InitialTerminationTime>
            <ProductionTimetableRequest version="1.0">
                <RequestTimestamp>2001-12-17T09:30:47-05:00</RequestTimestamp>
                <ValidityPeriod>
                    <StartTime>14:20:00</StartTime>
                    <EndTime>14:20:00</EndTime>
                </ValidityPeriod>
                <TimetableVersionRef>002</TimetableVersionRef>
                <OperatorRef>Smooth</OperatorRef>
<Lines>
<LineDirection>          <LineRef>123</LineRef>
                <DirectionRef>Outbound</DirectionRef>
<LineDirection>
<LineDirection>
    <LineRef>124</LineRef>
<LineDirection>
</Lines>          </ProductionTimetableRequest>
        </ProductionTimetableSubscriptionRequest>
    </SubscriptionRequest>
```

5.5 ProductionTimetableDelivery

5.5.1 Introduction

The ***ProductionTimetableDelivery*** returns the position of a VEHICLE or group of VEHICLEs.

5.5.2 ServiceDelivery with a ProductionTimetableDelivery

One or more ***ProductionTimetableDelivery*** elements may be returned as part of a SIRI Functional ServiceDelivery. Table 5 shows this element.

Table 5 — ServiceDelivery / ProductionTimetableDelivery — Attributes

ServiceDelivery			*+Structure*	See SIRI Part 2 ***ServiceDelivery***
HEADER	***:::***	**1:1**	See ServiceDelivery	
Payload	***ProductionTimetableDelivery***	0:*	*+Structure*	See ***ProductionTimetableDelivery*** element.

5.5.3 ProductionTimetableDelivery — Element

Each ***ProductionTimetableDelivery*** is made up of ***DatedTimetableVersionFrame*** elements. There will be status messages for any request that could not be returned. Table 6 shows this element.

Table 6 — ProductionTimetableDelivery — Attributes

ProductionTimetableDelivery			*+Structure*	Describes one or more Dated Timetables.
Attributes	***version***	**1:1**	*VersionString*	Version identifier of Production Timetable Service. Fixed, e.g. 1.0.
LEADER	***:::***	**1:1**	xxx***ServiceDelivery***	See SIRI Part 2.xxx***ServiceDelivery***.
Payload	***DatedTimetable VersionFrame***	0:*	*+Structure*	A version of the timetable to run on a specified date. See ***DatedTimetableVersionFrame*** element.
any	***Extensions***	0:1	xsd:any*	Placeholder for user extensions.

5.5.4 DatedTimetableVersionFrame — Element

5.5.4.1 Introduction

Each production timetable is returned as a ***DatedTimetableVersionFrame*** element. Each ***DatedTimetableVersionFrame*** contains a version of the timetable for a LINE and DIRECTION, and comprises one or more ***DatedVehicleJourney*** elements. Table 7 shows this element.

Table 7 — DatedTimetableVersionFrame — Attributes

DatedTimetableVersionFrame			*+Structure*	Provides a schedule of DATED VEHICLE JOURNEY for a LINE and DIRECTION.
Log	***RecordedAtTime***	**1:1**	*xsd:dateTime*	Time at which data was recorded.
Identity	***VersionRef***	0:1	*→VersionCode*	Reference to a TIMETABLE VERSION FRAME.
Line	***LineRef***	**1:1**	*→LineCode*	Identifier for the LINE.
	DirectionRef	**1:1**	*→DirectionCode*	Reference to the DIRECTION the VEHICLE is running along the LINE, for example, "in" or "out", “clockwise”. Distinct from a destination.
Journey Pattern Info	:::	0:1	*JourneyPattern-InfoGroup*	See SIRI Part 2 ***JourneyPatternInfo-Group***.
Service Info	:::	0:1	*ServiceInfoGroup*	See SIRI Part 2 ***ServiceInfoGroup***.
Notes	***OriginDisplay***	0:*	*NLString*	Name of ORIGIN of journey. One per language (+SIRI v2.0).
	DestinationDisplay	0:*	*NLString*	Name of DESTINATION of journey. One per language (Unbounded 0:* since +SIRI v2.0).
	LineNote	0:*	*NLString*	Text associated with LINE. One per language (Unbounded 0:* since +SIRI v2.0).
	FirstOrLastJourney	0:1	*unspecified*	Whether journey is first or last jouurney of day. +SIRI v2.0
Real time defaults	***HeadwayService***	0:1	*xsd:boolean*	Whether this is a Headway Service, that is one shown as operating at a prescribed interval rather than to a fixed timetable.
	Monitored	0:1	*xsd:boolean*	Whether there is real-time information available for journey, if not present, not known.
Journeys	***DatedVehicleJourney***	0:*	*+Structure*	Provides schedule information about the VEHICLE JOURNEY along which a VEHICLE is running.
Inter-changes	***ServiceJourney-Interchange***	0:*	*+Structure*	Provides schedule information about the planned SERVICE JOURNEY INTERCHANGEs that connect services.
any	***Extensions***	0:1	xsd:any*	Placeholder for user extensions.

5.5.4.2 DatedVehicleJourney — Element

Each ***DatedVehicleJourney*** contains an ordered list of ***DatedCall*** elements representing the sequence of stop CALLs, as well as other properties that apply to the VEHICLE JOURNEY as a whole. Table 8 shows this element.

Table 8 — DatedVehicleJourney — Attributes

DatedVehicleJourney				*+Structure*	Provides schedule information about the VEHICLE JOURNEY along which a VEHICLE is running.
Vehicle Journey Identity	***Choice***	**Framed-Vehicle-JourneyRef**	1:1	*+Structure*	Identifies the DATED VEHICLE JOURNEY. The preferred construction is using FramedVehicle-JourneyRef from SIRI 2.0. For backward compatibility it is still possible to use the deprecated DatedVehicle-JourneyCode
		Dated-Vehicle-Journey-Code	1:1	*VehicleJourney-Code*	
	VehicleJourneyRef		0:1	*→Vehicle-JourneyCode*	VEHICLE JOURNEY from which this journey is different.
	ExtraJourney		0:1	*xsd:boolean*	Whether this journey is an addition to the plan Can only be used when both participants recognise the same schedule version. If omitted, defaults to *false*: the journey is not an addition.
	Cancellation		0:1	*xsd:boolean*	Whether this journey is a Cancellation of a journey in the plan. Can only be used when both participants recognise the same schedule version. If omitted, defaults to *false*: Journey is not a Cancellation.
Journey Pattern Info	:::		0:1	*JourneyPattern-InfoGroup*	See SIRI Part 2 ***JourneyPatternInfoGroup.***
Service Info	:::		0:1	*ServiceInfo-Group*	See SIRI Part 2 ***ServiceInfoGroup.***
Journey-Info Group	:::		0:1	*JourneyInfo-Group* See above	See SIRI Part 2 ***JourneyInfoGroup.***
Notes	***OriginDisplay***		0:*	*NLString*	The appropriate text to be used as Origin for this VEHICLE JOURNEY. Can be overridden at individual calling points. (+SIRI v2.0). One per language
	DestinationDisplay		0:*	*NLString*	The appropriate text to be used as Destination for this VEHICLE JOURNEY. Can be overridden at individual calling points. One per language (Unbounded 0:* since +SIRI v2.0).
	LineNote		0:*	*NLString*	Additional text associated with LINE. Inherited property. One per language (Unbounded 0:* since +SIRI v2.0).
	FirstOrLastService		0:1	*xsd:boolean*	Whether journey is first or last jouurney of day. +SIRI v2.0
Timetable-info	***HeadwayService***		0:1	*xsd:boolean*	Whether this is a HEADWAY JOURNEY, that is one shown as operating at a prescribed interval rather than to a fixed timetable.
Real-time Info	***Monitored***		0:1	*xsd:boolean*	Whether there is real-time information available for journey, if not present, not known.
Operation-al Block	:::		0:1	*OperationalBlock Group*	See SIRI Part 2 ***OperationalBlockGroup.***
Children	***a***	***DatedCalls***	**1:1**	*+Structure*	Complete sequence of stops along the route path, in calling order. CALLs are in order within a JOURNEY PATTERN.
		DatedCall	**2:***	*+Structure*	Individual ***DatedCall.*** See below.
any	***Extensions***		0:1	*xsd:any**	Placeholder for user extensions.