



**PubTrans® 5**

## **SIRI-SM Producer 2.0 Interface Specification**

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# SIRI-SM Producer Interface Specification

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# 1 Introduction

## 1.1 Document Objectives

This document describes the SIRI-SM interface between PubTrans SIRI-SM producer and external consumers.

## 1.2 Change Notes

## 1.3 Terminology

Term	Definition
<b>SIRI</b>	Service Interface for Real Time Information
<b>GID</b>	Global Identifier. 16 digit number in central repository with specific format.
<b>CALL</b>	<p>A visit by a VEHICLE to a specific SCHEDULED STOP POINT as it follows the JOURNEY PATTERN of its VEHICLE JOURNEY to achieve a set of planned and estimated PASSING TIMES. A VEHICLE may make more than one CALL to the same stop in the course of a JOURNEY: different CALLs may typically be distinguished by a Visit Number count. The CALL may have real time data associated with it.</p> <p>Note: A SIRI CALL may be regarded as a useful optimisation of a more normalised set of structures that are articulated separately in Transmodel. CALL combines the Transmodel elements of POINT IN JOURNEY PATTERN in with ESTIMATED PASSING TIME, OBSERVED PASSING TIME, &amp; TARGET PASSING TIME, along with real time elements and other stop properties pertaining to the visit. Note that SIRI segregates all elements pertaining to arrival from those pertaining to departure, again facilitating the validation and implementation of actual systems.</p>
<b>DATED VEHICLE JOURNEY</b>	A particular journey of a vehicle on a particular OPERATING DAY, including all modifications decided by the control staff. (Transmodel)
<b>DIRECTION</b>	Classification for the general orientation of ROUTEs. (Transmodel)
<b>JOURNEY PATTERN</b>	<p>An ordered list of SCHEDULED STOP POINTs and TIMING POINTs on a single ROUTE, describing the pattern of working for public transport vehicles. A JOURNEY PATTERN may pass through the same POINT more than once. The first point of a JOURNEY PATTERN is the origin. The last point is the destination. Every VEHICLE JOURNEY has a JOURNEY PATTERN associated with it.</p> <p>In SIRI, JOURNEY PATTERNS are not explicitly exposed in the interface: the LINE and Route DIRECTION elements that appear on VEHICLE JOURNEYS are assumed to be derived from the associated journey pattern. (Transmodel)</p>

Term	Definition
<b>LINE</b>	A group of ROUTEs which is generally known to the public by a similar name or number. (Transmodel)
<b>OPERATING DAY</b>	A day of public transport operation in a specific calendar. An OPERATING DAY may last more than 24 h. (Transmodel)
<b>PARKING POINT</b>	A TIMING POINT where vehicles may stay unattended for a long time. A vehicle's return to park at a PARKING POINT marks the end of a BLOCK. (Transmodel)
<b>PASSING TIME</b>	Time data concerning public transport vehicles passing a particular POINT; e.g. arrival time, departure time or waiting time. (Transmodel)
<b>POINT</b>	A 0-dimensional node of the network used for the spatial description of the network. POINTs may be located by a LOCATION in a given LOCATING SYSTEM (Transmodel)
<b>ROUTE</b>	An ordered list of located POINTs defining one single path through the road (or rail) network. A ROUTE may pass through the same POINT more than once. Each JOURNEY PATTERN may be associated with a particular ROUTE. (Transmodel)
<b>SERVICE LINK</b>	An oriented spatial object of dimension 1 with view to the overall description of a network, describing a connection between two POINTs. (Transmodel)
<b>SCHEDULED STOP POINT</b>	A POINT where passengers can board or alight from vehicles. Note that in SIRI 1.0 was called STOP POINT. It has been renamed to SCHEDULED STOP POINT to distinguish it from STOP PLACE. (Transmodel)
<b>STOP AREA</b>	A group of STOP POINTs close to each other, often referred to by a common name. (Transmodel)
<b>TIMING POINT</b>	A POINT against which the timing information necessary to build schedules may be recorded. (Transmodel)  In SIRI, may be, but is not necessarily, a SCHEDULED STOP POINT. In many systems, Target Times for stops that are not timing points are interpolated simplistically from the timing points by either the scheduling system, or the AVMS system, and may represent a lower level of accuracy of prediction.
<b>VEHICLE</b>	A public transport vehicle used for carrying passengers.
<b>VIA</b>	A JOURNEY PATTERN POINT solely used to clarify that a specific path must be used when going from a STOP POINT to another. (Transmodel)

## 2 SIRI Stop Monitoring

### 2.1 Overview

Public transport services rely increasingly on information systems to ensure reliable, efficient operation and widely accessible, accurate passenger information.

Service Interface for Real-time Information (SIRI) is intended to be used to exchange information between servers containing real-time public transport vehicle or journey time data.

SIRI Stop Monitoring (SIRI-SM) is focused on providing real-time information on arrivals and departures at a designated stop.

This document describes how to interface the PubTrans SIRI-SM Provider Service using the SIRI Publish/Subscribe pattern of exchange with the Direct Delivery as delivery pattern.

The PubTrans SIRI-SM producer system will also support the SIRI Request/Reply pattern with direct delivery.

### 2.2 Process

The subscription is initiated when an external SIRI-SM consumer sends a Subscription Request to the subscription service of the PubTrans SIRI-SM producer system.

PubTrans SIRI-SM producer system will then respond with a Subscription Response verifying that the request was handled and thereafter start sending real-time information contained in service deliveries from its producer service.

Information regarding several stops may be sent in the same Service Delivery to avoid overloading the message exchange.

PubTrans SIRI-SM producer service will keep sending information until the subscription is terminated or the lease time (InitialTerminationTime) from the subscription request expires.

### 2.3 Content

SIRI has a comprehensive data model with many optional and alternative elements and attributes. It is possible to further extend the model by including custom XML in the Extension elements that are defined throughout the SIRI data model.

The SIRI specification recommends that the details about what messages, elements and content to actually exchange in a specific context should be specified in advance between the participants. This document specifies the PubTrans SIRI interface in detail with actual provided and expected content element by element. Message exchange sequences and content usage are described for some common scenarios.

Dynamic requests involving the Capability and Permission matrices and Detail-level filtering are not supported.

## 2.4 SIRI Version

The PubTrans SIRI-SM Producer service provides and expects information according to the coming SIRI 2.0 as submitted for voting to CEN from CEN TC278 WG3 SG7. See link to [XSD-Schema](#) for the coming EN V2.0 on the VDV website. The elements supported are stated in sections below.

## 2.5 Transport Protocol

PubTrans SIRI-SM producer service uses and expects SOAP compatible with *siri\_wsProducer-Document.wsdl* and *siri\_wsConsumer-Document.wsdl*.

## 2.6 Understanding Incremental Updates

To reduce the amount of data transferred from producer to consumer the SIRI concept of incremental updates has been applied with an optimised approach.

Using this mechanism the same information is not repeated over and over again, instead only updated attributes for a stop are transferred, and only updates for those stops that have any updates are transferred.

There are some exceptions to this reduction mechanism; the delivered updates must be valid according to the applicable SIRI XML Schema definitions. This means that mandatory elements will always be included when their parent element is included in the update, whether their content is changed or not.

Note that this reduction mechanism does not rule out that updates occasionally include previously transferred values for technical reasons or as a feature for consumers.

## 2.7 Date and Time Format

All timestamps are stated in UTC (Coordinated Universal Time). The use of UTC avoids problems with changeover between summer and winter time zones. Differences from the UTC time zone are coded in accordance with ISO 8601 (e.g.: 2000-04-07T18:39:00+01:00).

In accordance with ISO 8601, if no time difference is given, the time is in UTC; this may be further indicated by the presence of a Z suffix (2002-04-30T12:00:00 corresponds to 2002-04-30T12:00:00Z). In other words, the first 19 characters are obligatory and correspond to local time or UTC.

Time units less than one second are ignored.

## 3 Subscriptions

To start a subscription the external SIRI-SM consumer system should send a subscription request to the subscribe endpoint of the PubTrans SIRI-SM producer system.

If a subscription request is submitted with the same SubscriptionIdentifier as a subscription that already exists, the existing subscription will be deleted and a new subscription created in its place. Logically this is the same as sending a DeleteSubscription message, followed by a new Subscribe request message to create a new subscription.

### 3.1 Subscribe

These are the attribute we expect in the Subscribe Request (additional attributes will be ignored):

Attributes		Description
SubscriptionRequestInfo	1:1	
- RequestTimestamp	1:1	Timestamp of the request
- Address	0:1	URL of the consumer
- RequestorRef	1:1	Pre-determined Participant Reference of the consumer.
Request	1:1	
- StopMonitoringSubscriptionRequest	1:*	See separate section below
RequestExtension	1:1	Should be empty.

### 3.2 StopMonitoringSubscriptionRequest

Attributes		Description
SubscriptionIdentifier	1:1	Identifier for the subscription that is unique in scope of the subscriber, i.e. unique in scope of the consumers pre-determined Participant Reference (=RequestorRef).
InitialTerminationTime	1:1	End time for this subscription. After this time no more messages will be sent from the producer.
StopMonitoringRequest	1:1	See separate section below.
IncrementalUpdates	1:1	Must be set to <b>true</b> .

### 3.3 StopMonitoringRequest

Attributes		Description
RequestTimestamp	1:1	Timestamp of the request
MonitoringRef	1:1	The pre-arranged identifier about which data is requested. Reference to Stop Monitoring point(s) for which Stop Visits will be returned. Should be an identifier of a specific SCHEDULED STOP POINT or specified as "All" which means that the producer sends all data it can provide. Additional allowed groupings may be specified later.

### 3.4 Sample Subscribe

```
<wsdl:Subscribe xmlns:wsdl="http://wsdl.siri.org.uk"
xmlns:siri="http://www.siri.org.uk/siri" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="http://wsdl.siri.org.uk file:///C:/Siri/SiriXml-
v2.0h/xsd/wsdl_model/siri_wsProducer-Framework.xsd">
  <SubscriptionRequestInfo>
    <siri:RequestTimestamp>2012-09-05T15:45:47+02:00</siri:RequestTimestamp>
    <siri:Address>http://127.0.0.1:9003</siri:Address>
    <siri:RequestorRef>XYZ_CONSUMER</siri:RequestorRef>
  </SubscriptionRequestInfo>
  <Request>
    <siri:StopMonitoringSubscriptionRequest>
      <siri:SubscriptionIdentifier>S9025014004440001</siri:SubscriptionIdentifier>
      <siri:InitialTerminationTime>2012-09-
07T15:45:47+02:00</siri:InitialTerminationTime>
      <siri:StopMonitoringRequest version="2.0">
        <siri:RequestTimestamp>2012-09-05T15:45:47+02:00</siri:RequestTimestamp>
        <siri:MonitoringRef>9025014004440001</siri:MonitoringRef>
      </siri:StopMonitoringRequest>
      <siri:IncrementalUpdates>true</siri:IncrementalUpdates>
    </siri:StopMonitoringSubscriptionRequest>
  </Request>
</RequestExtension/>
</wsdl:Subscribe>
```

### 3.5 SubscribeResponse

When the subscription service of PubTrans SIRI SM producer system gets a Subscribe request it should answer with a SubscribeResponse verifying the request.

Attributes		Description
SubscriptionAnswerInfo	1:1	
- ResponseTimestamp	1:1	Time individual response element was created.
- ResponderRef	0:1	Pre-determined Participant reference of the producer. (=ProducerRef)

Answer	1:1	
- ResponseStatus	1:*	Status information about the request, or else error conditions.
- ServiceStartTime	0:1	Time the producer service started
AnswerExtension	1:1	Should be empty.

## 3.6 ResponseStatus

Attributes		Description
ResponseTimestamp	1:1	Time individual response element was created.
SubscriptionRef	1:1	This is a reference to the SubscriptionIdentifier of the corresponding StopMonitoringSubscriptionRequest.
Status	0:1	Whether the request could be processed successfully or not. Default is true.
ErrorCondition	0:1	Error conditions that apply to a service request.

If an error occurs then an ErrorCondition element will be included containing one of the 15 valid error elements according to the SIRI standard and also a Description if applicable.

## 3.7 Sample SubscriptionResponse

```
<wsdl:SubscribeResponse xmlns:wsdl="http://wsdl.siri.org.uk"
xmlns:siri="http://www.siri.org.uk/siri" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="http://wsdl.siri.org.uk file:///C:/Siri/SiriXml-
v2.0h/xsd/wsdl_model/siri_wsProducer-Framework.xsd">
  <SubscriptionAnswerInfo>
    <siri:ResponseTimestamp>2012-09-05T15:45:48.6027508+02:00</siri:ResponseTimestamp>
    <siri:ResponderRef>PubTransSMProducer</siri:ResponderRef>
  </SubscriptionAnswerInfo>
  <Answer>
    <siri:ResponseStatus>
      <siri:ResponseTimestamp>2012-09-05T15:45:48.6027508+02:00</siri:ResponseTimestamp>
      <siri:SubscriptionRef>S9025014004440001</siri:SubscriptionRef>
      <siri>Status>true</siri>Status>
    </siri:ResponseStatus>
    <siri:ResponseStatus>
      <siri:ResponseTimestamp>2012-09-05T15:45:48.6027508+02:00</siri:ResponseTimestamp>
      <siri:SubscriptionRef>S9025014004440002</siri:SubscriptionRef>
      <siri>Status>false</siri>Status>
      <siri>ErrorCondition>
        <siri:NoInfoForTopicError/>
      </siri>ErrorCondition>
    </siri:ResponseStatus>
  </Answer>
  <siri:ResponseStatus>
    <siri:ResponseTimestamp>2012-09-05T15:45:48.6027508+02:00</siri:ResponseTimestamp>
    <siri:SubscriptionRef>S9025014004440002</siri:SubscriptionRef>
    <siri>Status>false</siri>Status>
    <siri>ErrorCondition>
      <siri:NoInfoForTopicError/>
    </siri>ErrorCondition>
  </siri:ResponseStatus>
  <siri:ResponseStatus>
```

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```
<siri:ResponseTimestamp>2012-09-05T15:45:48.6027508+02:00</siri:ResponseTimestamp>
<siri:SubscriptionRef>S9025014004440003</siri:SubscriptionRef>
<siri:Status>false</siri:Status>
<siri:ErrorCondition>
  <siri:OtherError/>
  <siri:Description>No such stop: XYZ</siri:ErrorText>
</siri:ErrorCondition>
</siri:ResponseStatus>
<siri:ServiceStartedTime>2012-09-05T12:15:47.6027123+02:00</siri:ServiceStartedTime>
</Answer>
<AnswerExtension/>
</wsdl:SubscribeResponse>
```

## 4 Alive handling

### 4.1.1 Using Heartbeats

Heartbeats can be provided from the PubTrans SIRI-SM producer service.

If used, heartbeats will be sent with a pre-defined frequency. A single heartbeat message is sent for each subscriber channel.

If no heartbeats or other messages from the producer service have been received within a configured duration the consumer should try to re-subscribe to the service.

Also; if the ServiceStartTime of the heartbeat notification differs from what was last received, it is assumed that the producer has restarted, and the consumer should then re-subscribe.

### 4.1.2 Using CheckStatus Requests

As an alternative to using heartbeats, the consumer can instead check if the producer is alive by sending CheckStatus requests to the producer at pre-defined intervals. If the returned ServiceStartTime of the CheckStatusResponse differs from what was last received, it can be assumed that the producer has restarted, and the consumer should then re-subscribe.

## 4.2 Re-subscription

It is the responsibility of the consumer to assure that the subscriptions are alive and re-subscribe if needed.

If the consumer does not reuse the same SubscriptionIdentifier values for the same subscribed content when re-subscribing it should send a DeleteSubscriptionRequest before sending the Subscribe request to avoid the risk of duplicate subscriptions.

## 4.3 NotifyHeartbeat

Attributes		Description
HeartbeatNotify	1:1	
- RequestTimestamp	1:1	Time of Heartbeat Notification
- ProducerRef	0:1	Pre-determined participant reference of the producer.
Notification	1:1	
- Status	0:1	Whether the service is available. False if not available. Default is true.
- ErrorCondition	0:1	Error conditions that apply to the heartbeat notification.
- ServiceStartTime	0:1	Specifies the time of the start of the service.
SiriExtension	1:1	Should be empty

## 4.4 Sample NotifyHeartbeat

```
<wsdl:NotifyHeartbeat xmlns:wsdl="http://wsdl.siri.org.uk"
xmlns:siri="http://www.siri.org.uk/siri" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="http://wsdl.siri.org.uk file:///C:/Siri/SiriXml-
v2.0h/xsd/wsdl_model/siri_wsConsumer-Framework.xsd">
  <HeartbeatNotifyInfo>
    <siri:RequestTimestamp>2012-10-03T09:49:04.838471+02:00</siri:RequestTimestamp>
    <siri:ProducerRef>PubTransSMProducer</siri:ProducerRef>
  </HeartbeatNotifyInfo>
  <Notification>
    <siri:Status>true</siri:Status>
    <siri:ServiceStartTime>2012-10-03T05:49:04.838471+02:00</siri:ServiceStartTime>
  </Notification>
  <SiriExtension/>
</wsdl:NotifyHeartbeat>
```

## 4.5 CheckStatus

If the consumer wishes to determine whether the service is still “alive”, it sends a CheckStatus request to the producers CheckStatus endpoint and waits for the reply (CheckStatusResponse).

Attributes		Description
Request	1:1	
- RequestTimestamp	1:1	Time of the request
- RequestorRef	1:1	Pre-determined participant reference of the consumer.
RequestExtension	1:1	Should be empty.

## 4.6 Sample CheckStatus

```
<wsdl:CheckStatus xmlns:wsdl="http://wsdl.siri.org.uk"
xmlns:siri="http://www.siri.org.uk/siri" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="http://wsdl.siri.org.uk file:///C:/Siri/SiriXml-
v2.0h/xsd/wsdl_model/siri_wsProducer-Framework.xsd">
  <Request>
    <siri:RequestTimestamp>2012-10-03T09:49:04.838471+02:00</siri:RequestTimestamp>
    <siri:RequestorRef>XYZ_CONSUMER</siri:RequestorRef>
  </Request>
  <RequestExtension/>
</wsdl:CheckStatus>
```

## 4.7 CheckStatusResponse

The CheckStatusResponse indicates the availability of the producer. If the system is completely unavailable there will be no reply.

Attributes		Description
CheckStatusAnswerInfo	1:1	
- ResponseTimestamp	1:1	Time of the response.
- ProducerRef	1:1	Pre-determined participant reference of the producer.
Answer	1:1	
- Status	0:1	Whether the service is available. False if not available. Default is true.
- ErrorCondition	0:1	Error Condition that applies to a CheckStatusResponse.
- ServiceStartTime	0:1	Specifies the time of the start of the service. If the service is not available to deliver data, no value should be given here.
AnswerExtension	1:1	Should be empty.

If an error occurs then an ErrorCondition element will be included containing one of the two valid error elements according to the SIRI standard and also a Description if applicable.

## 4.8 Sample CheckStatusResponse

```
<wsdl:CheckStatusResponse xmlns:wsdl="http://wsdl.siri.org.uk"
xmlns:siri="http://www.siri.org.uk/siri" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="http://wsdl.siri.org.uk file:///C:/Siri/SiriXml-
v2.0h/xsd/wsdl_model/siri_wsProducer-Framework.xsd">
  <CheckStatusAnswerInfo>
    <siri:ResponseTimestamp>2012-10-03T09:49:04.838471+02:00</siri:ResponseTimestamp>
    <siri:ProducerRef>PubTransSMProducer</siri:ProducerRef>
  </CheckStatusAnswerInfo>
  <Answer>
    <siri:Status>true</siri:Status>
    <siri:ServiceStartTime>2012-10-03T05:49:04.838471+02:00</siri:ServiceStartTime>
  </Answer>
  <AnswerExtension/>
</wsdl:CheckStatusResponse>
```

## 5 Establishing current state at start of subscription

The producer will not send all current information about the stops when starting a subscription, instead updates will be sent as they occur. If the consumer wants all data to be sent out on subscription start, the consumer should send a DataSupply request to get that information.

### 5.1 DataSupply

To initiate the process the consumer sends a DataSupply request message to the GetData endpoint of the producer and waits for a reply (DataSupplyResponse).

Attributes		Description
DataSupplyRequestInfo	1:1	
- RequestTimestamp	1:1	Time individual data supply request was created.
- ConsumerRef	0:1	Pre-determined participant reference of the consumer.
Request	1:1	
- AllData	0:1	Always set to <b>true</b> to signify that all current information for all subscribed vehicles is to be returned.
RequestExtension	1:1	Should be empty.

### 5.2 Sample DataSupply

```
<wsdl:DataSupply xmlns:wsdl="http://wsdl.siri.org.uk"
xmlns:siri="http://www.siri.org.uk/siri" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="http://wsdl.siri.org.uk file:///C:/Siri/SiriXml-
v2.0h/xsd/wsdl_model/siri_wsProducer-Framework.xsd">
  <DataSupplyRequestInfo>
    <siri:RequestTimestamp>2012-10-03T09:49:04.838471+02:00</siri:RequestTimestamp>
    <siri:ConsumerRef>XYZ_CONSUMER</siri:ConsumerRef>
  </DataSupplyRequestInfo>
  <Request>
    <siri:AllData>true</siri:AllData>
  </Request>
  <RequestExtension/>
</wsdl:DataSupply>
```

## 5.3 DataSupplyResponse

In response to the DataSupply request the producer will supply all current data matching the subscriptions for that subscriber

Attributes		Description
DataSupplyAnswerInfo	1:1	
- ResponseTimestamp	1:1	Time of the response.
- ProducerRef	0:1	Pre-determined participant reference of the producer.
Answer	1:1	
- StopMonitoringDelivery	1:*	See "Stop Monitoring messages" chapter for details and examples of this.
AnswerExtension	1:1	Should be empty.

## 5.4 Sample DataSupplyResponse

```
<wsdl:DataSupplyResponse xmlns:wsdl="http://wsdl.siri.org.uk"
xmlns:siri="http://www.siri.org.uk/siri" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="http://wsdl.siri.org.uk file:///C:/Siri/SiriXml-
v2.0h/xsd/wsdl_model/siri_wsProducer-Framework.xsd">
  <DataSupplyAnswerInfo>
    <siri:ResponseTimestamp>2012-08-16T14:11:24.0346742+02:00</siri:ResponseTimestamp>
    <siri:ProducerRef>PubTransSMProducer</siri:ProducerRef>
  </DataSupplyAnswerInfo>
  <Answer>
    <siri:StopMonitoringDelivery version="2.0">
      <!--See "Stop Monitoring messages" chapter for sample contents of a StopMonitoring-
Delivery-->
    </siri:StopMonitoringDelivery>
  </Answer>
  <AnswerExtension/>
</wsdl:DataSupplyResponse>
```

## 6 Updating current state

When the subscription is established each relevant update of the subscribed stops is reported.

The information is wrapped within a `ServiceDelivery` which contains one or more `StopMonitoringDelivery` elements (one per subscription). Each `StopMonitoringDelivery` contains one or many of the following:

- One or several `MonitoredStopVisit` elements. Each `MonitoredStopVisit` represents the update of real time information for a stop visit covered by the subscription.
- One or several `MonitoredStopVisitCancellation` elements. Each `MonitoredStopVisitCancellation` represents the removal of a stop visit covered by the subscription.
- One or several `StopNotice` elements.
- One or several `StopNoticeCancellation` elements.

Information concerning a stop visit may be cached for a short time so that it can be sent together with updates of other stop visits and stop notices in the same `Service Delivery` to avoid overloading the message exchange. The maximum additional latency incurred by this mechanism is in the range of one second.

Note that `MonitoredStopVisit` elements will only be included in the `Service Delivery` for those stop visits that have updated information and that normally only updated sub-elements of the `MonitoredStopVisit` will be provided.

## 7 Terminate Subscriptions

### 7.1 DeleteSubscription

The consumer terminates its subscriptions to a service by sending a DeleteSubscription request to the ManageSubscriptions endpoint of the producer. A DeleteSubscription request may contain either one or more specific subscription identifiers, or a special value of **All**, indicating that all subscriptions for the subscriber should be terminated.

Attributes		Description
DeleteSubscriptionInfo	1:1	
- RequestTimestamp	1:1	Creation time of notice of change message.
- RequestorRef	1:1	Pre-determined Participant Reference of the consumer.
Request	1:1	
- All	0:1	Terminate all subscriptions for the Subscriber.
- SubscriptionRef	0:*	Identifies a specific subscription to be terminated.
RequestExtension	1:1	Should be empty.

Note that either **All** or one or more **SubscriptionRef** should be supplied.

### 7.2 Sample DeleteSubscription

Sample 1:

```
<wsdl:DeleteSubscription xmlns:wsdl="http://wsdl.siri.org.uk"
xmlns:siri="http://www.siri.org.uk/siri" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="http://wsdl.siri.org.uk file:///C:/Siri/SiriXml-
v2.0h/xsd/wsdl_model/siri_wsProducer-Framework.xsd">
  <DeleteSubscriptionInfo>
    <siri:RequestTimestamp>2012-10-03T09:49:04.838471+02:00</siri:RequestTimestamp>
    <siri:RequestorRef>XYZ_CONSUMER</siri:RequestorRef>
  </DeleteSubscriptionInfo>
  <Request>
    <siri:SubscriptionRef>S9025014004440001</siri:SubscriptionRef>
    <siri:SubscriptionRef>S9025014004440002</siri:SubscriptionRef>
  </Request>
  <RequestExtension/>
</wsdl:DeleteSubscription>
```

Sample 2:

```
<wsdl:DeleteSubscription xmlns:wsdl="http://wsdl.siri.org.uk"
xmlns:siri="http://www.siri.org.uk/siri" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
```

```
instance" xsi:schemaLocation="http://wsdl.siri.org.uk file:///C:/Siri/SiriXml-
v2.0h/xsd/wsdl_model/siri_wsProducer-Framework.xsd">
  <DeleteSubscriptionInfo>
    <siri:RequestTimestamp>2012-10-03T09:49:04.838471+02:00</siri:RequestTimestamp>
    <siri:RequestorRef>XYZ_CONSUMER</siri:RequestorRef>
  </DeleteSubscriptionInfo>
  <Request>
    <siri:All/>
  </Request>
  <RequestExtension/>
</wsdl:DeleteSubscription>
```

## 7.3 DeleteSubscriptionResponse

The producer will send a DeleteSubscriptionResponse with an acknowledgment or error code for each subscription that was to be terminated.

Attributes		Description
DeleteSubscriptionAnswerInfo	1:1	
- ResponseTimestamp	1:1	Creation time of response.
- ResponderRef	1:1	Identifies the Producer.
Answer	1:1	
- TerminationResponseStatus	1:*	Status of each response to each subscription termination. See below section.
AnswerExtension	1:1	Should be empty.

## 7.4 TerminateResponseStatus

Attributes		Description
ResponseTimestamp	0:1	Creation time of response status
SubscriberRef	0:1	Pre-determined Participant Reference of the subscribing consumer.
SubscriptionRef	1:1	This is a reference to the SubscriptionIdentifier of the subscription in question.
Status	0:1	Whether the subscription could be cancelled. Default is true.
ErrorCondition	0:1	Error Condition that applies to a TerminateSubscriptionResponse.

If an ErrorCondition occurs then an ErrorCondition element should be included containing one of the 4 valid error elements according to the SIRI standard and also a Description if applicable.

## 7.5 Sample DeleteSubscriptionResponse

```
<wsdl:DeleteSubscriptionResponse xmlns:wsdl="http://wsdl.siri.org.uk"
xmlns:siri="http://www.siri.org.uk/siri" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="http://wsdl.siri.org.uk file:///C:/Siri/SiriXml-
v2.0h/xsd/wsdl_model/siri_wsProducer-Framework.xsd">
  <DeleteSubscriptionAnswerInfo>
    <siri:ResponseTimestamp>2012-10-03T09:49:04.838471+02:00</siri:ResponseTimestamp>
    <siri:ResponderRef>PubTransSMProducer</siri:ResponderRef>
  </DeleteSubscriptionAnswerInfo>
  <Answer>
    <siri:ResponseTimestamp>2012-10-03T09:49:04.838471+02:00</siri:ResponseTimestamp>
    <siri:TerminationResponseStatus>
      <siri:SubscriberRef>XYZ_CONSUMER</siri:SubscriberRef>
      <siri:SubscriptionRef>S9025014004440001</siri:SubscriptionRef>
      <siri>Status>true</siri>Status>
    </siri:TerminationResponseStatus>
    <siri:TerminationResponseStatus>
      <siri:SubscriberRef>XYZ_CONSUMER</siri:SubscriberRef>
      <siri:SubscriptionRef>S9025014004440002</siri:SubscriptionRef>
      <siri>Status>>false</siri>Status>
      <siri>ErrorCondition>
        <siri:UnknownSubscriptionError/>
      </siri>ErrorCondition>
    </siri:TerminationResponseStatus>
  </Answer>
  <AnswerExtension/>
</wsdl:DeleteSubscriptionResponse>
```

## 8 Stop Monitoring messages

This section describes the content of the service deliveries sent from the producer to the consumer.

### 8.1 NotifyStopMonitoring

Attributes		Description
ServiceDeliveryInfo	1:1	
- ResponseTimestamp	1:1	Time individual response element was created.
- ProducerRef	0:1	Participant reference that identifies producer of data.
Notification	1:1	
- StopMonitoringDelivery	1:*	See separate section below
SiriExtensions	1:1	Should be empty.

## 8.2 StopMonitoringDelivery

A StopMonitoringDelivery is made up of MonitoredStopVisit instances, each representing a call at the stop by a VEHICLE, and/or MonitoredStopVisitCancellation instances to remove MonitoredStopVisit instances. There can also/instead be StopNotice and/or StopNoticeCancellation instances.

Attributes		Description
ResponseTimestamp	1:1	Time individual response element was created.
SubscriberRef	1:1	Required if Delivery is for a Subscription, Participant Reference of Subscriber.
SubscriptionRef	1:1	Identifier of Subscription issued by Requestor. Unique within Subscriber (i.e. within ParticipantRef of Subscriber), and SIRI Functional Service type.
MonitoredStopVisit	0:*	A visit to a SCHEDULED STOP POINT by a VEHICLE as an arrival and /or departure.
MonitoredStopVisitCancellation	0:*	Reference to a previously communicated MonitoredStopVisit which should now be removed from the arrival/departure board for the stop.
StopNotice	0:*	A reference to a SITUATION for a specific stop. Details about the situation are provided through SIRI-SX.
StopNoticeCancellation	0:*	Reference to a previously communicated StopNotice which should now be removed from the arrival/departure board for the stop.

## 8.3 MonitoredStopVisit

Attributes		Description
RecordedAtTime	1:1	Time at which VEHICLE data was recorded.
ItemIdentifier	1:1	Unique identifier of Item within data horizon of producer. Can be used for server side cleardown of previous Item instances.
MonitoringRef	1:1	Reference to pre-arranged identifier of related StopMonitoringRequest.
MonitoredVehicleJourney	1:1	Provides real-time information about the MONITORED VEHICLE JOURNEY which this VEHICLE is running. See separate section below.

## 8.4 MonitoredVehicleJourney

Each MonitoredStopVisit has a MonitoredVehicleJourney element, which associates the MonitoredStopVisit with the MonitoredVehicleJourney being made by the Vehicle arriving at the stop.

Attributes		Description
LineRef	0:1	Reference to a LINE.
DirectionRef	0:1	Reference to a DIRECTION the VEHICLE is running along the LINE.
FramedVehicleJourneyRef	1:1	Unique identifier of data frame within participant service. Used to ensure that the DatedVehicleJourneyRef is unique with the data horizon of the producer.
- DataFrameRef	1:1	Reference to a Data Frame, within which the given DATED VEHICLE reference is unique
DatedVehicleJourneyRef	1:1	A reference to the DATED VEHICLE JOURNEY that the VEHICLE is making.
<JourneyPatternInfo>	0:1	See separate section.
<VehicleJourneyInfo>	0:1	See separate section
<JourneyProgressInfo>	0:1	See separate section.
MonitoredCall	0:1	Information about a call at stop. See separate section.

## 8.5 JourneyPatternInfo

The JourneyPatternInfoGroup provides optional data about the ROUTE and LINE of a VEHICLE JOURNEY that originates with the JourneyPattern associated with the VehicleJourney.

Attributes		Description
VehicleMode	0:1	A method of transportation such as bus, metro etc.
PublishedLineName	0:*	Name or Number by which the LINE is known to the public. (One per language)

## 8.6 VehicleJourneyInfo

The VehicleJourneyInfoGroup provides optional data about a VEHICLE JOURNEY.

(Note that table below is split on two pages)

Attributes		Description
OperatorRef	0:1	OPERATOR.
ProductCategoryRef	0:1	PRODUCT CATEGORY of journey – classifies, for example; express, local.
ServiceFeaturesRef	0:*	Aimed feature of VEHICLE JOURNEY. E.g. 'lowFloor'.
VehicleFeaturesRef	0:*	Feature of monitored VEHICLE. E.g. 'lowFloor'.
OriginName	0:*	The name of the origin of the journey; used to help identify the VEHICLE to the public. (One per language)
OriginShortName	0:*	The short name of the origin of the journey; used to help identify the VEHICLE to the public. (One per language)
Via	0:*	Description of a VIA point on a journey.
- PlaceName	0:*	The name of a VIA point of the. (One per language)
- PlaceShortName	0:*	Short name of a VIA point of the journey. (One per language)
DestinationName	0:*	The name of the destination of the journey; used to help identify the VEHICLE to the public. (One per language)
DestinationShortName	0:*	The name of the destination of the journey; used to help identify the VEHICLE to the public. (One per language)
OriginAimedDepartureTime	0:1	Timetabled departure time of VEHICLE from Origin.
DestinationAimedArrivalTime	0:1	Timetabled arrival time of VEHICLE at Destination.

## 8.7 JourneyProgressInfo

The JourneyProgressGroup provides optional data about the real-time status of a vehicle journey of a MonitoredVehicleJourney.

Attributes		Description
Monitored	0:1	Whether there is real-time information available for journey, if not present, not known.
PredictionInaccurate	0:1	Whether the prediction should be judged as inaccurate.
VehicleStatus	0:1	A classification of the progress state of the VEHICLE JOURNEY.  expected   notExpected   cancelled   assigned   signedOn   atOrigin   inProgress   aborted   offRoute

## 8.8 MonitoredCall

The MonitoredCall element describes the CALL to be made at a SCHEDULED STOP POINT of the MonitoredVehicleJourney.

(Note that table below is split on two pages)

Attributes		Description
StopPointRef	1:1	Reference to the SCHEDULED STOP POINT.
VisitNumber	0:1	For JOURNEY PATTERNS that involve repeated visits by a VEHICLE to the same stop, the VisitNumber is used to distinguish each separate visit. Default is "1". Always provided if not "1".
Order	0:1	Overall Order within JOURNEY PATTERN.
StopPointName	0:*	Name of SCHEDULED STOP POINT. Usually inherited from the name of the STOP AREA.  One per language
VehicleAtStop	0:1	Whether VEHICLE was at stop at the time vehicle progress data was last recorded.
TimingPoint	0:1	Whether the stop is a TIMING POINT, i.e. times are measured at it.
RequestStop	0:1	Whether VEHICLE stops only if requested explicitly by passenger. Default is 'false'.

DestinationDisplay	0:*	The name of the destination of the journey; used to help identify the VEHICLE to the public. Since VEHICLES can change their destination during a journey, the destination included here should be what the VEHICLE will display when it reaches this stop.  One per language.
SituationRef	0:*	Reference to SITUATION describing the cause and effect of an incident or event associated with the MonitoredCall or VehicleJourney. Information describing the referred SITUATION must be subscribed from the PubTrans Situation Exchange producer service.
SituationSimpleRef	1:1	Reference to a SITUATION.
AimedArrivalTime	0:1	Planned arrival time of VEHICLE at stop according to original timetable.
ActualArrivalTime	0:1	Observed time of arrival of VEHICLE at stop.
ExpectedArrivalTime	0:1	Estimated time of arrival of VEHICLE at stop.
LatestExpectedArrivalTime	0:1	Latest expected time at which a VEHICLE is expected to arrive at stop.
<ArrivalStatus>	-	See section below
AimedDepartureTime	0:1	Planned departure time of VEHICLE from stop according to original timetable.
ActualDepartureTime	0:1	Observed time of departure of VEHICLE from stop.
ExpectedDepartureTime	0:1	Estimated time of departure of VEHICLE from stop.
EarliestExpected-DepartureTime	0:1	Earliest time at which VEHICLE may leave the stop. Used to secure connections. Passengers must be at boarding point by this time to be sure of catching VEHICLE.
<DepartureStatus>	-	See section below

## 8.9 ArrivalStatus

Attributes		Description
ArrivalStatus	0:1	Classification of the timeliness of the arrival part of the CALL according to a fixed list of values. This may reflect a presentation policy, for example calls less than one minute behind target time are still classified as on-time. Applications may use this to guide their own presentation of times. If not specified, same as DepartureStatus.  onTime   early   delayed   cancelled   arrived   departed   missed   noReport
ArrivalPlatformName	0:1	Textual description (such as "A" or "1") of platform/bay where passengers can alight. Reflects current information of expected QUAY. Only included if different from DeparturePlatformName.
ArrivalBoardingActivity	0:1	Type of alighting activity allowed at stop. alighting   noAlighting   passthru. Default is 'alighting'.

## 8.10 DepartureStatus

Attributes		Description
DepartureStatus	0:1	Classification of the timeliness of the departure part of the call, according to a fixed list of values. This may reflect a presentation policy, for example calls less than one minute behind target time are still classified as on-time. Applications may use this to guide their own presentation of times..  onTime   early   delayed   cancelled   arrived   departed   missed   noReport
DeparturePlatformName	0:1	Textual description (such as "A" or "1") of platform/bay where passengers can board. Reflects current information of expected QUAY.
DepartureBoardingActivity	0:1	Type of boarding activity allowed at stop. Default is 'boarding'.  boarding   noBoarding   passthru.

## 8.1.1 MonitoredStopVisitCancellation

The MonitoredStopVisitCancellation element is used to remove an earlier MonitoredStopVisit. Usually this message will come in the same StopMonitoringDelivery as the one where the MonitoredStopVisit is updated with the observed time of departure for the MonitoredCall.

Attributes		Description
RecordedAtTime	1:1	Time at which VEHICLE data was recorded.
ItemRef	1:1	Reference to ItemIdentifier of corresponding MonitoredStopVisit.
MonitoringRef	1:1	Reference to pre-arranged identifier of related StopMonitoringRequest.
VisitNumber	1:1	For JOURNEY PATTERNS that involve repeated visits by a VEHICLE to a stop, the VisitNumber is used to distinguish each separate visit.
LineRef	1:1	Reference to a LINE of journey that is being deleted.
DirectionRef	1:1	Reference to a DIRECTION of journey that is being deleted.

## 8.1.2 StopNotice

Information about SITUATIONS and cancellations will be distributed using SIRI-SX, but references to SITUATIONS for specific stops will be provided in SIRI-SM as StopNotice/StopNoticeCancellations.

Attributes		Description
RecordedAtTime	1:1	Timestamp of the SITUATION.
ItemIdentifier	1:1	Unique identifier of Item within data horizon of producer.
MonitoringRef	1:1	Reference to a Stop Monitoring point at which visits happen. May be a SCHEDULED STOP POINT.
StopPointRef	0:1	Reference to the SCHEDULED STOP POINT.
SituationRef	1:1	Reference to a SITUATION associated with the element.

## 8.13 StopNoticeCancellation

Attributes		Description
RecordedAtTime	1:1	Timestamp of the SITUATION.
ItemIdentifier	1:1	Unique identifier of Item within data horizon of producer.
MonitoringRef	1:1	Reference to a Stop Monitoring point at which visits happen. May be a SCHEDULED STOP POINT.
StopPointRef	0:1	Reference to the SCHEDULED STOP POINT.
AppliesFromTime	0:1	In case of a delayed cancellation this time tells when the cancellation applies.

## 8.14 Sample NotifyStopMonitoring

```
<wsdl:NotifyStopMonitoring xmlns:wsdl="http://wsdl.siri.org.uk"
xmlns:siri="http://www.siri.org.uk/siri" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="http://wsdl.siri.org.uk file:///C:/Siri/SiriXml-
v2.0h/xsd/wsdl_model/siri_wsConsumer-Services.xsd">
  <ServiceDeliveryInfo>
    <siri:ResponseTimestamp>2012-08-16T14:11:24+02:00</siri:ResponseTimestamp>
    <siri:ProducerRef>PubTransSMProducer</siri:ProducerRef>
  </ServiceDeliveryInfo>
  <Notification>
    <siri:StopMonitoringDelivery version="2.0">
      <siri:ResponseTimestamp>2012-08-16T14:11:24+02:00</siri:ResponseTimestamp>
      <siri:SubscriberRef>XYZ_CONSUMER</siri:SubscriberRef>
      <siri:SubscriptionRef>S9025014004440001</siri:SubscriptionRef>
      <siri:Status>true</siri:Status>
      <siri:ValidUntil>2012-08-16T14:16:24+02:00</siri:ValidUntil>
      <siri:MonitoredStopVisit>
        <siri:RecordedAtTime>2012-08-16T14:11:24+02:00</siri:RecordedAtTime>
        <siri:ItemIdentifier>20</siri:ItemIdentifier>
        <siri:ValidUntilTime>2012-08-16T14:16:24+02:00</siri:ValidUntilTime>
        <siri:MonitoringRef>9025014004440001</siri:MonitoringRef>
        <siri:MonitoredVehicleJourney>
          <siri:LineRef>9011015000100000</siri:LineRef>
          <siri:DirectionRef>9014002000120000</siri:DirectionRef>
          <siri:FramedVehicleJourneyRef>
            <siri:DataFrameRef>2012-08-16</siri:DataFrameRef>
            <siri:DatedVehicleJourneyRef>9015014509700631</siri:DatedVehicleJourneyRef>
          </siri:FramedVehicleJourneyRef>
          <siri:VehicleMode>rail</siri:VehicleMode>
          <siri:PublishedLineName>IC2</siri:PublishedLineName>
          <siri:OperatorRef>VR</siri:OperatorRef>
          <siri:ProductCategoryRef>NÄRTÅG</siri:ProductCategoryRef>
          <siri:ServiceFeatureRef>schoolBus</siri:ServiceFeatureRef>
          <siri:VehicleFeatureRef>lowFloor</siri:VehicleFeatureRef>
          <siri:OriginName xml:lang="sv">Åbo</siri:OriginName>
          <siri:OriginName xml:lang="fi">Turku</siri:OriginName>
          <siri:Via>
```

```
<siri:PlaceName xml:lang="sv">Esbo</siri:PlaceName>
<siri:PlaceName xml:lang="fi">Espoo</siri:PlaceName>
</siri:Via>
<siri:DestinationName xml:lang="sv">Helsingfors</siri:DestinationName>
<siri:DestinationName xml:lang="fi">Helsinki</siri:DestinationName>
<siri:DestinationShortName xml:lang="se">H-fors</siri:DestinationShortName>
<siri:OriginAimedDepartureTime>2012-08-
16T14:10:00+02:00</siri:OriginAimedDepartureTime>
<siri:DestinationAimedArrivalTime>2012-08-
16T14:12:00+02:00</siri:DestinationAimedArrivalTime>
<siri:Monitored>true</siri:Monitored>
<siri:PredictionInaccurate>>false</siri:PredictionInaccurate>
<siri:VehicleStatus>inProgress</siri:VehicleStatus>
<siri:MonitoredCall>
  <siri:StopPointRef>9025014004440001</siri:StopPointRef>
  <siri:VisitNumber>1</siri:VisitNumber>
  <siri:Order>5</siri:Order>
  <siri:StopPointName xml:lang="sv">Kyrkslätt</siri:StopPointName>
  <siri:StopPointName xml:lang="fi">Kirkkonummi</siri:StopPointName>
  <siri:VehicleAtStop>true</siri:VehicleAtStop>
  <siri:TimingPoint>false</siri:TimingPoint>
  <siri:RequestStop>false</siri:RequestStop>
  <siri:DestinationDisplay xml:lang="sv">Helsingfors</siri:DestinationDisplay>
  <siri:DestinationDisplay xml:lang="fi">Helsinki</siri:DestinationDisplay>
  <siri:SituationRef>
    <siri:SituationSimpleRef>1222121235</siri:SituationSimpleRef>
  </siri:SituationRef>
  <siri:ActualArrivalTime>2012-08-16T14:11:20+02:00</siri:ActualArrivalTime>
  <siri:ArrivalStatus>arrived</siri:ArrivalStatus>
  <siri:ArrivalBoardingActivity>alighting</siri:ArrivalBoardingActivity>
  <siri:AimedDepartureTime>2012-08-16T14:12:00+02:00</siri:AimedDepartureTime>
  <siri:DepartureStatus>arrived</siri:DepartureStatus>
  <siri:DeparturePlatformName>A12</siri:DeparturePlatformName>
  <siri:DepartureBoardingActivity>boarding</siri:DepartureBoardingActivity>
</siri:MonitoredCall>
</siri:MonitoredVehicleJourney>
</siri:MonitoredStopVisit>
<siri:MonitoredStopVisitCancellation>
  <siri:RecordedAtTime>2012-08-16T14:11:24+02:00</siri:RecordedAtTime>
  <siri:ItemRef>17</siri:ItemRef>
  <siri:MonitoringRef>9025014004440005</siri:MonitoringRef>
  <siri:VisitNumber>2</siri:VisitNumber>
  <siri:LineRef>9011015000100004</siri:LineRef>
  <siri:DirectionRef>9014002000120003</siri:DirectionRef>
</siri:MonitoredStopVisitCancellation>
<siri:StopNotice>
  <siri:RecordedAtTime>2012-08-16T14:11:24+02:00</siri:RecordedAtTime>
  <siri:ItemIdentifier>1222121232</siri:ItemIdentifier>
  <siri:MonitoringRef>9021076004522000</siri:MonitoringRef>
  <siri:StopPointRef>9025076000004523</siri:StopPointRef>
  <siri:SituationRef>
    <siri:SituationSimpleRef>1222121232</siri:SituationSimpleRef>
  </siri:SituationRef>
</siri:StopNotice>
<siri:StopNoticeCancellation>
  <siri:RecordedAtTime>2012-08-16T14:11:24+02:00</siri:RecordedAtTime>
  <siri:ItemIdentifier>1222121232</siri:ItemIdentifier>
  <siri:MonitoringRef>9021076004522000</siri:MonitoringRef>
  <siri:StopPointRef>9025076000004523</siri:StopPointRef>
</siri:StopNoticeCancellation>
</siri:StopMonitoringDelivery>
```

```
</Notification>
<SiriExtension/>
</wsdl:NotifyStopMonitoring>
```

## 8.15 GetStopMonitoring

GetStopMonitoring is a synchronous (request/reply) way of monitoring stop visits.

Attributes		Description
ServiceRequestInfo	1:1	
- RequestTimestamp	1:1	Timestamp of the request.
- RequestorRef	1:1	Pre-determined Participant Reference for the consumer.
Request	1:1	
- RequestTimestamp	1:1	Timestamp of the request.
- PreviewInterval	0:1	Forward duration for which Stop Visits should be included, that is, interval before predicted arrival at the stop for which to include visits: only journeys which will arrive or depart within this time span will be returned.
- MonitoringRef	0:1	Reference to a Stop Monitoring point for which Stop Visits will be returned. Should be an identifier of a SCHEDULED STOP POINT.
- MaximumStopVisits	0:1	The maximum number of arrival or departure visits to include in a given delivery. The first n Stop Visits within the look-ahead window are included. Only visits within the PreviewInterval are returned.
RequestExtension	1:1	Should be empty

## 8.16 Sample GetStopMonitoring

```
<wsdl:GetStopMonitoring xmlns:wsdl="http://wsdl.siri.org.uk"
xmlns:siri="http://www.siri.org.uk/siri" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="http://wsdl.siri.org.uk file:///C:/Siri/SiriXml-
v2.0h/xsd/wsdl_model/siri_wsProducer-Services.xsd">
  <ServiceRequestInfo xsi:type="siri:ServiceRequestStructure">
    <siri:RequestTimestamp>2012-08-16T14:11:24+02:00</siri:RequestTimestamp>
    <siri:RequestorRef>XYZ_CONSUMER</siri:RequestorRef>
  </ServiceRequestInfo>
  <Request version="2.0">
    <siri:RequestTimestamp>2012-08-16T14:11:24+02:00</siri:RequestTimestamp>
    <siri:PreviewInterval>PT30M</siri:PreviewInterval>
    <siri:MonitoringRef>9025014004440001</siri:MonitoringRef>
    <siri:MaximumStopVisits>5</siri:MaximumStopVisits>
  </Request>
  <RequestExtension/>
</wsdl:GetStopMonitoring>
```

## 8.17 GetStopMonitoringResponse

Attributes		Description
ServiceDeliveryInfo	1:1	
- ResponseTimestamp	1:1	Time individual response element was created.
- ProducerRef	0:1	Pre-determined participant reference of the producer.
Answer	1:1	
- StopMonitoringDelivery	1:*	See section above

## 8.18 Sample GetStopMonitoringResponse

```
<wsdl:GetStopMonitoringResponse xmlns:wsdl="http://wsdl.siri.org.uk"
xmlns:siri="http://www.siri.org.uk/siri" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xsi:schemaLocation="http://wsdl.siri.org.uk file:///C://Siri/SiriXml-
v2.0h/xsd/wsdl_model/siri_wsProducer-Services.xsd">
  <ServiceDeliveryInfo>
    <siri:ResponseTimestamp>2012-08-16T14:11:24+02:00</siri:ResponseTimestamp>
    <siri:ProducerRef>PubTransSMProducer</siri:ProducerRef>
  </ServiceDeliveryInfo>
  <Answer>
    <siri:StopMonitoringDelivery version="2.0">
      <!--For content sample, see example in the NotifyStopMonitoring-->
    </siri:StopMonitoringDelivery>
  </Answer>
  <AnswerExtension/>
</wsdl:GetStopMonitoringResponse>
```

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## 9 References

Document	Description
CEN EN 12896, Transmodel (version 5.1).	CEN EN 12896, Transmodel (version 5.1). The Reference Data Model for Public Transport.
CEN TS 15531 Service Interface for Real time Information (SIRI) (draft)	CEN TS 15531 Service Interface for Real time Information (SIRI) (2.0 final draft) <a href="http://www.vdv.de/siri.aspx">http://www.vdv.de/siri.aspx</a>