CTS SIRI-SX 2.0

Service Interface for Real Time Information Situation Exchange (SX)

CONSAT Telematics

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Terms, Acronyms and Abbreviations

Abbreviation	Description
SIRI	Service Interface for Real Time Information, CEN/TS 15531.
Transmodel	An abstract general purpose model for public transport information (CEN TC278, Reference Data Model For Public Transport, ENV12896 revised, June 2001).
HTTP	Hypertext Transfer Protocol.
Service	The program (process) that implements one or more of the SIRI functions.
Subscriber	A client that receives data from a Service using HTTP.
Client	A subscriber that receives data from a Service using HTTP.
Server	A computer that hosts one or more Services.
SX	Situation Exchange, a SIRI functional service interface.

1. Introduction

This document contains a description of the CTS SIRI Situation Exchange (SX) implementation. The SIRI/SX implementation is an open API that provides access to data from the CTS system.

The primary intended use of the CTS SIRI/SX implementation is for integration with external systems (machine-to-machine).

2. Scope and Purpose

SIRI as a standard has a large number of features and several optional capabilities. This document is intended to give developers the information needed to use the SIRI/SX functional service supplied with CTS. The capabilities and features of the CTS implementation are specified in detail.

3. SIRI/SX and the ITS4mobility System

The SIRI protocols deliver information from the CTS system in near real time. The CTS system is a low latency asynchronous message based system. This means that the time it takes for information generated within the system to pass all the way to a SIRI client is as small as possible. For example, when an operator enters a new information message, the message is published on all external interfaces including SIRI/SX within a second or so.

The SIRI/SX module is used to transfer traffic change and traffic information.

One or more Traffic Changes and/or one or more Traffic Informations can be bundled together into a single Traffic Task.

3.1 Traffic Change

A traffic change is when part or all of the planned traffic is cancelled. This is done by an operator using one of the user interfaces of the system. The operator can chose what to cancel in a number of ways, for example:

1. Selecting one or more blocks.
2. Selecting one or more journeys.
3. Selecting one or more lines.
4. Selecting one or more stop points.

As soon as the traffic change has been entered into the system, the information will be sent to SIRI/SX clients without delay. In SIRI/SX the Progress element decides whether the traffic change is added (open) or revoked (closed).

3.2 Traffic Information

Normally an operator will enter textual information aimed at commuters in connection with a traffic change. At other times an operator may wish to make other information available to passengers.

This information can be entered into the system using the CTS user interface. The operator can chose to attach the textual information to a number of elements of the planned traffic, for example:

1. Selecting one or more blocks.
2. Selecting one or more journeys.
3. Selecting one or more lines.
4. Selecting one or more stop points.

Depending on the URI parameters, these conditions might be translated into stop points. For example, attaching a text to a block would then mean that the text is attached to every stop point within that block.

As soon as the traffic information has been entered into the system it is published to all SIRI/SX clients without delay. The Progress element is set to “open”. If the information is revoked, the same SIRI/SX document will be sent again but with the Progress element set to “closed”.

3.2.1. CTS Information Channels

The traffic operator can decide that the textual information should be published to one or more Information Channels. The names and definition of the channels may vary depending on the system configuration. The following is an example list of possible channels:

Channel Name	Description
PublicWeb	A public web site for commuters.
PublicJourneyPlanner	A public journey planner.
PublicDisplays	All public information displays (at stop or web based).
BusDriver	Shown to the vehicle driver only.
BusPassengers	Shown to commuters on vehicles using internal displays.
BusExterior	Shown on exterior displays on the vehicles.
Email	A channel for email subscribers.

A SIRI/SX client can filter for a specific set of channels using URI query parameters as described in section 3.4.

3.3 Audio Information (Optional)

CTS can provide audio information using SIRI/SX. This is an extension to the SIRI protocol and has to be configured separately on the server. This option is disabled by default.

For more information on this option please contact Consat Telematics AB.

Channel Name	Description
PublicWeb	A public web site for commuters.
PublicJourneyPlanner	A public journey planner.
PublicDisplays	All public information displays (at stop or web based).
BusDriver	Shown to the vehicle driver only.
BusPassengers	Shown to commuters on vehicles using internal displays.
BusExterior	Shown on exterior displays on the vehicles.
Email	A channel for email subscribers.

3.4 Service URIs and Parameters

If no change is made during installation, SIRI/SX is available at the following URI:

http://<hostname>/siri/server/2.0/sx

The following query parameters are available and will affect the behavior of the server:

Parameter	Description
channels	A comma separated list of information channels. The client will only receive data that is published for the supplied channels.

For example, a client that filters for the journey planner channel and wants the new behavior with bundled situations would use the following URI:

http://<hostname>/siri/server/2.0/sx?channels=PublicJourneyPlanner

An example SX document can be found the appendix.

4. SIRI Situation Exchange (SX)

4.1 SituationExchangeSubscriptionRequest

These are the elements of the SituationExchangeSubscriptionRequest that are used in the CTS implementation. Please refer to the appendix for an example document.

Element	Description
SubscriberRef	A client reference, which can be any string. Will be returned in the SituationExchangeDelivery.
SubscriptionIdentifier	An identifier that will be returned as SubscriptionRef in the SituationExchangeDelivery.
InitialTerminationTime	How long this subscription will last before it is terminated by the server. For continuous operation this value should be far away.
SituationExchangeSubscriptionRequest	See below.

The SituationExchangeSubscriptionRequest element contains the following elements.

Element	Description
RequestTimestamp	The date and time that the client posted this request. The value is not used by the server.
PreviewInterval	How far ahead data will be delivered. The recommended setting is 1 year (P1Y) which in practice means to receive all data.

4.2 SituationExchangeDelivery

These are the elements of the SituationExchangeDelivery that are used in the CTS implementation. Please refer to the appendix for an example document.

Element	Description
ResponseTimestamp	The date and time that the server sent this document.
SubscriberRef	The subscriber (client) reference.
SubscriptionRef	The subscription reference which is the SubscriptionIdentifier that the client supplied in the SituationExchangeSubscriptionRequest.
Situations	A list of one or more PtSituationElement. See below.

The PtSituationElement element contains the following elements.

Element	Description
CreationTime	The date and time the situation was created.
ParticipantRef	The string ConsatTelematicsCTS. Will always be the same.
SituationNumber	A unique number identifying the situation.
References	See below.
Source	See below.
Progress	open or closed. When the progress is set to open, the situation is added. When the progress is set to closed, the situation is removed.
ValidityPeriod	The period that the situation is valid.
UndefinedReason	Not used. Only included because of schema constraints.
Severity	Set to slight, normal or severe which maps to “low”, “normal” and “high” in the CTS IMFace application.
Summary	Short text describing the situation. Usable as heading. Can be omitted.
Description	Text information describing the situation. Used to display information to passengers etc.
Affects	See below.
Consequences	A list of Consequence elements. See below.

The References element contains the following elements.

Element	Description
RelatedToRef	Reference to a Situation that is related to the same overall traffic situation.
RelatedToRef. CreationTime	Creation time of the related Situation.
RelatedToRef. SituationNumber	The SituationNumber of the related Situation.
RelatedToRef. RelatedAs	The type of relation. Always set to associated.

The Source element contains the following elements.

Element	Description
SourceType	Always directReport, only included due to schema constraints.
Other	The overall CTS incident identifier. Situations with the same identifier here belong together in the CTS system.
Name	Name or identifier of the person or automatic system that is the author of the situation.
ExternalCode	Identifier used for troubleshooting.

The Affects element contains the following elements.

Element	Description
StopPoints	A list of stop points that the situation is valid for.
VehicleJourneys	Contains a list of affected vehicle journeys.
Networks	Contains affected line(s).

The AffectedNetwork element contains the following elements.

Element	Description
AffectedLine	Line affected by this situation.

The AffectedLine element contains the following elements.

Element	Description
LineRef	Id of the line.
Route	This element is optional. If used it will specify which stop points along this line that are affected, unreferenced stop points are not affected.

The AffectedVehicleJourney element contains the following elements.

Element	Description
FramedVehicleJourney	The affected journey.

Route	This element is optional. If used it will specify which stop points along this journey that are affected, unreferenced stop points are not affected.
Calls	This element is optional. If used it will specify which calls along this journey that are affected, unreferenced calls are not affected.

The AffectedCall element contains the following elements.

Element	Description
StopPoint	The stop point of the call.
Order	The point the stop point sequence this call refers to. Can be missing, in which case the call element applies to all call instances for the specified stop point on this journey.
ArrivalBoardingActivity	If set, refers to the new alighting state for this call.
DepartureBoardingActivity	If set, refers to the new boarding state for this call.

The Consequence element contains the following elements.

Element	Description
Condition	Set to cancelled when traffic has been cancelled on the affected entities in the Affects element.
Severity	Set to slight, normal or severe which maps to “low”, “normal” and “high” in the CTS IMFace application.

4.2.1. SituationExchangeDelivery - Extensions

4.2.1.1. Audio Extension

If the SIRI/SX server is configured to allow audio messages, the PtSituationElement element uses the Extension element to deliver the necessary information. The SIRI/SX document does not contain the actual audio content. Instead an id (ResourceId) is delivered which can then be used to retrieve the actual audio message from the CTS system using HTTP.

An example of the audio extension element is shown below:

```
<AE:Extensions>
   <AF:CTS xmlns:AF="http://consat.se/cts/siri/SituationExtension">
      <AF:SituationExtension>
         <AF:Audio>
```

```
            <AF:AudioEntry>
               <AF:AudioRef>AW1002457</AF:AudioRef>
               <AF:AudioFormat>wave</AF:AudioFormat>
               <AF:NumberOfRepetitions>5</AF:NumberOfRepetitions>
               <AF:IntervalBetweenRepetitions>1800</AF:IntervalBetweenRepetitions>
            </AF:AudioEntry>
         </AF:Audio>
      </AF:SituationExtension>
   </AF:CTS>
</AE:Extensions>
```

The Extensions element may contain the following elements.

Element	Description
CTS	Container element for CTS specific data.
Audio	Container element for audio specific data.
Language	This element is optional.
The language used on the audio data.	*This element is optional.* The language used on the audio data.
AudioRef	The id of the audio resource. This id can be used to retrieve the audio file from the CTS system.
AudioUrl	Url to use to retrieve the audio data.
AudioBinary	Audio data.
AudioFormat	The format of the audio data.
NumberOfRepetitions	*This element is optional*. The number of times that the audio message should be announced. If the value is 0, the message should never be announced automatically. If NumberOfRepetitions is missing, the audio message should be repeated until the ValidityPeriod has been reached.
IntervalBetweenRepetitions	*This element is optional*. The time in seconds to wait between each audio announcement. Note that this is the time between the stop of an announcement until the beginning of the next.

Note that if the NumberOfRepetitions value is 0, the audio message should never be announced automatically. This means the message should only be announced on demand, for example when the user pushes a button at the stop.

The ValidityPeriod always has precedence. An audio message should never be announced outside of the ValidityPeriod boundaries.

4.2.1.2. Temporals Extension

If the SIRI/SX server is configured to use temporal scopes, the PtSituationElement element uses the Extension element to deliver the necessary information. This is enabled using the query parameter enableTemporalsExtension or if the server variable EnableTemporalsExtensionDefault is set to true in which case all clients will receive the temporal extension.

An example of the Temporals extension element is shown below:

```
<AE:Extensions>
   <AF:CTS xmlns:AF="http://consat.se/cts/siri/SituationExtension">
      <AF:SituationExtension>
        <AF:Temporals>
           <AF:Temporal>
              <AF:Days>
                 <AE:DayType>tuesday</AE:DayType>
              </AF:Days>
              <AF:Interval>
                 <AF:From>03:02:00</AF:From>
                 <AF:To>11:00:00</AF:To>
              </AF:Interval>
           </AF:Temporal>
           <AF:Temporal>
              <AF:Days>
                 <AE:DayType>friday</AE:DayType>
                 <AE:DayType>saturday</AE:DayType>
                 <AE:DayType>sunday</AE:DayType>
              </AF:Days>
              <AF:Interval>
                 <AF:From>13:02:00</AF:From>
                 <AF:To>13:36:00</AF:To>
              </AF:Interval>
           </AF:Temporal>
        </AF:Temporals>
      </AF:SituationExtension>
   </AF:CTS>
</AE:Extensions>
```

The Extensions element may contain the following elements.

Element	Description
CTS	Container element for CTS specific data.

Temporals	Container element for a list of temporal specific data.
Temporal	Container element for a single temporal scope.

The Temporal container element may contain the following elements.

Element	Description
Days	Container element for a list of Day elements, see below.
Interval	The time interval for this temporal temporal, see below.

The Days container element may contain the following element.

Element	Description
DayType	A DayTypeEnumeration, see the schema for definition.

The Interval element may contain the following.

Element	Description
From	Valid from time in a hh:mm format (xsd:time).
To	Valid to time in a hh:mm format (xsd:time).

5. Configuration

5.1 URL parameters

Some subscription settings can be set by the subscriber as URL parameters on the subscription URL. Lists are separated by comma (,).

Example: http://example.com/siri/server/2.0/sx/?operatorRefs=44,45

5.1.1. OperatorRefs

Limit the data to only contain data related to the listed operators.

Situations affecting geographical data, i.e. stop points, will relate to all opeators.

6. References

CEN/TS 15531-1:2007 Service interface for real-time information relating to public transport operations: Context and framework.

CEN/TS 15531-2:2007 Service interface for real-time information relating to public transport operations: Communications infrastructure.

CEN/TS 15531-3:2007 Service interface for real-time information relating to public transport operations: Functional service interfaces.

CEN/TS 15531-4:2011 Service interface for real-time information relating to public transport operations: Functional service interfaces - Facility Monitoring

CEN/TS 15531-5:2011 Service interface for real-time information relating to public transport operations: Functional service interfaces - Situation Exchange

7. Document history

Revision	Date
P1A	2020-02-14
2	Added URL parameters section

8. Appendix

8.1 Schema for extensions

```
<?xml version="1.0" encoding="utf-8" ?>
<xsd:schema xmlns="http://consat.se/cts/siri/SituationExtension"
            xmlns:siri="http://www.siri.org.uk/siri"
            attributeFormDefault="unqualified"
            elementFormDefault="qualified"
            id="SituationExtension"
            targetNamespace="http://consat.se/cts/siri/SituationExtension"
            version="1.0"
            xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <xsd:import schemaLocation="siri.xsd"
                namespace="http://www.siri.org.uk/siri" />
    <xsd:element name="CTS">
        <xsd:complexType>
            <xsd:sequence>
                <xsd:element name="SituationExtension">
                    <xsd:complexType>
                        <xsd:sequence>
                            <xsd:element name="Audio"
                                         minOccurs="0">
                                <xsd:complexType>
                                    <xsd:sequence>
                                        <xsd:element name="AudioEntry"
                                                     maxOccurs="unbounded">
                                            <xsd:complexType>
                                                <xsd:sequence>
                                                    <xsd:choice>
                                                        <xsd:element name="AudioRef"
                                                                     type="xsd:string" />
                                                        <xsd:element name="AudioUrl"
                                                                     type="xsd:anyURI" />
                                                        <xsd:element name="AudioBinary"
                                                                     type="xsd:base64Binary"
/>
                                                    </xsd:choice>
                                                    <xsd:element name="AudioFormat"

type="AudioFormatEnumeration"
                                                                 minOccurs="0"
                                                                 default="unknown" />
                                                    <xsd:element name="NumberOfRepetitions"
                                                                 type="xsd:unsignedInt"
                                                                 minOccurs="0">
                                                        <xsd:annotation>
                                                            <xsd:documentation>The number of
times that the audio message should be announced. If the value is 0, the message should never
be announced automatically.</xsd:documentation>
                                                        </xsd:annotation>
                                                    </xsd:element>
                                                    <xsd:element
name="IntervalBetweenRepetitions"
                                                                 type="xsd:unsignedInt"
                                                                 minOccurs="0">
```

```
                                                    <xsd:annotation>
                                                        <xsd:documentation>The time in
seconds to wait between each audio announcement. Note that this is the time between the stop
of an announcement until the beginning of the next.</xsd:documentation>
                                                    </xsd:annotation>
                                                </xsd:element>
                                            </xsd:sequence>
                                            <xsd:attribute name="Language"
                                                           type="xsd:string"
                                                           use="optional" />
                                        </xsd:complexType>
                                    </xsd:element>
                                </xsd:sequence>
                            </xsd:complexType>
                        </xsd:element>
                        <xsd:element name="Temporals"
                                     minOccurs="0">
                            <xsd:complexType>
                                <xsd:sequence>
                                    <xsd:element name="Temporal"
                                                 maxOccurs="unbounded">
                                        <xsd:complexType>
                                            <xsd:sequence>
                                                <xsd:element name="Days">
                                                    <xsd:complexType>
                                                        <xsd:sequence>
                                                            <xsd:element
ref="siri:DayType"

maxOccurs="unbounded" />
                                                        </xsd:sequence>
                                                    </xsd:complexType>
                                                </xsd:element>
                                                <xsd:element name="Interval">
                                                    <xsd:complexType>
                                                        <xsd:sequence>
                                                            <xsd:element name="From"
                                                                         type="xsd:time"
/>
                                                            <xsd:element name="To"
                                                                         type="xsd:time"
/>
                                                        </xsd:sequence>
                                                    </xsd:complexType>
                                                </xsd:element>
                                            </xsd:sequence>
                                        </xsd:complexType>
                                    </xsd:element>
                                </xsd:sequence>
                            </xsd:complexType>
                        </xsd:element>
                    </xsd:sequence>
                </xsd:complexType>
            </xsd:element>
            <xsd:simpleType name="AudioFormatEnumeration">
```

```
        <xsd:restriction base="xsd:NMTOKEN">
            <xsd:enumeration value="unknown" />
            <xsd:enumeration value="pcm" />
            <xsd:enumeration value="wave" />
            <xsd:enumeration value="mp3" />
            <xsd:enumeration value="opus" />
            <xsd:enumeration value="vorbis" />
            <xsd:enumeration value="speex" />
            <xsd:enumeration value="flac" />
        </xsd:restriction>
    </xsd:simpleType>
</xsd:schema>
```

8.2 Example SituationExchangeSubscriptionRequest

```
<?xml version="1.0"?>
<AE:Siri version="2.0" xmlns:xs="http://www.w3.org/2001/XMLSchema-instance"
xmlns:AD="http://www.ifopt.org.uk/acsb" xmlns:AB="http://www.ifopt.org.uk/ifopt"
xmlns:AC="http://datex2.eu/schema/1_0/1_0" xmlns:AE="http://www.siri.org.uk/siri">
    <AE:SubscriptionRequest>
        <AE:RequestTimestamp>2012-10-02T17:50:22.8845029+02:00</AE:RequestTimestamp>
        <AE:RequestorRef>VT_PublicMap</AE:RequestorRef>
        <AE:MessageIdentifier xs:type="AE:MessageQualifierStructure">1</AE:MessageIdentifier>

<AE:ConsumerAddress>http://10.42.18.244:21081/CustomerServices/IMFace/IMFace.aspx</AE:Consume
rAddress>
        <AE:SubscriptionContext>
            <AE:HeartbeatInterval>PT1M</AE:HeartbeatInterval>
        </AE:SubscriptionContext>
        <AE:SituationExchangeSubscriptionRequest
xs:type="AE:SituationExchangeSubscriptionStructure">
            <AE:SubscriberRef>VT_PublicMap</AE:SubscriberRef>
            <AE:SubscriptionIdentifier>VT_PublicMap</AE:SubscriptionIdentifier>
            <AE:InitialTerminationTime>9999-12-31T23:59:59.999</AE:InitialTerminationTime>
            <AE:SituationExchangeRequest version="2.0"
xs:type="AE:SituationExchangeRequestStructure">
                <AE:RequestTimestamp>2012-10-02T17:50:22.8845029+02:00</AE:RequestTimestamp>
                <AE:PreviewInterval>P1Y</AE:PreviewInterval>
            </AE:SituationExchangeRequest>
        </AE:SituationExchangeSubscriptionRequest>
    </AE:SubscriptionRequest>
</AE:Siri>
```

8.3 Example SituationExchangeDelivery

```
<?xml version="1.0"?>
<AA:Siri xmlns:AA="http://www.siri.org.uk/siri" xmlns:AC="http://datex2.eu/schema/1_0/1_0"
xmlns:AB="http://www.ifopt.org.uk/ifopt" xmlns:AD="http://www.ifopt.org.uk/acsb"
xmlns:xs="http://www.w3.org/2001/XMLSchema-instance" version="1.3">
    <AA:ServiceDelivery>
        <AA:ResponseTimestamp>2012-10-04T08:43:39.949</AA:ResponseTimestamp>
        <AA:ProducerRef>ITS4mobility-SX</AA:ProducerRef>
        <AA:Status>true</AA:Status>
```

```
        <AA:SituationExchangeDelivery xs:type="AA:SituationExchangeDeliveryStructure"
version="1.3">
            <AA:ResponseTimestamp>2012-10-04T08:43:39.949</AA:ResponseTimestamp>
            <AA:SubscriberRef>vasttrafik</AA:SubscriberRef>
            <AA:SubscriptionRef>SX/</AA:SubscriptionRef>
            <AA:Situations>
                <AA:PtSituationElement xs:type="AA:PtSituationElementStructure">
                    <AA:CreationTime>2012-10-04T08:43:39.949</AA:CreationTime>
                    <AA:CountryRef>se</AA:CountryRef>
                    <AA:ParticipantRef>ITS4mobility</AA:ParticipantRef>
                    <AA:SituationNumber>1362552</AA:SituationNumber>
                    <AA:Source>
                        <AA:SourceType>directReport</AA:SourceType>
                        <AA:Name
xs:type="AA:NaturalLanguageStringStructure">wiktorsson.jill</AA:Name>
                    </AA:Source>
                    <AA:Progress>open</AA:Progress>
                    <AA:ValidityPeriod>
                        <AA:StartTime>2012-10-04T08:41:00</AA:StartTime>
                        <AA:EndTime>2012-10-04T09:50:00</AA:EndTime>
                    </AA:ValidityPeriod>
                    <AA:UndefinedReason></AA:UndefinedReason>
                    <AA:Severity>normal</AA:Severity>
                    <AA:Audience>public</AA:Audience>
                    <AA:ReportType>unknown</AA:ReportType>
                    <AA:Description xs:type="AA:DefaultedTextStructure" xml:lang="SV"
overridden="true">Linje 600 med avgångstid klockan 08.13 från Trollhättan Resecentrum är för
närvarande cirka 10 minuter försenad. För exakt avgångstid se
realtidsskylten.</AA:Description>
                    <AA:Affects>
                        <AA:StopPoints>
                            <AA:AffectedStopPoint xs:type="AA:AffectedStopPointStructure">
                                <AA:StopPointRef>9022014062716002</AA:StopPointRef>
                            </AA:AffectedStopPoint>
                            <AA:AffectedStopPoint xs:type="AA:AffectedStopPointStructure">
                                <AA:StopPointRef>9022014062715002</AA:StopPointRef>
                            </AA:AffectedStopPoint>
                        </AA:StopPoints>
                    </AA:Affects>
                    <AA:Consequences>
                        <AA:Consequence>
                            <AA:Condition>unknown</AA:Condition>
                            <AA:Severity>normal</AA:Severity>
                        </AA:Consequence>
                    </AA:Consequences>
                </AA:PtSituationElement>
            </AA:Situations>
        </AA:SituationExchangeDelivery>
    </AA:ServiceDelivery>
</AA:Siri>
```

8.4 Example SituationExchangeDelivery with an Audio Extension

```
<?xml version="1.0"?>
<AA:Siri xmlns:AA="http://www.siri.org.uk/siri" xmlns:xs="http://www.w3.org/2001/XMLSchema-instance">
  <AA:ServiceDelivery>
    <AA:ResponseTimestamp>2020-04-27T12:25:28.756</AA:ResponseTimestamp>
```

```
    <AA:ProducerRef>CSELR-SIRI</AA:ProducerRef>
    <AA:RequestMessageRef>135b97e4-8aae-45c1-b387-021dc01fc549</AA:RequestMessageRef>
    <AA:SituationExchangeDelivery>
      <AA:ResponseTimestamp>2020-04-27T12:25:28.755</AA:ResponseTimestamp>
      <AA:SubscriptionRef>TfNSW-SIRI-MB-SI</AA:SubscriptionRef>
      <AA:Situations>
        <AA:PtSituationElement>
          <AA:CreationTime>2020-04-27T10:25:28.723</AA:CreationTime>
          <AA:ParticipantRef>SMNW</AA:ParticipantRef>
          <AA:SituationNumber>ExampleWithExtension-1</AA:SituationNumber>
          <AA:References>
            <AA:RelatedToRef>
              <AA:CreationTime>2020-04-27T08:25:28.725</AA:CreationTime>
              <AA:SituationNumber>TX403</AA:SituationNumber>
              <AA:RelatedAs>associated</AA:RelatedAs>
            </AA:RelatedToRef>
          </AA:References>
          <AA:Source>
            <AA:SourceType>directReport</AA:SourceType>
            <AA:Other>RT42404</AA:Other>
            <AA:Name>example.user</AA:Name>
            <AA:ExternalCode>RT42404-AW404</AA:ExternalCode>
          </AA:Source>
          <AA:Progress>open</AA:Progress>
          <AA:ValidityPeriod>
            <AA:StartTime>2020-04-27T10:25:28.725</AA:StartTime>
            <AA:EndTimeStatus>undefined</AA:EndTimeStatus>
          </AA:ValidityPeriod>
          <AA:UndefinedReason/>
          <AA:Severity>normal</AA:Severity>
          <AA:Audience>public</AA:Audience>
          <AA:ReportType>unknown</AA:ReportType>
          <AA:Planned>false</AA:Planned>
          <AA:Language>en</AA:Language>
          <AA:Summary>Incident at Central Station</AA:Summary>
          <AA:Description>Due to an incident at Central Station there will be delays in the
traffic.</AA:Description>
          <AA:Affects>
            <AA:Networks>
              <AA:AffectedNetwork>
                <AA:VehicleMode>unknown</AA:VehicleMode>
                <AA:AffectedLine>
                  <AA:LineRef>100</AA:LineRef>
                </AA:AffectedLine>
              </AA:AffectedNetwork>
            </AA:Networks>
            <AA:StopPoints>
              <AA:AffectedStopPoint>
                <AA:StopPointRef>100100</AA:StopPointRef>
              </AA:AffectedStopPoint>
            </AA:StopPoints>
            <AA:VehicleJourneys>
              <AA:AffectedVehicleJourney>
                <AA:VehicleJourneyRef>313</AA:VehicleJourneyRef>
                <AA:Route/>
```

```
            </AA:AffectedVehicleJourney>
          </AA:VehicleJourneys>
        </AA:Affects>
        <AA:Consequences>
          <AA:Consequence>
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            <AA:Severity>normal</AA:Severity>
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    </AA:Situations>
  </AA:SituationExchangeDelivery>
</AA:ServiceDelivery>
</AA:Siri>
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