



Digitraffic web services

Version 1.03
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1 Version history

0.1	21.2.2008	Janne Mattila	First version
0.2	24.6.2008	Janne Mattila	Updates based on discussions with Destia
1.0	20.10.2008	Janne Mattila	Added nobs and laststaticdataupdate
1.01	25.9.2009	Janne Mattila	Updated fluency class naming
1.02	21.10.2009	Janne Mattila	Fixed a typo in chapter 7.1, talked about link static data, should be LAM static data
1.03	8.2.2010	Janne Mattila	Added description of "one client per one user account" –principle to Introduction-chapter

2 Introduction

Digitraffic offers six different web services for data retrieval. The following chapters describe each web service in detail.

Web services have been implemented using document / literal style. They conform to WS-I Basic Profile 1.0 and use the "wrapped" naming convention.

A user account in Digitraffic is a prerequisite for using the web services. Web service interfaces are protected with http basic authentication.

The web service interfaces are intended to be used for system to system integration. One user account is meant to be used for the needs of one system. If the user organization needs the data in multiple systems, it needs to request the data only once, and then distribute it to all recipient systems internally.

All interfaces return a standard reply, and clients can use same standard request messages to call the services each time. There is no need (or option) to send parameters in the requests.

Some parts of the example messages in this document are not representative of the data the real messages contain. For example, travel times are unnaturally long in some messages.

3 Current journey times

WSDL: <http://stp.gofore.com/sujuvuus/ws/journeyTime?wsdl>

The message contains a median travel time (seconds) calculated from a 5 minute period. For each link there is a median number, and a timestamp of the latest update of the median.

The message is updated each time we receive new median data from MTP. Normally this is once per minute. If MTP does not send us new data, the message is not updated.

Table 1 WSDL defining the web service (soap:address has a temporary value)

```
<wsdl:definitions targetNamespace="http://www.gofore.com/sujuvuus/schemas"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" xmlns:schema="http://www.gofore.com/sujuvuus/schemas"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/">
  <wsdl:types>
    <xsd:schema elementFormDefault="qualified"
targetNamespace="http://www.gofore.com/sujuvuus/schemas"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:suj="http://www.gofore.com/sujuvuus/schemas">
      <xsd:element name="JourneyTime">
        <xsd:complexType/>
      </xsd:element>
      <xsd:element name="JourneyTimeResponse">
        <xsd:complexType>
          <xsd:sequence>
            <xsd:element name="timestamp" type="suj:ObstimeType"/>
            <xsd:element name="laststaticdataupdate" type="xsd:dateTime" />
            <xsd:element name="linkdynamicdata">
              <xsd:complexType>
                <xsd:sequence>
                  <xsd:element maxOccurs="unbounded" name="linkstat"
type="suj:LinkStatType"/>
                </xsd:sequence>
              </xsd:complexType>
            </xsd:element>
          </xsd:sequence>
        </xsd:complexType>
      </xsd:element>
      <xsd:complexType name="LinkStatType">
        <xsd:sequence>
          <xsd:element name="linkno" type="suj:LinkNumberType"/>
          <xsd:element name="measurementtime" type="suj:ObstimeType"/>
          <xsd:element name="medianjourneytime" type="xsd:nonNegativeInteger"/>
          <xsd:element name="nobs" type="xsd:integer"/>
        </xsd:sequence>
      </xsd:complexType>
      <xsd:complexType name="ObstimeType">
        <xsd:sequence minOccurs="0">
          <xsd:element minOccurs="0" name="utc" type="xsd:dateTime"/>
          <xsd:element minOccurs="0" name="localtime" type="xsd:dateTime"/>
        </xsd:sequence>
      </xsd:complexType>
      <xsd:simpleType name="LinkNumberType">
        <xsd:restriction base="xsd:nonNegativeInteger"/>
      </xsd:simpleType>
    </xsd:schema>
  </wsdl:types>
  <wsdl:message name="JourneyTimeResponse">
    <wsdl:part element="schema:JourneyTimeResponse" name="JourneyTimeResponse"/>
  </wsdl:message>
  <wsdl:message name="JourneyTime">
    <wsdl:part element="schema:JourneyTime" name="JourneyTime"/>
  </wsdl:message>
```

```

<wsdl:portType name="JourneyTimePort">
  <wsdl:operation name="JourneyTime">
    <wsdl:input message="schema:JourneyTime" name="JourneyTime"/>
    <wsdl:output message="schema:JourneyTimeResponse" name="JourneyTimeResponse"/>
  </wsdl:operation>
</wsdl:portType>
<wsdl:binding name="JourneyTimeBinding" type="schema:JourneyTimePort">
  <soap:binding style="document" transport="http://schemas.xmlsoap.org/soap/http"/>
  <wsdl:operation name="JourneyTime">
    <soap:operation soapAction=""/>
    <wsdl:input name="JourneyTime">
      <soap:body use="literal"/>
    </wsdl:input>
    <wsdl:output name="JourneyTimeResponse">
      <soap:body use="literal"/>
    </wsdl:output>
  </wsdl:operation>
</wsdl:binding>
<wsdl:service name="JourneyTimeService">
  <wsdl:port binding="schema:JourneyTimeBinding" name="JourneyTimePort">
    <soap:address location="http://localhost:8180/sujuvuus-webapp-1.0-SNAPSHOT/ws"/>
  </wsdl:port>
</wsdl:service>
</wsdl:definitions>

```

Table 2 Example request

```

<soapenv:Envelope
  xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:sch="http://www.gofore.com/sujuvuus/schemas">
  <soapenv:Header />
  <soapenv:Body>
    <sch:JourneyTime />
  </soapenv:Body>
</soapenv:Envelope>

```

Table 3 Example response

```

<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <soapenv:Body>
    <ns1:JourneyTimeResponse xmlns="http://www.gofore.com/sujuvuus/schemas"
      xmlns:ns1="http://www.gofore.com/sujuvuus/schemas">
      <ns1:timestamp>
        <ns1:utc>2008-10-09T10:14:49Z</ns1:utc>
        <ns1:localtime>2008-10-09T13:14:49+03:00</ns1:localtime>
      </ns1:timestamp>
      <ns1:laststaticdataupdate>2008-09-30T21:00:00Z</ns1:laststaticdataupdate>
      <ns1:linkdynamicdata>
        <ns1:linkstat>
          <ns1:linkno>0</ns1:linkno>
          <ns1:measurementtime>
            <ns1:utc>2008-10-09T10:14:00Z</ns1:utc>
            <ns1:localtime>2008-10-09T13:14:00+03:00</ns1:localtime>
          </ns1:measurementtime>
          <ns1:medianjourneytime>417</ns1:medianjourneytime>
          <ns1:nobs>-1</ns1:nobs>
        </ns1:linkstat>
        <ns1:linkstat>
          <ns1:linkno>1</ns1:linkno>
          <ns1:measurementtime>
            <ns1:utc>2008-10-09T10:14:00Z</ns1:utc>
            <ns1:localtime>2008-10-09T13:14:00+03:00</ns1:localtime>
          </ns1:measurementtime>
          <ns1:medianjourneytime>412</ns1:medianjourneytime>
          <ns1:nobs>-1</ns1:nobs>
        </ns1:linkstat>
      </ns1:linkdynamicdata>
    </ns1:JourneyTimeResponse>
  </soapenv:Body>

```

```
</soapenv:Envelope>
```

3.1 Elements

- **timestamp** timestamp of the latest update of the message, both in UTC time zone and local (Finnish) time zone
- **laststaticdataupdate** timestamp of the latest update of the link static data in UTC time zone
- **linkstat** data for a single link
- **linkno** link identifier
- **measurementtime** timestamp of median calculation for this link, in UTC and Finnish time zones
- **medianjourneytime** median of travel times for this link, based on 5 minutes, in seconds
- **nobs** number of observations that were used to calculate the median journey time. -1 unknown.

4 Current fluency data

WSDL: <http://stp.gofore.com/sujuvuus/ws/trafficFluency?wsdl>

The message contains for each link the latest 5 minute median, corresponding average speed, fluency class, and timestamp of the latest update.

The message is updates each time we receive new median data from MTP. Normally this is once per minute. If MTP does not send us new data, the message is not updated.

Table 4 WSDL defining the web service

```
<wsdl:definitions targetNamespace="http://www.gofore.com/sujuvuus/schemas"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" xmlns:schema="http://www.gofore.com/sujuvuus/schemas"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
  <wsdl:types>
    <xsd:schema elementFormDefault="qualified"
targetNamespace="http://www.gofore.com/sujuvuus/schemas"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:suj="http://www.gofore.com/sujuvuus/schemas">
      <xsd:element name="TrafficFluency">
        <xsd:complexType/>
      </xsd:element>
      <xsd:element name="TrafficFluencyResponse">
        <xsd:complexType>
          <xsd:sequence>
            <xsd:element name="timestamp" type="suj:ObstimeType"/>
            <xsd:element name="laststaticdataupdate" type="xsd:dateTime" />
            <xsd:element name="linkdynamicdata">
              <xsd:complexType>
                <xsd:sequence>
                  <xsd:element maxOccurs="unbounded" name="linkstat"
type="suj:LinkStatType"/>
                </xsd:sequence>
              </xsd:complexType>
            </xsd:element>
          </xsd:sequence>
        </xsd:complexType>
      </xsd:element>
      <xsd:complexType name="LinkStatType">
        <xsd:sequence>
          <xsd:element name="linkno" type="suj:LinkNumberType"/>
          <xsd:element name="measurementtime" type="suj:ObstimeType"/>
          <!--this be a string for now-->
          <xsd:element name="journeytimenow" type="xsd:string"/>
          <xsd:element name="midspeednow">
            <xsd:simpleType>
              <xsd:restriction base="xsd:float">
                <xsd:minInclusive value="0.0"/>
              </xsd:restriction>
            </xsd:simpleType>
          </xsd:element>
          <xsd:element name="fluencyclassnow" type="xsd:nonNegativeInteger"/>
          <xsd:element name="nobs" type="xsd:integer"/>
        </xsd:sequence>
      </xsd:complexType>
      <xsd:simpleType name="LinkNumberType">
        <xsd:restriction base="xsd:nonNegativeInteger"/>
      </xsd:simpleType>
      <xsd:complexType name="ObstimeType">
        <xsd:sequence>
          <xsd:element name="utc" type="xsd:dateTime"/>
          <xsd:element name="localtime" type="xsd:dateTime"/>
        </xsd:sequence>
      </xsd:complexType>
    </xsd:schema>
  </wsdl:types>
```

```

    </xsd:complexType>
  </xsd:schema>
</wsdl:types>
<wsdl:message name="TrafficFluencyResponse">
  <wsdl:part element="schema:TrafficFluencyResponse" name="TrafficFluencyResponse"/>
</wsdl:message>
<wsdl:message name="TrafficFluency">
  <wsdl:part element="schema:TrafficFluency" name="TrafficFluency"/>
</wsdl:message>
<wsdl:portType name="TrafficFluencyPort">
  <wsdl:operation name="TrafficFluency">
    <wsdl:input message="schema:TrafficFluency" name="TrafficFluency"/>
    <wsdl:output message="schema:TrafficFluencyResponse" name="TrafficFluencyResponse"/>
  </wsdl:operation>
</wsdl:portType>
<wsdl:binding name="TrafficFluencyBinding" type="schema:TrafficFluencyPort">
  <soap:binding style="document" transport="http://schemas.xmlsoap.org/soap/http"/>
  <wsdl:operation name="TrafficFluency">
    <soap:operation soapAction=""/>
    <wsdl:input name="TrafficFluency">
      <soap:body use="literal"/>
    </wsdl:input>
    <wsdl:output name="TrafficFluencyResponse">
      <soap:body use="literal"/>
    </wsdl:output>
  </wsdl:operation>
</wsdl:binding>
<wsdl:service name="TrafficFluencyService">
  <wsdl:port binding="schema:TrafficFluencyBinding" name="TrafficFluencyPort">
    <soap:address location="http://localhost:8180/sujuvuus-webapp-1.0-SNAPSHOT/ws"/>
  </wsdl:port>
</wsdl:service>
</wsdl:definitions>

```

Table 5 Example request

```

<soapenv:Envelope
  xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:sch="http://www.gofore.com/sujuvuus/schemas">
  <soapenv:Header />
  <soapenv:Body>
    <sch:TrafficFluency />
  </soapenv:Body>
</soapenv:Envelope>

```

Table 6 Example response

```

<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <soapenv:Body>
    <ns1:TrafficFluencyResponse xmlns="http://www.gofore.com/sujuvuus/schemas" xmlns:ns1="http://www.gofore.com/sujuvuus/schemas">
      <ns1:timestamp>
        <ns1:utc>2008-10-09T10:06:49Z</ns1:utc>
        <ns1:localtime>2008-10-09T13:06:49+03:00</ns1:localtime>
      </ns1:timestamp>
      <ns1:laststaticdataupdate>2008-09-30T21:00:00Z</ns1:laststaticdataupdate>
      <ns1:linkdynamicdata>
        <ns1:linkstat>
          <ns1:linkno>0</ns1:linkno>
          <ns1:measurementtime>
            <ns1:utc>2008-10-09T10:06:00Z</ns1:utc>
            <ns1:localtime>2008-10-09T13:06:00+03:00</ns1:localtime>
          </ns1:measurementtime>
          <ns1:journeytimenow>466</ns1:journeytimenow>
          <ns1:midspeednow>54.108</ns1:midspeednow>
          <ns1:fluencyclassnow>5</ns1:fluencyclassnow>
          <ns1:nobs>-1</ns1:nobs>
        </ns1:linkstat>
      </ns1:linkdynamicdata>
    </ns1:TrafficFluencyResponse>
  </soapenv:Body>
</soapenv:Envelope>

```

```
<ns1:linkno>1</ns1:linkno>
<ns1:measurementtime>
  <ns1:utc>2008-10-09T10:06:00Z</ns1:utc>
  <ns1:localtime>2008-10-09T13:06:00+03:00</ns1:localtime>
</ns1:measurementtime>
<ns1:journeytimenow>412</ns1:journeytimenow>
<ns1:midspeednow>63.166</ns1:midspeednow>
<ns1:fluencyclassnow>5</ns1:fluencyclassnow>
<ns1:nobs>-1</ns1:nobs>
</ns1:linkstat>
</ns1:linkdynamicdata>
</ns1:TrafficFluencyResponse>
</soapenv:Body>
</soapenv:Envelope>
```

4.1 Elements

- **timestamp** timestamp of the latest update of the message, both in UTC time zone and local (Finnish) time zone
- **laststaticdataupdate** timestamp of the latest update of the link static data in UTC time zone
- **linkstat** data for a single link
- **linkno** link identifier
- **measurementtime** timestamp of median calculation for this link, in UTC and Finnish time zones
- **journeytimenow** median of travel times for this link, based on 5 minutes, in seconds
- **midspeednow** a decimal number for average speed in km/h, calculated based on the median travel time
- **fluencyclassnow** index of the fluency class
 - **1** = stationary traffic
 - **2** = queuing traffic
 - **3** = slow traffic
 - **4** = heavy traffic
 - **5** = traffic flowing freely
- **nobs** number of observations that were used to calculate the median journey time. -1 unknown.

5 History data for previous day

WSDL: <http://stp.gofore.com/sujuvuus/ws/dayData?wsdl>

The message contains for each link all the median data from the previous day: median travel time, average speed and fluency class. The message contains all the available medians for each link, so there are (at most) 1440 medians per each link.

A batch process updates the messages once each day. The updated message is available at 02:30 Finnish time each night.

Due to the large size of the message, it must not be retrieved more than once per each day.

Table 7 WSDL

```
<wsdl:definitions targetNamespace="http://www.gofore.com/sujuvuus/schemas"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" xmlns:schema="http://www.gofore.com/sujuvuus/schemas"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/">
  <wsdl:types>
    <xsd:schema elementFormDefault="qualified"
targetNamespace="http://www.gofore.com/sujuvuus/schemas"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:suj="http://www.gofore.com/sujuvuus/schemas">
      <xsd:element name="DayData">
        <xsd:complexType/>
      </xsd:element>
      <xsd:element name="DayDataResponse">
        <xsd:complexType>
          <xsd:sequence>
            <xsd:element name="timestamp" type="suj:ObstimeType"/>
            <xsd:element name="laststaticdataupdate" type="xsd:dateTime" />
            <xsd:element name="linkdynamicdata">
              <xsd:complexType>
                <xsd:sequence>
                  <xsd:element maxOccurs="unbounded" name="linkstat"
type="suj:LinkStatType"/>
                </xsd:sequence>
              </xsd:complexType>
            </xsd:element>
          </xsd:sequence>
        </xsd:complexType>
      </xsd:element>
      <xsd:complexType name="LinkStatType">
        <xsd:sequence>
          <xsd:element maxOccurs="unbounded" name="d">
            <xsd:complexType>
              <xsd:attribute name="m" type="xsd:nonNegativeInteger"/>
              <xsd:attribute name="tt" type="xsd:float"/>
              <xsd:attribute name="sp" type="xsd:float"/>
              <xsd:attribute name="fc" type="xsd:nonNegativeInteger"/>
              <xsd:attribute name="nobs" type="xsd:integer"/>
            </xsd:complexType>
          </xsd:element>
        </xsd:sequence>
        <xsd:attribute name="linkno" type="xsd:nonNegativeInteger"/>
      </xsd:complexType>
      <xsd:complexType name="ObstimeType">
        <xsd:sequence>
          <xsd:element name="utc" type="xsd:dateTime"/>
          <xsd:element name="localtime" type="xsd:dateTime"/>
        </xsd:sequence>
      </xsd:complexType>
    </xsd:schema>
  </wsdl:types>

```

```

        <xsd:simpleType name="LinkNumberType">
            <xsd:restriction base="xsd:nonNegativeInteger"/>
        </xsd:simpleType>
    </xsd:schema>
</wsdl:types>
<wsdl:message name="DayData">
    <wsdl:part element="schema:DayData" name="DayData"/>
</wsdl:message>
<wsdl:message name="DayDataResponse">
    <wsdl:part element="schema:DayDataResponse" name="DayDataResponse"/>
</wsdl:message>
<wsdl:portType name="DayDataPort">
    <wsdl:operation name="DayData">
        <wsdl:input message="schema:DayData" name="DayData"/>
        <wsdl:output message="schema:DayDataResponse" name="DayDataResponse"/>
    </wsdl:operation>
</wsdl:portType>
<wsdl:binding name="DayDataBinding" type="schema:DayDataPort">
    <soap:binding style="document" transport="http://schemas.xmlsoap.org/soap/http"/>
    <wsdl:operation name="DayData">
        <soap:operation soapAction=""/>
        <wsdl:input name="DayData">
            <soap:body use="literal"/>
        </wsdl:input>
        <wsdl:output name="DayDataResponse">
            <soap:body use="literal"/>
        </wsdl:output>
    </wsdl:operation>
</wsdl:binding>
<wsdl:service name="DayDataService">
    <wsdl:port binding="schema:DayDataBinding" name="DayDataPort">
        <soap:address location="http://localhost:8180/sujuvuus-webapp-1.0-SNAPSHOT/ws"/>
    </wsdl:port>
</wsdl:service>
</wsdl:definitions>

```

Table 8 Example request

```

<soapenv:Envelope
  xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:sch="http://www.gofore.com/sujuvuus/schemas">
  <soapenv:Header />
  <soapenv:Body>
    <sch:DayData />
  </soapenv:Body>
</soapenv:Envelope>

```

Table 9 Example response

```

<SOAP-ENV:Envelope
  xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <SOAP-ENV:Header />
  <SOAP-ENV:Body>
    <DayDataResponse
      xmlns="http://www.gofore.com/sujuvuus/schemas">
      <timestamp>
        <utc>2008-02-06T11:43:00Z</utc>
        <localtime>2008-02-06T13:43:00+02:00</localtime>
      </timestamp>
      <laststaticdataupdate>2008-09-30T21:00:00Z</laststaticdataupdate>
      <linkdynamicdata>
        <linkstat linkno="0">
          <d m="0" tt="577234" sp="5.0" fc="1" nobs="-1" />
          <d m="1" tt="577235" sp="5.1" fc="1" nobs="-1" />
          <d m="2" tt="577236" sp="5.2" fc="1" nobs="-1" />
          <d m="3" tt="577237" sp="5.3" fc="1" nobs="-1" />
          <d m="4" tt="577238" sp="5.4" fc="1" nobs="-1" />
          <d m="5" tt="577239" sp="5.5" fc="1" nobs="-1" />
        </linkstat>
      </linkdynamicdata>
    </DayDataResponse>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

```

<d m="6" tt="577240" sp="5.6" fc="1" nobs="-1" />
<d m="7" tt="577241" sp="5.7" fc="1" nobs="-1" />
<d m="8" tt="577242" sp="5.8" fc="1" nobs="-1" />
<d m="9" tt="577243" sp="5.9" fc="1" nobs="-1" />
. . . . .
<d m="1432" tt="578666" sp="48.2" fc="3" nobs="-1" />
<d m="1433" tt="578667" sp="48.3" fc="3" nobs="-1" />
<d m="1434" tt="578668" sp="48.4" fc="3" nobs="-1" />
<d m="1435" tt="578669" sp="48.5" fc="3" nobs="-1" />
<d m="1436" tt="578670" sp="48.6" fc="3" nobs="-1" />
<d m="1437" tt="578671" sp="48.7" fc="3" nobs="-1" />
<d m="1438" tt="578672" sp="48.8" fc="3" nobs="-1" />
<d m="1439" tt="578673" sp="48.9" fc="3" nobs="-1" />
</linkstat>
<linkstat linkno="1">
  <d m="0" tt="577234" sp="5.0" fc="1" nobs="-1" />
  <d m="1" tt="577235" sp="5.1" fc="1" nobs="-1" />
  <d m="2" tt="577236" sp="5.2" fc="1" nobs="-1" />
  <d m="3" tt="577237" sp="5.3" fc="1" nobs="-1" />
  <d m="4" tt="577238" sp="5.4" fc="1" nobs="-1" />
  <d m="5" tt="577239" sp="5.5" fc="1" nobs="-1" />
  <d m="6" tt="577240" sp="5.6" fc="1" nobs="-1" />
  <d m="7" tt="577241" sp="5.7" fc="1" nobs="-1" />
. . . . .
  <d m="1434" tt="578668" sp="48.4" fc="3" nobs="-1" />
  <d m="1435" tt="578669" sp="48.5" fc="3" nobs="-1" />
  <d m="1436" tt="578670" sp="48.6" fc="3" nobs="-1" />
  <d m="1437" tt="578671" sp="48.7" fc="3" nobs="-1" />
  <d m="1438" tt="578672" sp="48.8" fc="3" nobs="-1" />
  <d m="1439" tt="578673" sp="48.9" fc="3" nobs="-1" />
</linkstat>
</linkdynamicdata>
</DayDataResponse>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

5.1 Elements

- **timestamp** timestamp of the latest update of the message, both in UTC time zone and local (Finnish) time zone
- **laststaticdataupdate** timestamp of the latest update of the link static data in UTC time zone
- **linkstat** data for a single link. Attribute linkno = link identifier
- **d** data for one minute, attributes:
 - **m** index of the minute. 0 = 00:00, 60 = 01:00, 1439 = 23:59
 - **tt** median travel time, in seconds
 - **sp** average speed, km/h
 - **fc** = fluency class, see Virhe: Viitteen lähde ei löydy
- **nobs** number of observations that were used to calculate the median journey time. -1 unknown.

6 Average medians for previous day

WSDL: <http://stp.gofore.com/sujuvuus/ws/averageDayData?wsdl>

The message contains average median data calculated for the previous day. Averages are calculated from the data for the last 12 weeks. The message contains averages to the previous weekday. When requested on Wednesday, the message contains averages for the 12 previous Tuesdays.

The message contains average medians for each link, for each minute of the previous weekday. As in "history data for previous day" –message, each link has 1440 rows of data (at most).

A batch process updates the messages once each day. The updated message is available at 03:00 Finnish time each night.

Due to the large size of the message, it must not be retrieved more than once per each day.

Table 10 WSDL

```
<wsdl:definitions targetNamespace="http://www.gofore.com/sujuvuus/schemas"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" xmlns:schema="http://www.gofore.com/sujuvuus/schemas"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/">
  <wsdl:types>
    <xsd:schema elementFormDefault="qualified"
targetNamespace="http://www.gofore.com/sujuvuus/schemas"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:suj="http://www.gofore.com/sujuvuus/schemas">
      <xsd:element name="AverageDayData">
        <xsd:complexType/>
      </xsd:element>
      <xsd:element name="AverageDayDataResponse">
        <xsd:complexType>
          <xsd:sequence>
            <xsd:element name="timestamp" type="suj:ObstimeType"/>
            <xsd:element name="laststaticdataupdate" type="xsd:dateTime" />
            <xsd:element name="weekday" type="xsd:string"/>
            <xsd:element name="linkdynamicdata">
              <xsd:complexType>
                <xsd:sequence>
                  <xsd:element maxOccurs="unbounded" name="linkstat"
type="suj:LinkStatType"/>
                </xsd:sequence>
              </xsd:complexType>
            </xsd:element>
          </xsd:sequence>
        </xsd:complexType>
      </xsd:element>
      <xsd:complexType name="ObstimeType">
        <xsd:sequence minOccurs="0">
          <xsd:element minOccurs="0" name="utc" type="xsd:dateTime"/>
          <xsd:element minOccurs="0" name="localtime" type="xsd:dateTime"/>
        </xsd:sequence>
      </xsd:complexType>
      <xsd:complexType name="LinkStatType">
        <xsd:sequence>
          <xsd:element maxOccurs="unbounded" name="d">
            <xsd:complexType/>
          </xsd:element>
        </xsd:sequence>
      </xsd:complexType>
    </xsd:schema>
  </wsdl:types>
</wsdl:definitions>
```

```

        <xsd:attribute name="m" type="xsd:nonNegativeInteger"/>
        <xsd:attribute name="tt" type="xsd:float"/>
        <xsd:attribute name="sp" type="xsd:float"/>
    </xsd:complexType>
</xsd:element>
</xsd:sequence>
<xsd:attribute name="linkno" type="xsd:nonNegativeInteger"/>
</xsd:complexType>
<xsd:simpleType name="LinkNumberType">
    <xsd:restriction base="xsd:nonNegativeInteger"/>
</xsd:simpleType>
</xsd:schema>
</wsdl:types>
<wsdl:message name="AverageDayDataResponse">
    <wsdl:part element="schema:AverageDayDataResponse" name="AverageDayDataResponse"/>
</wsdl:message>
<wsdl:message name="AverageDayData">
    <wsdl:part element="schema:AverageDayData" name="AverageDayData"/>
</wsdl:message>
<wsdl:portType name="AverageDayDataPort">
    <wsdl:operation name="AverageDayData">
        <wsdl:input message="schema:AverageDayData" name="AverageDayData"/>
        <wsdl:output message="schema:AverageDayDataResponse" name="AverageDayDataResponse"/>
    </wsdl:operation>
</wsdl:portType>
<wsdl:binding name="AverageDayDataBinding" type="schema:AverageDayDataPort">
    <soap:binding style="document" transport="http://schemas.xmlsoap.org/soap/http"/>
    <wsdl:operation name="AverageDayData">
        <soap:operation soapAction=""/>
        <wsdl:input name="AverageDayData">
            <soap:body use="literal"/>
        </wsdl:input>
        <wsdl:output name="AverageDayDataResponse">
            <soap:body use="literal"/>
        </wsdl:output>
    </wsdl:operation>
</wsdl:binding>
<wsdl:service name="AverageDayDataService">
    <wsdl:port binding="schema:AverageDayDataBinding" name="AverageDayDataPort">
        <soap:address location="http://localhost:8180/sujuvuus-webapp-1.0-SNAPSHOT/ws"/>
    </wsdl:port>
</wsdl:service>
</wsdl:definitions>

```

Table 11 Example request

```

<soapenv:Envelope
  xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:sch="http://www.gofore.com/sujuvuus/schemas">
  <soapenv:Header />
  <soapenv:Body>
    <sch:AverageDayData />
  </soapenv:Body>
</soapenv:Envelope>

```

Table 12 Example response

```

<SOAP-ENV:Envelope
  xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <SOAP-ENV:Header />
  <SOAP-ENV:Body>
    <AverageDayDataResponse
      xmlns="http://www.gofore.com/sujuvuus/schemas">
      <timestamp>
        <utc>2008-02-06T11:32:12Z</utc>
        <localtime>2008-02-06T13:32:12+02:00</localtime>
      </timestamp>
      <laststaticdataupdate>2008-09-30T21:00:00Z</laststaticdataupdate>
    </AverageDayDataResponse>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

```

<weekday>Tuesday</weekday>
<linkdynamicdata>
  <linkstat linkno="0">
    <d m="0" tt="522182" sp="0.0" />
    <d m="1" tt="521795" sp="0.0" />
    <d m="2" tt="521796" sp="0.0" />
    <d m="3" tt="521797" sp="0.0" />
    <d m="4" tt="521798" sp="0.0" />
    <d m="5" tt="521799" sp="0.0" />
    <d m="6" tt="521800" sp="0.0" />
    <d m="7" tt="521801" sp="0.0" />
    <d m="8" tt="521802" sp="0.0" />
    <d m="9" tt="521803" sp="0.0" />
    <d m="10" tt="521804" sp="0.0" />
    <d m="11" tt="521805" sp="0.0" />
    . . .
    <d m="1431" tt="523225" sp="0.0" />
    <d m="1432" tt="523226" sp="0.0" />
    <d m="1433" tt="523227" sp="0.0" />
    <d m="1434" tt="523228" sp="0.0" />
    <d m="1435" tt="523229" sp="0.0" />
    <d m="1436" tt="523230" sp="0.0" />
    <d m="1437" tt="523231" sp="0.0" />
    <d m="1438" tt="523232" sp="0.0" />
    <d m="1439" tt="523233" sp="0.0" />
  </linkstat>
</linkdynamicdata>
</AverageDayDataResponse>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

6.1 Elements

- **timestamp** timestamp of the latest update of the message, both in UTC time zone and local (Finnish) time zone
- **laststaticdataupdate** timestamp of the latest update of the link static data in UTC time zone
- **weekday** name of the weekday the data is for (in English)
- **linkstat** data for a single link. Attribute linkno = link identifier
- **d** data for one minute, attributes:
 - **m** index of the minute. 0 = 00:00, 60 = 01:00, 1439 = 23:59
 - **tt** average median travel time, in seconds
 - **sp** average speed, km/h

7 Current data from LAM stations

WSDL: <http://stp.gofore.com/sujuvuus/ws/lamData?wsdl>

The message contains the latest measurement data from LAM stations.

The message contains, for each LAM station, traffic volume in both directions and average speed in both directions.

The message is updated when we receive new LAM station data from Tiehallinto's server. Typically this is once per 5 minutes.

Table 13 WSDL

```
<wsdl:definitions targetNamespace="http://www.gofore.com/sujuvuus/schemas"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" xmlns:schema="http://www.gofore.com/sujuvuus/schemas"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/">
  <wsdl:types>
    <xsd:schema elementFormDefault="qualified"
targetNamespace="http://www.gofore.com/sujuvuus/schemas"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:suj="http://www.gofore.com/sujuvuus/schemas">
      <xsd:element name="LamData">
        <xsd:complexType/>
      </xsd:element>
      <xsd:element name="LamDataResponse">
        <xsd:complexType>
          <xsd:sequence>
            <xsd:element name="timestamp" type="suj:ObstimeType"/>
            <xsd:element name="laststaticdataupdate" type="xsd:dateTime" />
            <xsd:element name="lamdynamicdata">
              <xsd:complexType>
                <xsd:sequence>
                  <xsd:element maxOccurs="unbounded" name="lamdata"
type="suj:LamDataType"/>
                </xsd:sequence>
              </xsd:complexType>
            </xsd:element>
          </xsd:sequence>
        </xsd:complexType>
      </xsd:element>
      <xsd:complexType name="LamDataType">
        <xsd:sequence>
          <xsd:element name="lamid" type="suj:LamIdType"/>
          <xsd:element name="measurementtime" type="suj:ObstimeType"/>
          <xsd:element name="trafficvolume1" type="xsd:nonNegativeInteger"/>
          <xsd:element name="trafficvolume2" type="xsd:nonNegativeInteger"/>
          <xsd:element name="averagespeed1">
            <xsd:simpleType>
              <xsd:restriction base="xsd:float">
                <xsd:minExclusive value="0.0"/>
              </xsd:restriction>
            </xsd:simpleType>
          </xsd:element>
          <xsd:element name="averagespeed2">
            <xsd:simpleType>
              <xsd:restriction base="xsd:float">
                <xsd:minInclusive value="0.0"/>
              </xsd:restriction>
            </xsd:simpleType>
          </xsd:element>
        </xsd:sequence>
      </xsd:complexType>
      <xsd:complexType name="ObstimeType">
        <xsd:sequence>
```

```

        <xsd:element name="utc" type="xsd:dateTime"/>
        <xsd:element name="localtime" type="xsd:dateTime"/>
    </xsd:sequence>
</xsd:complexType>
<xsd:simpleType name="LamIdType">
    <xsd:restriction base="xsd:nonNegativeInteger"/>
</xsd:simpleType>
</xsd:schema>
</wsdl:types>
<wsdl:message name="LamData">
    <wsdl:part element="schema:LamData" name="LamData"/>
</wsdl:message>
<wsdl:message name="LamDataResponse">
    <wsdl:part element="schema:LamDataResponse" name="LamDataResponse"/>
</wsdl:message>
<wsdl:portType name="LamDataPort">
    <wsdl:operation name="LamData">
        <wsdl:input message="schema:LamData" name="LamData"/>
        <wsdl:output message="schema:LamDataResponse" name="LamDataResponse"/>
    </wsdl:operation>
</wsdl:portType>
<wsdl:binding name="LamDataBinding" type="schema:LamDataPort">
    <soap:binding style="document" transport="http://schemas.xmlsoap.org/soap/http"/>
    <wsdl:operation name="LamData">
        <soap:operation soapAction=""/>
        <wsdl:input name="LamData">
            <soap:body use="literal"/>
        </wsdl:input>
        <wsdl:output name="LamDataResponse">
            <soap:body use="literal"/>
        </wsdl:output>
    </wsdl:operation>
</wsdl:binding>
<wsdl:service name="LamDataService">
    <wsdl:port binding="schema:LamDataBinding" name="LamDataPort">
        <soap:address location="http://localhost:8180/sujuvuus-webapp-1.0-SNAPSHOT/ws"/>
    </wsdl:port>
</wsdl:service>
</wsdl:definitions>

```

Table 14 Example request

```

<soapenv:Envelope
  xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:sch="http://www.gofore.com/sujuvuus/schemas">
  <soapenv:Header />
  <soapenv:Body>
    <sch:LamData />
  </soapenv:Body>
</soapenv:Envelope>

```

```

<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <soapenv:Body>
    <ns1:LamDataResponse xmlns="http://www.gofore.com/sujuvuus/schemas"
      xmlns:ns1="http://www.gofore.com/sujuvuus/schemas">
      <ns1:timestamp>
        <ns1:utc>2008-10-09T10:26:01Z</ns1:utc>
        <ns1:localtime>2008-10-09T13:26:01+03:00</ns1:localtime>
      </ns1:timestamp>
      <ns1:laststaticdataupdate>2008-09-30T21:00:00Z</ns1:laststaticdataupdate>
      <ns1:lamdynamicdata>
        <ns1:lamdata>
          <ns1:lamid>460</ns1:lamid>
          <ns1:measurementtime>
            <ns1:utc>2008-10-09T10:21:00Z</ns1:utc>
            <ns1:localtime>2008-10-09T13:21:00+03:00</ns1:localtime>
          </ns1:measurementtime>
          <ns1:trafficvolume1>63</ns1:trafficvolume1>
          <ns1:trafficvolume2>0</ns1:trafficvolume2>
          <ns1:averagespeed1>63</ns1:averagespeed1>
        </ns1:lamdata>
      </ns1:lamdynamicdata>
    </ns1:LamDataResponse>
  </soapenv:Body>
</soapenv:Envelope>

```

```
<ns1:averagespeed2>12</ns1:averagespeed2>
</ns1:lamdata>
<ns1:lamdata>
  <ns1:lamid>521</ns1:lamid>
  <ns1:measurementtime>
    <ns1:utc>2008-10-09T10:13:00Z</ns1:utc>
    <ns1:localtime>2008-10-09T13:13:00+03:00</ns1:localtime>
  </ns1:measurementtime>
  <ns1:trafficvolume1>17</ns1:trafficvolume1>
  <ns1:trafficvolume2>19</ns1:trafficvolume2>
  <ns1:averagespeed1>95</ns1:averagespeed1>
  <ns1:averagespeed2>95</ns1:averagespeed2>
</ns1:lamdata>
</ns1:lamdynamicdata>
</ns1:LamDataResponse>
</soapenv:Body>
</soapenv:Envelope>
```

7.1 Elements

- **timestamp** timestamp of the latest update of the message, both in UTC time zone and local (Finnish) time zone
- **laststaticdataupdate** timestamp of the latest update of the LAM static data in UTC time zone
- **lamdata** data for one LAM station
- **lamid** LAM station identifier
- **measurementtime** timestamp of median calculation for this link, in UTC and Finnish time zones
- **trafficvolume1** traffic volume, in 5 minutes, to direction 1
- **trafficvolume2** traffic volume, in 5 minutes, to direction 2
- **averagespeed1** average speed to direction 1
- **averagespeed2** average speed to direction 2

8 Current free flow speeds

WSDL: <http://stp.gofore.com/sujuvuus/ws/freeFlowSpeeds?wsdl>

The message contains the current free flow speed values for links and LAM stations.

When a link or a LAM station changes from winter speed limits to summer speed limits, or vice versa, the contents of this message change.

A batch process updates the messages once each day. The updated message is available at 03:30 Finnish time each night.

Table 15 WSDL

```
<wsdl:definitions targetNamespace="http://www.gofore.com/sujuvuus/schemas"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" xmlns:schema="http://www.gofore.com/sujuvuus/schemas"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
  <wsdl:types>
    <xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
      elementFormDefault="qualified"
      targetNamespace="http://www.gofore.com/sujuvuus/schemas"
      xmlns:suj="http://www.gofore.com/sujuvuus/schemas">
      <xsd:element name="FreeFlowSpeeds">
        <xsd:complexType />
      </xsd:element>
      <xsd:element name="FreeFlowSpeedsResponse">
        <xsd:complexType>
          <xsd:sequence>
            <xsd:element name="timestamp"
              type="suj:ObstimeType" />
            <xsd:element name="lastlamstaticdataupdate" type="xsd:dateTime" />
            <xsd:element name="lastlinkstaticdataupdate" type="xsd:dateTime" />
            <xsd:element name="linkdynamicdata">
              <xsd:complexType>
                <xsd:sequence>
                  <xsd:element name="linkstat" type="suj:LinkStatType"
maxOccurs="unbounded"/>
                </xsd:sequence>
              </xsd:complexType>
            </xsd:element>
            <xsd:element name="lamdynamicdata">
              <xsd:complexType>
                <xsd:sequence>
                  <xsd:element name="lamstat" type="suj:LamStatType"
maxOccurs="unbounded"/>
                </xsd:sequence>
              </xsd:complexType>
            </xsd:element>
          </xsd:sequence>
        </xsd:complexType>
      </xsd:element>
      <xsd:complexType name="LinkStatType">
        <xsd:sequence>
          <xsd:element name="linkno" type="suj:LinkNumberType"/>
          <xsd:element name="freeflowspeed">
            <xsd:simpleType>
              <xsd:restriction base="xsd:float">
                <xsd:minInclusive value="0.0"/>
              </xsd:restriction>
            </xsd:simpleType>
          </xsd:element>
        </xsd:sequence>
      </xsd:complexType>
      <xsd:complexType name="LamStatType">
```

```

        <xsd:sequence>
          <xsd:element name="lamid" type="suj:LamIdType"/>
          <xsd:element name="freeflowspeed1">
            <xsd:simpleType>
              <xsd:restriction base="xsd:float">
                <xsd:minInclusive value="0.0"/>
              </xsd:restriction>
            </xsd:simpleType>
          </xsd:element>
          <xsd:element name="freeflowspeed2">
            <xsd:simpleType>
              <xsd:restriction base="xsd:float">
                <xsd:minInclusive value="0.0"/>
              </xsd:restriction>
            </xsd:simpleType>
          </xsd:element>
        </xsd:sequence>
      </xsd:complexType>
      <xsd:simpleType name="LinkNumberType">
        <xsd:restriction base="xsd:nonNegativeInteger"/>
      </xsd:simpleType>
      <xsd:simpleType name="LamIdType">
        <xsd:restriction base="xsd:nonNegativeInteger"/>
      </xsd:simpleType>
      <xsd:complexType name="ObstimeType">
        <xsd:sequence>
          <xsd:element name="utc" type="xsd:dateTime" />
          <xsd:element name="localtime" type="xsd:dateTime" />
        </xsd:sequence>
      </xsd:complexType>
    </xsd:schema>
  </wsdl:types>
  <wsdl:message name="FreeFlowSpeeds">
    <wsdl:part element="schema:FreeFlowSpeeds" name="FreeFlowSpeeds"/>
  </wsdl:message>
  <wsdl:message name="FreeFlowSpeedsResponse">
    <wsdl:part element="schema:FreeFlowSpeedsResponse" name="FreeFlowSpeedsResponse"/>
  </wsdl:message>
  <wsdl:portType name="FreeFlowSpeedsPort">
    <wsdl:operation name="FreeFlowSpeeds">
      <wsdl:input message="schema:FreeFlowSpeeds" name="FreeFlowSpeeds"/>
      <wsdl:output message="schema:FreeFlowSpeedsResponse" name="FreeFlowSpeedsResponse"/>
    </wsdl:operation>
  </wsdl:portType>
  <wsdl:binding name="FreeFlowSpeedsBinding" type="schema:FreeFlowSpeedsPort">
    <soap:binding style="document" transport="http://schemas.xmlsoap.org/soap/http"/>
    <wsdl:operation name="FreeFlowSpeeds">
      <soap:operation soapAction="" />
      <wsdl:input name="FreeFlowSpeeds">
        <soap:body use="literal"/>
      </wsdl:input>
      <wsdl:output name="FreeFlowSpeedsResponse">
        <soap:body use="literal"/>
      </wsdl:output>
    </wsdl:operation>
  </wsdl:binding>
  <wsdl:service name="FreeFlowSpeedsService">
    <wsdl:port binding="schema:FreeFlowSpeedsBinding" name="FreeFlowSpeedsPort">
      <soap:address location="http://localhost:8180/sujuvuus-webapp-1.0-SNAPSHOT/ws/freeFlowSpeeds"/>
    </wsdl:port>
  </wsdl:service>
</wsdl:definitions>

```

Table 16 Example request

```

<soapenv:Envelope
  xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:sch="http://www.gofore.com/sujuvuus/schemas">
  <soapenv:Header />
  <soapenv:Body>
    <sch:FreeFlowSpeeds />
  </soapenv:Body>
</soapenv:Envelope>

```

```
</soapenv:Body>
</soapenv:Envelope>
```

Table 17 Example response

```
<soapenv:Envelope
  xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <soapenv:Body>
    <ns1:FreeFlowSpeedsResponse
      xmlns="http://www.gofore.com/sujuvuus/schemas"
      xmlns:ns1="http://www.gofore.com/sujuvuus/schemas">
      <ns1:timestamp>
        <ns1:utc>2008-02-19T14:45:41Z</ns1:utc>
        <ns1:localtime>2008-02-19T16:45:41+02:00</ns1:localtime>
      </ns1:timestamp>
      <ns1:lastlamstaticdataupdate>2008-09-30T21:00:00Z</ns1:lastlamstaticdataupdate>
      <ns1:lastlinkstaticdataupdate>2008-09-30T21:00:00Z</ns1:lastlinkstaticdataupdate>
      <ns1:linkdynamicdata>
        <ns1:linkstat>
          <ns1:linkno>418302</ns1:linkno>
          <ns1:freeflowspeed>110</ns1:freeflowspeed>
        </ns1:linkstat>
        <ns1:linkstat>
          <ns1:linkno>418402</ns1:linkno>
          <ns1:freeflowspeed>110</ns1:freeflowspeed>
        </ns1:linkstat>
      </ns1:linkdynamicdata>
      <ns1:lamdynamicdata>
        <ns1:lamstat>
          <ns1:lamid>161</ns1:lamid>
          <ns1:freeflowspeed1>88</ns1:freeflowspeed1>
          <ns1:freeflowspeed2>100</ns1:freeflowspeed2>
        </ns1:lamstat>
        <ns1:lamstat>
          <ns1:lamid>162</ns1:lamid>
          <ns1:freeflowspeed1>77.125</ns1:freeflowspeed1>
          <ns1:freeflowspeed2>100</ns1:freeflowspeed2>
        </ns1:lamstat>
        <ns1:lamstat>
          <ns1:lamid>163</ns1:lamid>
          <ns1:freeflowspeed1>110</ns1:freeflowspeed1>
          <ns1:freeflowspeed2>100</ns1:freeflowspeed2>
        </ns1:lamstat>
      </ns1:lamdynamicdata>
    </ns1:FreeFlowSpeedsResponse>
  </soapenv:Body>
</soapenv:Envelope>
```

8.1 Elements

- **timestamp** timestamp of the latest update of the message, both in UTC time zone and local (Finnish) time zone
- **lastlamstaticdataupdate** timestamp of the latest update of the LAM static data in UTC time zone
- **lastlinkstaticdataupdate** timestamp of the latest update of the link static data in UTC time zone
- **linkdynamicdata** free flow speeds for links
- **linkstat** data for one link
- **linkno** link identifier
- **freeflowspeed** free flow speed for the link

-
- **lamdynamicdata** free flow speeds for LAM stations
 - **lamstat** data for one LAM station
 - **lamid** LAM station identifier
 - **freeflowspeed1** free flow speed to direction 1
 - **freeflowspeed2** free flow speed to direction 2