

MTA X-tee teenus **uploadMime.v1**
Tehniline kirjeldus
Version 1.1

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1 Sissejuhatus

Käesolev dokument kirjeldab MTA X-tee teenuse uploadMime.v1 tehnilisi aspekte. Teenusega saavad X-tee kliendid edastada manuseid MTA rakendustele.

1.1 Mõisted ja lühendid

Nimetus	Kirjeldus
MIME	Multipurpose Internet Mail Extensions (multipart/related) [1]
MTA	Maksu- ja Tolliamet
SOAPATT	SOAP Messages with Attachments [2]
X-tee	Eesti asutuste ja organisatsioonide vaheline infosüsteemide andmevahetuskiht [3]
X-tee sõnumi protokoll	X-Road: Message Protocol v4.0 [4]
X-tee esindamise protokoll	Third party representation extension of X-Road message protocol [5]

1.2 Viited

- 1: MIME, <https://tools.ietf.org/html/rfc2387>
- 2: SOAPATT, <https://www.w3.org/TR/SOAP-attachments>
- 3: X-tee üldine, <https://www.ria.ee/ee/x-tee.html>
- 4: X-tee sõnumi protokoll, [X-road message protocol](#)
- 5: X-tee esindamise protokoll, [Third party representation extension](#)

2 Kolmanda osapoole esindamine

Kolmanda osapoole esindamiseks võib kasutada X-tee sõnumi protokollil laiendust (vt viide 5). Kolmas osapool lisatakse SOAP sõnumi päiseelemendina (representedParty/partyCode):

```
<repr:representedParty xmlns:repr="http://x-road.eu/xsd/representation.xsd">  
  <repr:partyClass>COM</repr:partyClass>  
  <repr:partyCode>11111111</repr:partyCode>  
</repr:representedParty>
```

Esindaja volituste kontroll lasub MTA rakendusel.

MTA rakendused ning teenuse kasutajad võivad kasutada muid lahendusi kolmanda osapoole esindamiseks.

3 X-tee sõnumid

SOAP ja MIME sõnumid koostatakse vastavalt X-tee sõnumi protokollile [4].

3.1 Päring

Päring on MIME multipart/related formaadis. See koosneb ühest SOAP sõnumist ning ühest manusest. MIME sõnum koostatakse vastavalt X-tee sõnumi [protokollile](#) [4]. WS-I [swaRef](#) ning [MTOM/XOP](#) ei ole toetatud.

3.1.1 SOAP päis

X-tee päis userId on kohustuslik. Kui isikut ei ole võimalik määrata (massandmete edastamine), siis on userId väärtuseks EE000000000000.

X-tee päise service struktuur koosneb järgmistest elementidest:

- xRoadInstance – EE
- memberClass – GOV
- memberCode – 70000349
- subsystemCode – mkriiides
- serviceCode – uploadMime
- serviceVersion – v1

X-tee päise subsystem struktuur koosneb järgmistest elementidest:

- xRoadInstance – EE
- memberClass – GOV
- memberCode – 70000349
- subsystemCode – misp-client

3.1.2 SOAP keha

Keha koosneb järgmistest elementidest (uploadMime/request):

- target – MTA rakenduse kood (“KMD2”). Kohustuslik.
- operation – rakendatava operatsiooni nimi (“vatdeclaration”). Mittekohustuslik.
- file – elemendi atribuut href viitab manuse Content-Id väärtusele. Mittekohustuslik.
- props/prop[unbounded] – lisainfo edastatava manuse kohta. Mittekohustuslik.

3.1.3 Manus

Päringus tohib olla ainult üks manus. Manus on kohustuslik ning asub MIME konteineris kohe peale SOAP sõnumit.

Manuse kodeeringuna on eelistatud binary – Content-Transfer-Encoding: binary

3.2 Vastus

MTA rakenduse vastuse kehas on järgmised elemendid (uploadMimeResponse/response/messages/item[unbounded]):

- code – vastuse kood.
- description – vastuse kirjeldus.

3.3 Veateated

Veateateid on kahte tüüpi – kliendi vead ja teenusepakkuja tehnilised vead. Vead esitatakse standardse SOAP [fault](#) sõnumina.

Kliendi vead on seotud puuduliku sisendiga (valideerimisvead). Näiteks puudub mõni kohustuslik element. Kliendi veale viidatakse SOAP fault struktuuris järgmiselt:

```
<faultcode>env:Client</faultcode>  
<faultstring>Rakenduse kood on kohustuslik</faultstring>
```

Vigade loend:

- Päiseelement 'userId' on kohustuslik
- Rakenduse kood {0} tundmatu
- Rakenduse kood on kohustuslik
- Manust ei leitud. Rakenduse kood {0}

{0} – MTA rakenduse kood (“KMD2”). Elemendi target väärtus.

Tehnilised vead on seotud teenusepakkuja mõne sisemise süsteemi tõrkega. Tehnilisele veale viidatakse SOAP fault struktuuris järgmiselt:

```
<faultcode>env:Server</faultcode>  
<faultstring>An error occurred, please try again later</faultstring>
```

Vigade loend:

- An error occurred, please try again later

4 Näited

Erinevad näidissõnumid.

4.1 MIME päring

HTTP transpordi päis:

```
Content-type: multipart/related; boundary="MIME_boundary"; type="text/xml"; start="<soapPart>"
```

```
--MIME_boundary
```

```
Content-Type: text/xml; charset=utf-8
```

```
Content-Transfer-Encoding: 8bit
```

```
Content-ID: <soapPart>
```

```
<env:Envelope
```

```
  xmlns:env="http://schemas.xmlsoap.org/soap/envelope/"
```

```
  xmlns:id="http://x-road.eu/xsd/identifiers"
```

```
  xmlns:xrd="http://x-road.eu/xsd/xroad.xsd">
```

```
<env:Header>
```

```
  <xrd:client id:objectType="SUBSYSTEM">
```

```
    <id:xRoadInstance>EE</id:xRoadInstance>
```

```
    <id:memberClass>COM</id:memberClass>
```

```
    <id:memberCode>00000000</id:memberCode>
```

```
    <id:subsystemCode>misp-client</id:subsystemCode>
```

```
  </xrd:client>
```

```
  <xrd:service id:objectType="SERVICE">
```

```
    <id:xRoadInstance>EE</id:xRoadInstance>
```

```
    <id:memberClass>GOV</id:memberClass>
```

```
    <id:memberCode>70000349</id:memberCode>
```

```
    <id:subsystemCode>mkriides</id:subsystemCode>
```

```
    <id:serviceCode>uploadMime</id:serviceCode>
```

```
    <id:serviceVersion>v1</id:serviceVersion>
```

```
  </xrd:service>
```

```
  <xrd:userId>EE000000000000</xrd:userId>
```

```
  <xrd:id>4894e35d-bf0f-44a6-867a-8e51f1daa7e1</xrd:id>
```

```
  <xrd:protocolVersion>4.0</xrd:protocolVersion>
```

```
</env:Header>
```

```
<env:Body>
```

```
  <mta:uploadMime xmlns:mta="http://emta-v6.x-road.eu">
```

```
    <request>
```

```
      <target>KMD2</target>
```

```
      <operation>Submit</operation>
```

```
      <file href="cid:6f55eb41-7b72-40fe-bb7f-49bffe9ae4"/>
```

```
      <props>
```

```
        <prop key="lang">et</prop>
```

```
        <prop key="confirmation">TRUE</prop>
```

```
      </props>
```

```
    </request>
```

```
  </mta:uploadMime>
```

```
</env:Body>
```

```
</env:Envelope>
```

```
--MIME_boundary
Content-Type: application/octet-stream
Content-Transfer-Encoding: binary
Content-Disposition: attachment; filename=test.xml
Content-ID: <6f55eb41-7b72-40fe-bb7f-49bffe9ae4>
```

```
<xml>test</xml>
--MIME_boundary--
```

4.2 SOAP vastus

```
<?xml version="1.0" encoding="utf-8"?>
<env:Envelope
  xmlns:env="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:id="http://x-road.eu/xsd/identifiers"
  xmlns:xrd="http://x-road.eu/xsd/xroad.xsd">
  <env:Header>
    <xrd:client id:objectType="SUBSYSTEM">
      <id:xRoadInstance>EE</id:xRoadInstance>
      <id:memberClass>COM</id:memberClass>
      <id:memberCode>00000000</id:memberCode>
      <id:subsystemCode>misp-client</id:subsystemCode>
    </xrd:client>
    <xrd:service id:objectType="SERVICE">
      <id:xRoadInstance>EE</id:xRoadInstance>
      <id:memberClass>GOV</id:memberClass>
      <id:memberCode>70000349</id:memberCode>
      <id:subsystemCode>mkriides</id:subsystemCode>
      <id:serviceCode>uploadMime</id:serviceCode>
      <id:serviceVersion>v1</id:serviceVersion>
    </xrd:service>
    <xrd:userId>EE000000000000</xrd:userId>
    <xrd:id>4894e35d-bf0f-44a6-867a-8e51f1daa7e1</xrd:id>
    <xrd:protocolVersion>4.0</xrd:protocolVersion>
  </env:Header>
  <env:Body>
    <mta:uploadMimeResponse xmlns:mta="http://emta-v6.x-road.eu">
      <request>
        <target>KMD2</target>
        <operation>vatdeclaration</operation>
        <file href="cid:6f55eb41-7b72-40fe-bb7f-49bffe9ae4"/>
        <props>
          <prop key="lang">et</prop>
          <prop key="confirmation">TRUE</prop>
        </props>
      </request>
      <response>
        <messages>
          <item>
            <code>MESSAGE_ID</code>
```

```
    <description>KMD info message</description>
  </item>
</messages>
</response>
</mta:uploadMimeResponse>
</env:Body>
</env:Envelope>
```

4.3 SOAP veateade

```
<?xml version="1.0" encoding="utf-8"?>
<env:Envelope
  xmlns:env="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:id="http://x-road.eu/xsd/identifiers"
  xmlns:xrd="http://x-road.eu/xsd/xroad.xsd">
  <env:Header>
    <xrd:client id:objectType="SUBSYSTEM">
      <id:xRoadInstance>EE</id:xRoadInstance>
      <id:memberClass>COM</id:memberClass>
      <id:memberCode>00000000</id:memberCode>
      <id:subsystemCode>client</id:subsystemCode>
    </xrd:client>
    <xrd:service id:objectType="SERVICE">
      <id:xRoadInstance>EE</id:xRoadInstance>
      <id:memberClass>GOV</id:memberClass>
      <id:memberCode>70000349</id:memberCode>
      <id:subsystemCode>mkriides</id:subsystemCode>
      <id:serviceCode>uploadMime</id:serviceCode>
      <id:serviceVersion>v1</id:serviceVersion>
    </xrd:service>
    <xrd:id>4894e35d-bf0f-44a6-867a-8e51f1daa7e1</xrd:id>
    <xrd:protocolVersion>4.0</xrd:protocolVersion>
  </env:Header>
  <env:Body>
    <env:Fault>
      <faultcode>env:Client</faultcode>
      <faultstring>Päiselement 'userId' on kohustuslik</faultstring>
    </env:Fault>
  </env:Body>
</env:Envelope>
```


4.4 Teenuse WSDL

Teenuse WSDL-i saab alla laadida X-tee turvaserverist:

<https://xtee.ee/cataloguedata/EE/EE/GOV/70000349/mkriides/12.wsdl>

```
<wsdl:definitions name="mkriides" targetNamespace="http://emta-v6.x-road.eu"
  xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
  xmlns:tns="http://emta-v6.x-road.eu"
  xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/"
  xmlns:repr="http://x-road.eu/xsd/representation.xsd"
  xmlns:xrd="http://x-road.eu/xsd/xroad.xsd"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <wsdl:types>
    <schema xmlns="http://www.w3.org/2001/XMLSchema"
      targetNamespace="http://emta-v6.x-road.eu">
      <import namespace="http://x-road.eu/xsd/xroad.xsd"
        schemaLocation="http://x-road.eu/xsd/xroad.xsd"/>
      <import namespace="http://x-road.eu/xsd/representation.xsd"
        schemaLocation="http://x-road.eu/xsd/representation.xsd"/>
      <!--uploadMime Request -->
      <element name="uploadMime">
        <complexType>
          <sequence>
            <element name="request" type="tns:UploadMimeRequestType"/>
          </sequence>
        </complexType>
      </element>
      <complexType name="UploadMimeRequestType">
        <sequence>
          <element name="target" type="string">
            <annotation>
              <appinfo>
                <xrd:title xml:lang="et">Rakenduse kood</xrd:title>
                <xrd:notes xml:lang="et">
                  Maksu- ja Tolliameti rakenduse kood (KMD2, TSD, jne)
                </xrd:notes>
              </appinfo>
            </annotation>
          </element>
          <element minOccurs="0" name="operation" type="string">
            <annotation>
              <appinfo>
```

```
        <xrd:title xml:lang="et">Operatsiooni nimi</xrd:title>
      </appinfo>
    </annotation>
  </element>
  <element minOccurs="0" name="file">
    <annotation>
      <appinfo>
        <xrd:title xml:lang="et">Viide manusele</xrd:title>
      </appinfo>
    </annotation>
    <complexType>
      <simpleContent>
        <extension base="hexBinary">
          <attribute name="href" type="string"/>
        </extension>
      </simpleContent>
    </complexType>
  </element>
  <element minOccurs="0" name="props" type="tns:Properties">
    <annotation>
      <appinfo>
        <xrd:title xml:lang="et">
          Lisainfo manuse kohta
        </xrd:title>
      </appinfo>
    </annotation>
  </element>
</sequence>
</complexType>
<complexType name="Properties">
  <sequence>
    <element maxOccurs="unbounded" name="prop">
      <annotation>
        <appinfo>
          <xrd:title xml:lang="et">Parameetri väärtus</xrd:title>
        </appinfo>
      </annotation>
      <complexType>
        <simpleContent>
          <extension base="string">
            <attribute name="key" type="string" use="required">
              <annotation>
                <appinfo>
                  <xrd:title xml:lang="et">Parameetri nimi</xrd:title>
                </appinfo>
              </annotation>
            </attribute>
          </extension>
        </simpleContent>
      </complexType>
    </element>
  </sequence>
</complexType>
```

```
        </simpleContent>
      </complexType>
    </element>
  </sequence>
</complexType>
<!-- uploadMime Response -->
<element name="uploadMimeResponse">
  <complexType>
    <sequence>
      <element name="request" type="tns:UploadMimeRequestType"/>
      <element name="response" type="tns:UploadMimeResponseType"/>
    </sequence>
  </complexType>
</element>
<complexType name="UploadMimeResponseType">
  <sequence>
    <element name="messages" type="tns:StatusCode">
      <annotation>
        <appinfo>
          <xrd:title xml:lang="et">Rakenduse vastus</xrd:title>
        </appinfo>
      </annotation>
    </element>
  </sequence>
</complexType>
<complexType name="StatusCode">
  <sequence>
    <element maxOccurs="unbounded" name="item">
      <complexType>
        <sequence>
          <element name="code" type="string">
            <annotation>
              <appinfo>
                <xrd:title xml:lang="et">Kood</xrd:title>
              </appinfo>
            </annotation>
          </element>
          <element name="description" type="string">
            <annotation>
              <appinfo>
                <xrd:title xml:lang="et">Kirjeldus</xrd:title>
              </appinfo>
            </annotation>
          </element>
        </sequence>
      </complexType>
    </element>
  </sequence>
</complexType>
</element>
```

```

        </sequence>
    </complexType>
</schema>
</wsdl:types>
<!-- uploadMime SOAP body with attachment (MIME) -->
<wsdl:message name="uploadMime">
    <wsdl:part element="tns:uploadMime" name="parameters"/>
    <wsdl:part type="xsd:base64Binary" name="attachment"/>
</wsdl:message>
<!-- uploadMimeResponse SOAP body -->
<wsdl:message name="uploadMimeResponse">
    <wsdl:part element="tns:uploadMimeResponse" name="parameters"/>
</wsdl:message>
<!-- XRoad SOAP header -->
<wsdl:message name="xrdHeader">
    <wsdl:part element="xrd:client" name="client"/>
    <wsdl:part element="xrd:service" name="service"/>
    <wsdl:part element="repr:representedParty" name="representedParty"/>
    <wsdl:part element="xrd:id" name="id"/>
    <wsdl:part element="xrd:userId" name="userId"/>
    <wsdl:part element="xrd:protocolVersion" name="protocolVersion"/>
</wsdl:message>
<!-- downloadMimeResponse SOAP body with attachment (MIME) -->
<wsdl:portType name="webServiceInterface">
    <wsdl:operation name="uploadMime">
        <wsdl:documentation>
            <xrd:title xml:lang="et">Failide edastamise teenus</xrd:title>
        </wsdl:documentation>
        <wsdl:input message="tns:uploadMime"/>
        <wsdl:output message="tns:uploadMimeResponse"/>
    </wsdl:operation>
</wsdl:portType>
<wsdl:binding name="soapBindings" type="tns:webServiceInterface">
    <soap:binding style="document" transport="http://schemas.xmlsoap.org/soap/http"/>
    <wsdl:operation name="uploadMime">
        <soap:operation soapAction=""/>
        <xrd:version>v1</xrd:version>
        <wsdl:input>
            <mime:multipartRelated xmlns:mime="http://schemas.xmlsoap.org/wsdl/mime/">
                <mime:part>
                    <soap:header message="tns:xrdHeader" part="client" use="literal"/>
                    <soap:header message="tns:xrdHeader" part="service" use="literal"/>
                    <soap:header message="tns:xrdHeader" part="representedParty" use="literal"/>
                    <soap:header message="tns:xrdHeader" part="id" use="literal"/>
                    <soap:header message="tns:xrdHeader" part="userId" use="literal"/>
                    <soap:header message="tns:xrdHeader" part="protocolVersion" use="literal"/>
                </mime:part>
            </mime:multipartRelated>
        </wsdl:input>
    </wsdl:operation>
</wsdl:binding>

```

```
        <soap:body parts="parameters" use="literal"/>
    </mime:part>
    <mime:part>
        <mime:content part="attachment" type="application/octet-stream"/>
    </mime:part>
</mime:multipartRelated>
</wsdl:input>
<wsdl:output>
    <soap:header message="tns:xrdHeader" part="client" use="literal"/>
    <soap:header message="tns:xrdHeader" part="service" use="literal"/>
    <soap:header message="tns:xrdHeader" part="representedParty" use="literal"/>
    <soap:header message="tns:xrdHeader" part="id" use="literal"/>
    <soap:header message="tns:xrdHeader" part="userId" use="literal"/>
    <soap:header message="tns:xrdHeader" part="protocolVersion" use="literal"/>
    <soap:body use="literal"/>
</wsdl:output>
</wsdl:operation>
</wsdl:binding>

<wsdl:service name="webService">
    <wsdl:port binding="tns:soapBindings" name="port">
        <soap:address location="http://SERVER_URL"/>
    </wsdl:port>
</wsdl:service>
</wsdl:definitions>
```