

WSDL Descriptions for SWIM Services

This document contains the full WSDL descriptions for all the Mediator services and Web Services that were used for the courier company examples.

1. Mediator Services

1.1. Parcel Dispatch Request

This is the WSDL description of the parcel dispatch request Mediator Service of the courier company.

```
<definitions xmlns="http://schemas.xmlsoap.org/wsdl/"
  xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  xmlns:mediatorService="http://XYZcourier.com/DispatchRequest.wsdl"
  xmlns:gs="http://startrek.csd.auth.gr/SWIM/mediatorService.xsd"
  targetNamespace="http://XYZcourier.com/DispatchRequest.wsdl"
  name="DispatchRequest">
  <import namespace="http://startrek.csd.auth.gr/SWIM/mediatorService"
    location="http://startrek.csd.auth.gr/SWIM/mediatorService.xsd"/>
  <message name="MediatorServiceInput">
    <part name="input" element="gs:inputElement"/>
    <part name="auxiliary" element="gs:auxiliaryElement"/>
  </message>
  <message name="MediatorServiceOutput">
    <part name="output" element="gs:outputElement"/>
  </message>
  <portType name="MediatorServicePortType">
    <operation name="MediatorService">
      <input message="mediatorService:MediatorServiceInput"/>
      <output message="mediatorService:MediatorServiceOutput"/>
    </operation>
  </portType>
  <binding name="MediatorServiceSoapBinding" type="mediatorService:MediatorServicePortType">
    <soap:binding style="rpc" transport="http://schemas.xmlsoap.org/soap/http"/>
    <operation name="MediatorService">
      <input>
        <soap:body use="literal"/>
      </input>
      <output>
        <soap:body use="literal"/>
      </output>
    </operation>
  </binding>
  <service name="DispatchRequest">
    <port name="MediatorServicePort" binding="mediatorService:MediatorServiceSoapBinding">
      <soap:address location="http://XYZcourier.com/DispatchRequest"/>
    </port>
  </service>
</definitions>
```

1.2. Total Dispatch Weight Request

This is the WSDL description of the total dispatch weight request Mediator Service of the courier company.

Those parts of the description that are similar to the previous example are identified by dots.

```
<definitions xmlns="http://schemas.xmlsoap.org/wsdl/"
  xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  xmlns:mediatorService="http://XYZcourier.com/TotalWeight.wsdl"
  xmlns:gs="http://startrek.csd.auth.gr/SWIM/mediatorService.xsd"
  targetNamespace="http://XYZcourier.com/TotalWeight.wsdl"
  name="TotalWeight">
  ...
  <service name="TotalWeight">
    <port name="MediatorServicePort" binding="mediatorService:MediatorServiceSoapBinding">
      <soap:address location="http://XYZcourier.com/TotalWeight"/>
    </port>
  </service>
</definitions>
```

1.3. Cheapest/Speediest Parcel Dispatch Request

This is the WSDL description of the cheapest/speediest parcel dispatch request Mediator Service of the courier e-mall. Those parts of the description that are similar to the previous examples are marked by dots.

```

<definitions xmlns="http://schemas.xmlsoap.org/wsdl/"
  xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  xmlns:mediatorService="http://courier.org/CheapDispatchRequest.wsdl"
  xmlns:gs="http://startrek.csd.auth.gr/SWIM/mediatorService.xsd"
  targetNamespace="http://courier.org/CheapDispatchRequest.wsdl"
  name="CheapDispatchRequest">
  ...
  <service name="CheapDispatchRequest">
    <port name="MediatorServicePort" binding="mediatorService:MediatorServiceSoapBinding">
      <soap:address location="http://courier.org/CheapDispatchRequest"/>
    </port>
  </service>
</definitions>

```

1.4. *Cheapest/Speediest Delivery Offer Request*

This is the WSDL description of the cheapest/speediest delivery offer request Mediator Service of the courier e-mail regarding a specific parcel dispatch request. Those parts of the description that are similar to the previous examples are marked by dots.

```

<definitions xmlns="http://schemas.xmlsoap.org/wsdl/"
  xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  xmlns:mediatorService="http://courier.org/CheapDeliveryOffer.wsdl"
  xmlns:gs="http://startrek.csd.auth.gr/SWIM/mediatorService.xsd"
  targetNamespace="http://courier.org/CheapDeliveryOffer.wsdl"
  name="CheapDeliveryOffer">
  ...
  <service name="CheapDeliveryOffer">
    <port name="MediatorServicePort" binding="mediatorService:MediatorServiceSoapBinding">
      <soap:address location="http://courier.org/CheapDeliveryOffer"/>
    </port>
  </service>
</definitions>

```

1.5. *Specific Courier Company Parcel Dispatch Request*

This is the WSDL description of the parcel dispatch request Mediator Service of the courier e-mail from a specific courier company. Those parts of the description that are similar to the previous examples are marked by dots.

```

<definitions xmlns="http://schemas.xmlsoap.org/wsdl/"
  xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  xmlns:mediatorService="http://courier.org/CompanyDispatchRequest.wsdl"
  xmlns:gs="http://startrek.csd.auth.gr/SWIM/mediatorService.xsd"
  targetNamespace="http://courier.org/CompanyDispatchRequest.wsdl"
  name="CompanyDispatchRequest">
  ...
  <service name="CompanyDispatchRequest">
    <port name="MediatorServicePort" binding="mediatorService:MediatorServiceSoapBinding">
      <soap:address location="http://courier.org/CompanyDispatchRequest"/>
    </port>
  </service>
</definitions>

```

1.6. *XML Schema for Input/Output Messages*

The XML Schema used for the input/output messages of all Mediator Services is the following:

```

<xs:schema targetNamespace="http://startrek.csd.auth.gr/SWIM/mediatorService.xsd"
  xmlns:ms="http://startrek.csd.auth.gr/SWIM/mediatorService.xsd"
  xmlns:xs="http://www.w3.org/2001/XMLSchema" elementFormDefault="qualified"
  attributeFormDefault="unqualified">
  <xs:element name="attName" type="xs:string"/>
  <xs:element name="attValue" type="xs:string"/>
  <xs:complexType name="pairType">
    <xs:sequence>
      <xs:element ref="ms:attName"/>
      <xs:element ref="ms:attValue"/>
    </xs:sequence>
  </xs:complexType>
  <xs:element name="outputElement">
    <xs:complexType>
      <xs:sequence>

```

```

        <xs:element name="outputVector">
            <xs:complexType>
                <xs:sequence>
                    <xs:element name="pair" type="ms:pairType" maxOccurs="unbounded" />
                </xs:sequence>
            </xs:complexType>
        </xs:element>
    </xs:sequence>
</xs:complexType>
</xs:element>
<xs:element name="inputElement">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="inputVector">
                <xs:complexType>
                    <xs:sequence>
                        <xs:element name="pair" type="ms:pairType" maxOccurs="unbounded" />
                    </xs:sequence>
                </xs:complexType>
            </xs:element>
        </xs:sequence>
    </xs:complexType>
</xs:element>
<xs:element name="auxiliaryElement">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="auxiliaryInputVector">
                <xs:complexType>
                    <xs:sequence>
                        <xs:element name="pair" type="ms:pairType" maxOccurs="unbounded" />
                    </xs:sequence>
                </xs:complexType>
            </xs:element>
        </xs:sequence>
    </xs:complexType>
</xs:element>
</xs:schema>

```

2. Web Services

2.1. Parcel Dispatch Request

This is the WSDL description of the parcel dispatch request Web Service of the courier company's local offices.

```

<definitions xmlns="http://schemas.xmlsoap.org/wsdl/"
    xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
    xmlns:xs="http://www.w3.org/2001/XMLSchema"
    xmlns:webService="http://office1.XYZcourier.com/DispatchRequest.wsdl"
    xmlns:ls="http://startrek.csd.auth.gr/SWIM/webService.xsd"
    targetNamespace="http://office1.XYZcourier.com/DispatchRequest.wsdl"
    name="DispatchRequest">
    <import namespace="http://startrek.csd.auth.gr/SWIM/webService"
        location="http://startrek.csd.auth.gr/SWIM/webService.xsd" />
    <message name="WebServiceInput">
        <part name="input" element="ls:inputElement" />
    </message>
    <message name="WebServiceOutput">
        <part name="output" element="ls:outputElement" />
    </message>
    <portType name="WebServicePortType">
        <operation name="WebService">
            <input message="webService:WebServiceInput" />
            <output message="webService:WebServiceOutput" />
        </operation>
    </portType>
    <binding name="WebServiceSoapBinding" type="webService:WebServicePortType">
        <soap:binding style="rpc" transport="http://schemas.xmlsoap.org/soap/http" />
        <operation name="WebService">
            <input>
                <soap:body use="literal" />
            </input>
            <output>
                <soap:body use="literal" />
            </output>
        </operation>
    </binding>
</definitions>

```

```

</binding>
<service name="DispatchRequest">
  <port name="WebServicePort" binding="webService:WebServiceSoapBinding">
    <soap:address location="http://officel.XYZcourier.com/DispatchRequest"/>
  </port>
</service>
</definitions>

```

2.2. Total Dispatch Weight Request

This is the WSDL description of the total dispatch weight request Web Service of the courier company's local offices. Those parts of the description that are similar to the previous example are identified by dots.

```

<definitions xmlns="http://schemas.xmlsoap.org/wsdl/"
  xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  xmlns:webService="http://officel.XYZcourier.com/TotalWeight.wsdl"
  xmlns:ls="http://startrek.csd.auth.gr/SWIM/webService.xsd"
  targetNamespace="http://officel.XYZcourier.com/TotalWeight.wsdl"
  name="TotalWeight">
  ...
  <service name="TotalWeight">
    <port name="WebServicePort" binding="webService:WebServiceSoapBinding">
      <soap:address location="http://officel.XYZcourier.com/TotalWeight"/>
    </port>
  </service>
</definitions>

```

2.3. Delivery Offer Request

This is the WSDL description of the parcel delivery offer request Web Service of the courier companies. Those parts of the description that are similar to the previous examples are marked by dots.

```

<definitions xmlns="http://schemas.xmlsoap.org/wsdl/"
  xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  xmlns:webService="http://XYZcourier.com/OfferRequest.wsdl"
  xmlns:ls="http://startrek.csd.auth.gr/SWIM/webService.xsd"
  targetNamespace="http://XYZcourier.com/OfferRequest.wsdl"
  name="DispatchRequest">
  ...
  <service name="OfferRequest">
    <port name="WebServicePort" binding="webService:WebServiceSoapBinding">
      <soap:address location="http://XYZcourier.com/OfferRequest"/>
    </port>
  </service>
</definitions>

```

2.4. Specific Courier Company Parcel Dispatch Request

This is the WSDL description of the parcel dispatch request Web Service of a specific courier company. If the courier company supports the SWIM system then this web service is actually the mediator service described in section 1.1. Those parts of the description that are similar to the previous examples are marked by dots.

```

<definitions xmlns="http://schemas.xmlsoap.org/wsdl/"
  xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  xmlns:webService="http://XYZcourier.com/DispatchRequest.wsdl"
  xmlns:ls="http://startrek.csd.auth.gr/SWIM/webService.xsd"
  targetNamespace="http://XYZcourier.com/DispatchRequest.wsdl"
  name="DispatchRequest">
  ...
  <service name="DispatchRequest">
    <port name="WebServicePort" binding="webService:WebServiceSoapBinding">
      <soap:address location="http://XYZcourier.com/DispatchRequest"/>
    </port>
  </service>
</definitions>

```

2.5. XML Schema for Input/Output Messages

The XML Schema used for the input/output messages of all Web Services is the following:

```

<xs:schema targetNamespace="http://startrek.csd.auth.gr/SWIM/webService.xsd"
  xmlns:ws="http://startrek.csd.auth.gr/SWIM/webService.xsd"
  xmlns:xs="http://www.w3.org/2001/XMLSchema" elementFormDefault="qualified"
  attributeFormDefault="unqualified">

```

```

<xs:element name="attName" type="xs:string"/>
<xs:element name="attValue" type="xs:string"/>
<xs:complexType name="pairType">
  <xs:sequence>
    <xs:element ref="ws:attName"/>
    <xs:element ref="ws:attValue"/>
  </xs:sequence>
</xs:complexType>
<xs:element name="outputElement">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="outputVector">
        <xs:complexType>
          <xs:sequence>
            <xs:element name="pair" type="ws:pairType" maxOccurs="unbounded"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
    </xs:sequence>
  </xs:complexType>
</xs:element>
<xs:element name="inputElement">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="inputVector">
        <xs:complexType>
          <xs:sequence>
            <xs:element name="pair" type="ws:pairType" maxOccurs="unbounded"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
    </xs:sequence>
  </xs:complexType>
</xs:element>
</xs:schema>

```