

A. 1- Beispielanwendung SOAP Webservice:

A1-1 WSDL:

```
<?xml version="1.0" encoding="utf-8" ?>
- <wsdl:definitions xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
  xmlns:tm="http://microsoft.com/wsdl/mime/textMatching/"
  xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/"
  xmlns:mime="http://schemas.xmlsoap.org/wsdl/mime/"
  xmlns:tns="http://www.yellowmap.de/Partners/XML/"
  xmlns:s1="http://www.yellowmap.de"
  xmlns:s="http://www.w3.org/2001/XMLSchema"
  xmlns:soap12="http://schemas.xmlsoap.org/wsdl/soap12/"
  xmlns:http="http://schemas.xmlsoap.org/wsdl/http/"
  targetNamespace="http://www.yellowmap.de/Partners/XML/"
  xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
- <wsdl:types>
- <s:schema elementFormDefault="qualified"
  targetNamespace="http://www.yellowmap.de/Partners/XML/">
- <s:import namespace="http://www.yellowmap.de/" />
- <s:element name="GisService">
- <s:complexType>
- <s:sequence>
- <s:element minOccurs="0" maxOccurs="1" name="Query" type="s:string" />
- </s:sequence>
- </s:complexType>
- </s:element>
- <s:element name="GisServiceResponse">
- <s:complexType>
- <s:sequence>
- <s:element minOccurs="0" maxOccurs="1" name="PoiResponse"
  type="s1:CXmlDataPoiV20" />
- </s:sequence>
- </s:complexType>
- </s:element>
- </s:schema>
- <s:schema elementFormDefault="qualified"
  targetNamespace="http://www.yellowmap.de">
- <s:complexType name="CXmlDataPoiV20">
- <s:complexContent mixed="false">
- <s:extension base="s1:CXmlDataService">
- <s:sequence>
- <s:element minOccurs="0" maxOccurs="1" name="Error" type="s1:CResultError" />
- <s:element minOccurs="0" maxOccurs="1" name="Copyright"
  type="s1:CResultCopyright" />
- <s:element minOccurs="0" maxOccurs="1" name="Query" type="s1:CResultQuery" />
- <s:element minOccurs="0" maxOccurs="1" name="ListNav"
  type="s1:CResultListNavigation" />
- <s:element minOccurs="0" maxOccurs="1" name="GeocoderList"
  type="s1:CResultGeocoderList" />
- <s:element minOccurs="0" maxOccurs="1" name="BranchList"
  type="s1:CResultBranchList" />
- <s:element minOccurs="0" maxOccurs="1" name="PoiList" type="s1:CResultPoiList" />
- </s:sequence>
- </s:complexType>
- <s:complexType name="CVal">
- <s:attribute name="Key" type="s:string" />
- <s:attribute name="Content" type="s:string" />
- </s:complexType>
- <s:complexType name="CResultListNavigation">
- <s:sequence>
- <s:element minOccurs="1" maxOccurs="1" name="CurrentP" type="s:unsignedShort" />
- <s:element minOccurs="1" maxOccurs="1" name="MaxP" type="s:unsignedShort" />
- <s:element minOccurs="1" maxOccurs="1" name="Count" type="s:unsignedInt" />
- <s:element minOccurs="1" maxOccurs="1" name="SortBy" type="s:unsignedShort" />
- <s:element minOccurs="1" maxOccurs="1" name="View" type="s:unsignedShort" />
- <s:element minOccurs="0" maxOccurs="unbounded" name="NavItm"
  type="s1:CListNavigation" />
- </s:sequence>
- </s:complexType>
- <s:complexType name="CListNavigation">
- <s:attribute name="Role" type="s1:LIST_NAVIGATION_ROLE" use="required" />
- <s:attribute name="ServiceRef" type="s:string" />
- <s:attribute name="QueryStr" type="s:string" />
- <s:attribute name="Comma" type="s:string" />
- <s:attribute name="Vals" type="s:string" />
- </s:complexType>
- <s:simpleType name="LIST_NAVIGATION_ROLE">
- <s:restriction base="s:string">
- <s:enumeration value="SORT_BY" />
- <s:enumeration value="PAGING" />
- <s:enumeration value="LETTER" />
- <s:enumeration value="VIEW" />
- <s:enumeration value="MAP_NAV" />
- </s:restriction>
- </s:simpleType>
- <s:complexType name="CResultGeocoderList">
- <s:sequence>
- <s:element minOccurs="0" maxOccurs="1" name="Paras" type="s1:CParasList" />
- </s:sequence>
- </s:complexType>
- <s:complexType name="CParasList">
- <s:sequence>
- <s:element minOccurs="0" maxOccurs="unbounded" name="Para" type="s1:CPara" />
- </s:sequence>
- <s:attribute name="Name" type="s:string" />
- <s:attribute name="ServiceRef" type="s:string" />
- <s:attribute name="QueryStr" type="s:string" />
- <s:attribute name="Count" type="s:unsignedInt" use="required" />
- </s:complexType>
- <s:complexType name="CPara">
- <s:sequence>
- <s:element minOccurs="0" maxOccurs="1" name="GeoItm" type="s1:CGeocoderRef" />
- <s:element minOccurs="0" maxOccurs="1" name="BITm" type="s1:CBranchItem" />
- <s:attribute name="Val" type="s:string" />
- </s:sequence>
- </s:complexType>
- <s:complexType name="CVal">
- <s:sequence>
- <s:element minOccurs="0" maxOccurs="1" name="Zip" type="s:string" />
- <s:element minOccurs="0" maxOccurs="1" name="Twn" type="s:string" />
- <s:element minOccurs="0" maxOccurs="1" name="Twn2" type="s:string" />
- <s:element minOccurs="0" maxOccurs="1" name="Ct" type="s:string" />
- <s:element minOccurs="0" maxOccurs="1" name="Str" type="s:string" />
- <s:element minOccurs="0" maxOccurs="1" name="HNo" type="s:string" />
- <s:element minOccurs="0" maxOccurs="1" name="Firm" type="s:string" />
- <s:element minOccurs="0" maxOccurs="1" name="Cwd" type="s:string" />
- <s:element minOccurs="0" maxOccurs="1" name="BName" type="s:string" />
- <s:element minOccurs="0" maxOccurs="1" name="BC" type="s:string" />
- <s:element minOccurs="0" maxOccurs="1" name="BCOperator" type="s:string" />
- <s:element minOccurs="0" maxOccurs="1" name="BCName" type="s:string" />
- <s:element minOccurs="0" maxOccurs="1" name="CstVals" type="s1:CstVals" />
- <s:element minOccurs="0" maxOccurs="1" name="BitCatIds" type="s:string" />
- <s:element minOccurs="0" maxOccurs="1" name="BitCatOperator" type="s:string" />
- <s:element minOccurs="0" maxOccurs="1" name="DateStart" type="s:string" />
- <s:element minOccurs="0" maxOccurs="1" name="DateEnd" type="s:string" />
- <s:element minOccurs="0" maxOccurs="1" name="PoiFeatureIds" type="s:string" />
- <s:element minOccurs="0" maxOccurs="1" name="PoiFeatureOperator"
  type="s:string" />
- </s:sequence>
- </s:complexType>
- <s:complexType name="CstVals">
- <s:sequence>
- <s:element minOccurs="0" maxOccurs="unbounded" name="Val" type="s1:CVal" />
- </s:sequence>
- </s:complexType>
- <s:complexType name="CGeocoderRef">
- <s:sequence>
- <s:element minOccurs="0" maxOccurs="1" name="Ct" type="s:string" />
- <s:element minOccurs="0" maxOccurs="1" name="Twn" type="s:string" />
- <s:element minOccurs="0" maxOccurs="1" name="Twn2" type="s:string" />
- <s:element minOccurs="0" maxOccurs="1" name="Zip" type="s:string" />
- <s:element minOccurs="0" maxOccurs="1" name="Str" type="s:string" />
- <s:element minOccurs="0" maxOccurs="1" name="HNo" type="s:string" />
- <s:element minOccurs="0" maxOccurs="1" name="X" type="s:string" />
- <s:element minOccurs="0" maxOccurs="1" name="Y" type="s:string" />
- </s:sequence>
- <s:attribute name="Main" type="s:string" />
- <s:attribute name="Weight" type="s:string" />
- <s:attribute name="Radius" type="s:string" />
- </s:complexType>
- <s:complexType name="CBranchItem">
- <s:sequence>
- <s:element minOccurs="0" maxOccurs="1" name="BName" type="s:string" />
- <s:element minOccurs="0" maxOccurs="1" name="Cwds" type="s:string" />
- </s:sequence>
- </s:complexType>
- <s:complexType name="CResultBranchList">
- <s:sequence>
- <s:element minOccurs="0" maxOccurs="1" name="Paras" type="s1:CParasList" />
- </s:sequence>
- </s:complexType>
- <s:complexType name="CResultPoiList">
- <s:sequence>
- <s:element minOccurs="0" maxOccurs="unbounded" name="Poi" type="s1:CPoiItem" />
- </s:sequence>
- </s:complexType>
- <s:complexType name="CPoiItem">
- <s:sequence>
- <s:element minOccurs="0" maxOccurs="1" name="Adr" type="s1:CAddress" />
- <s:element minOccurs="0" maxOccurs="1" name="Dist" type="s:string" />
- <s:element minOccurs="0" maxOccurs="1" name="RouteDist" type="s:string" />
- <s:element minOccurs="0" maxOccurs="1" name="RouteTime" type="s:string" />
- <s:element minOccurs="0" maxOccurs="1" name="LengthUnit" type="s:string" />
- <s:element minOccurs="0" maxOccurs="1" name="Cwds" type="s:string" />
- <s:element minOccurs="0" maxOccurs="1" name="BNames" type="s:string" />
- <s:element minOccurs="0" maxOccurs="1" name="InfoTxt" type="s1:CInfoText" />
- <s:element minOccurs="0" maxOccurs="1" name="Event" type="s1:CEvent" />
- <s:element minOccurs="0" maxOccurs="unbounded" name="Section"
  type="s1:CSection" />
- <s:element minOccurs="0" maxOccurs="1" name="BitCats" type="s1:CBitCats" />
- <s:element minOccurs="0" maxOccurs="1" name="PoiFeatures"
  type="s1:CPoiFeatures" />
- <s:element minOccurs="0" maxOccurs="1" name="ImgPoi" type="s1:CImage" />
- </s:sequence>
- </s:complexType>
- <s:complexType name="CAddress">
- <s:sequence>
```

```

<s:element minOccurs="0" maxOccurs="1" name="FName" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="SName" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="Add1" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="Add2" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="Add3" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="Str" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="HNo" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="Zip" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="Twn" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="Twn2" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="Ct" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="Prefix" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="Phone" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="Prefix2" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="Phone2" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="PreFax" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="Fax" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="PreMobile" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="Mobile" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="PreMobile2" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="Mobile2" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="Email" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="Email2" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="Www" type="s:anyURI" />
<s:element minOccurs="0" maxOccurs="1" name="OpnHrs" type="s:string" />
<s:element minOccurs="0" maxOccurs="unbounded" name="Lnk" type="s1:CLink" />
</s:sequence>
<s:attribute name="ID" type="s:string" />
<s:attribute name="PartnerID" type="s:string" />
<s:attribute name="CustID" type="s:string" />
<s:attribute name="IType" type="s:integer" />
<s:attribute name="X" type="s:string" />
<s:attribute name="Y" type="s:string" />
<s:attribute name="Pin" type="s:string" />
<s:attribute name="PW" type="s:string" />
</s:complexType>
<s:complexType name="CLink">
<s:sequence>
<s:element minOccurs="0" maxOccurs="1" name="Img" type="s1:CImage" />
</s:sequence>
<s:attribute name="Role" type="s1:LINK_ROLE" use="required" />
<s:attribute name="Href" type="s:string" />
<s:attribute name="ServiceRef" type="s:string" />
<s:attribute name="QueryStr" type="s:string" />
<s:attribute name="Title" type="s:string" />
</s:complexType>
<s:complexType name="CImage">
<s:attribute name="Role" type="s1:IMAGE_ROLE" use="required" />
<s:attribute name="Src" type="s:anyURI" />
<s:attribute name="Height" type="s:unsignedInt" use="required" />
<s:attribute name="Width" type="s:unsignedInt" use="required" />
<s:attribute name="ID" type="s:string" />
<s:attribute name="Title" type="s:string" />
<s:attribute name="Alt" type="s:string" />

```

```

<s:element minOccurs="0" maxOccurs="1" name="Chapter" type="s1:CChapter" />
<s:element minOccurs="0" maxOccurs="1" name="Contacts" type="s1:CContact" />
<s:element minOccurs="0" maxOccurs="1" name="Custom" type="s1:CCustom" />
</s:sequence>
<s:attribute name="Role" type="s1:SECTION_ROLE" use="required" />
</s:complexType>
<s:complexType name="CDictionary">
<s:sequence>
<s:element minOccurs="0" maxOccurs="1" name="Headline" type="s:string" />
<s:element minOccurs="0" maxOccurs="unbounded" name="Item" type="s1:CDictionaryItem" />
</s:sequence>
</s:complexType>
<s:complexType name="CDictionaryItem">
<s:sequence>
<s:element minOccurs="0" maxOccurs="1" name="Term" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="Desc" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="Img" type="s1:CImage" />
</s:sequence>
</s:complexType>
<s:complexType name="CChapter">
<s:sequence>
<s:element minOccurs="0" maxOccurs="1" name="Headline" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="Abstract" type="s:string" />
<s:element minOccurs="0" maxOccurs="unbounded" name="Paragraph" type="s1:CParagraph" />
</s:sequence>
</s:complexType>
<s:complexType name="CParagraph">
<s:sequence>
<s:element minOccurs="0" maxOccurs="1" name="Headline" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="SubTitle" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="Txt" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="Img" type="s1:CImage" />
</s:sequence>
</s:complexType>
<s:complexType name="CContact">
<s:sequence>
<s:element minOccurs="0" maxOccurs="unbounded" name="Person" type="s1:CPerson" />
</s:sequence>
</s:complexType>
<s:complexType name="CPerson">
<s:sequence>
<s:element minOccurs="0" maxOccurs="1" name="Role" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="Img" type="s1:CImage" />
<s:element minOccurs="0" maxOccurs="1" name="Adr" type="s1:CAddress" />
</s:sequence>
</s:complexType>
<s:complexType name="CCustom">
<s:sequence>
<s:element minOccurs="0" maxOccurs="unbounded" name="Item" type="s1:CCustomItem" />
</s:sequence>

```

```

<s:attribute name="Base64" type="s:string" />
</s:complexType>
<s:simpleType name="IMAGE_ROLE">
<s:restriction base="s:string">
<s:enumeration value="NONE" />
<s:enumeration value="ANY" />
<s:enumeration value="RESULT_LIST_COMPANY" />
<s:enumeration value="CONTACT" />
<s:enumeration value="COMPANY_BUILDING" />
<s:enumeration value="LOGO" />
</s:restriction>
</s:simpleType>
<s:simpleType name="LINK_ROLE">
<s:restriction base="s:string">
<s:enumeration value="INFO" />
<s:enumeration value="MAP" />
<s:enumeration value="NONE" />
<s:enumeration value="ROUTE" />
<s:enumeration value="EVENT" />
<s:enumeration value="COUPON" />
</s:restriction>
</s:simpleType>
<s:complexType name="CInfoText">
<s:sequence>
<s:element minOccurs="0" maxOccurs="1" name="TxtAd" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="TxtStat" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="TxtDyn" type="s:string" />
</s:sequence>
</s:complexType>
<s:complexType name="CEvent">
<s:sequence>
<s:element minOccurs="0" maxOccurs="1" name="Loc" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="AddLoc1" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="AddLoc2" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="Headline" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="ShortTxt" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="Eventstart" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="Eventend" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="BNames" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="PoiFeatures" type="s1:CPoiFeatures" />
<s:element minOccurs="0" maxOccurs="unbounded" name="Lnk" type="s1:CLink" />
</s:sequence>
<s:attribute name="ID" type="s:string" />
<s:attribute name="LocID" type="s:string" />
</s:complexType>
<s:complexType name="CPoiFeatures">
<s:sequence>
<s:element minOccurs="0" maxOccurs="1" name="FeatureIds" type="s:string" />
</s:sequence>
</s:complexType>
<s:complexType name="CSection">
<s:sequence>
<s:element minOccurs="0" maxOccurs="1" name="Dict" type="s1:CDictionary" />

```

```

</s:complexType>
<s:complexType name="CCustomItem">
<s:sequence>
<s:element minOccurs="0" maxOccurs="1" name="Display" type="s1:CParagraph" />
<s:element minOccurs="0" maxOccurs="1" name="Product" type="s1:CProduct" />
</s:sequence>
</s:complexType>
<s:complexType name="CProduct">
<s:sequence>
<s:element minOccurs="0" maxOccurs="1" name="ID" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="Firm" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="Catchwords" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="Category" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="Price" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="ValidUntil" type="s:string" />
<s:element minOccurs="0" maxOccurs="1" name="Checksum" type="s:string" />
<s:element minOccurs="0" maxOccurs="unbounded" name="Lnk" type="s1:CLink" />
</s:sequence>
</s:complexType>
<s:simpleType name="SECTION_ROLE">
<s:restriction base="s:string">
<s:enumeration value="HOME" />
<s:enumeration value="NEWS" />
<s:enumeration value="CHAPTER" />
<s:enumeration value="CONTACT" />
<s:enumeration value="CUSTOM" />
<s:enumeration value="COUPON" />
</s:restriction>
</s:simpleType>
<s:complexType name="CBitCats">
<s:sequence>
<s:element minOccurs="0" maxOccurs="1" name="BitCatIds" type="s:string" />
</s:sequence>
</s:complexType>
<s:complexType name="CMapInfo">
<s:sequence>
<s:element minOccurs="0" maxOccurs="1" name="Img" type="s1:CImage" />
<s:element minOccurs="0" maxOccurs="1" name="ListNav" type="s1:CListNavigation" />
<s:element minOccurs="0" maxOccurs="1" name="ImgMap" type="s1:CImageMap" />
<s:element minOccurs="0" maxOccurs="1" name="Area" type="s1:CImageMapArea" />
</s:sequence>
<s:attribute name="Lux" type="s:string" />
<s:attribute name="Luy" type="s:string" />
<s:attribute name="Rlx" type="s:string" />
<s:attribute name="Rly" type="s:string" />
<s:attribute name="Scale" type="s:string" />
</s:complexType>
<s:complexType name="CImageMap">
<s:sequence>
<s:element minOccurs="0" maxOccurs="unbounded" name="Area" type="s1:CImageMapArea" />
</s:sequence>
</s:complexType>

```

```

- <s:complexType name="CImageMapArea">
- <s:simpleContent>
- <s:extension base="s:string">
- <s:attribute name="CustID" type="s:string" />
- </s:extension>
- </s:simpleContent>
- </s:complexType>
- <s:complexType name="CRouteInfo">
- <s:sequence>
- <s:element minOccurs="0" maxOccurs="unbounded" name="Rows"
  type="s1:CRouteRow" />
- <s:element minOccurs="0" maxOccurs="unbounded" name="GeocoderList"
  type="s1:CParasList" />
- <s:element minOccurs="0" maxOccurs="1" name="Poly" type="s:string" />
- <s:element minOccurs="0" maxOccurs="1" name="PolyAsGeoFormatOut"
  type="s:string" />
- <s:element minOccurs="0" maxOccurs="1" name="Copyright" type="s:string" />
- <s:element minOccurs="0" maxOccurs="1" name="Img" type="s1:CImage" />
- <s:element minOccurs="0" maxOccurs="1" name="Map" type="s1:CMapInfo" />
- <s:element minOccurs="0" maxOccurs="1" name="ParaList" type="s1:CParasList" />
- </s:sequence>
- <s:attribute name="Dist" type="s:string" />
- <s:attribute name="RouteId" type="s:string" />
- <s:attribute name="Time" type="s:string" />
- <s:attribute name="RowCount" type="s:unsignedLong" use="required" />
- </s:complexType>
- <s:complexType name="CRouteRow">
- <s:attribute name="Id" type="s:unsignedLong" use="required" />
- <s:attribute name="Prio" type="s:string" />
- <s:attribute name="Time" type="s:string" />
- <s:attribute name="Dist" type="s:string" />
- <s:attribute name="Name" type="s:string" />
- <s:attribute name="Dir" type="s:string" />
- <s:attribute name="Str" type="s:string" />
- <s:attribute name="Km" type="s:string" />
- <s:attribute name="Compass" type="s:string" />
- <s:attribute name="Xcoord" type="s:string" />
- <s:attribute name="Ycoord" type="s:string" />
- <s:attribute name="Desc" type="s:string" />
- </s:complexType>
- <s:complexType name="CResultAddressDetail">
- <s:sequence>
- <s:element minOccurs="0" maxOccurs="1" name="Adr" type="s1:CAddress" />
- <s:element minOccurs="0" maxOccurs="1" name="Cwds" type="s:string" />
- <s:element minOccurs="0" maxOccurs="1" name="BNames" type="s:string" />
- <s:element minOccurs="0" maxOccurs="1" name="InfoTxt" type="s1:CInfoText" />
- <s:element minOccurs="0" maxOccurs="1" name="Event" type="s1:CEvent" />
- <s:element minOccurs="0" maxOccurs="1" name="Map" type="s1:CMapInfo" />
- <s:element minOccurs="0" maxOccurs="1" name="Route" type="s1:CRouteInfo" />
- <s:element minOccurs="0" maxOccurs="1" name="Section"
  type="s1:CSection" />
- <s:element minOccurs="0" maxOccurs="1" name="BitCats" type="s1:CBitCats" />
- <s:element minOccurs="0" maxOccurs="1" name="PoiFeatures"
  type="s1:CPOiFeatures" />

```

```

</wsdl:operation>
</wsdl:portType>
- <wsdl:portType name="CGisXmlServiceV20HttpPost">
- <wsdl:operation name="GisService">
- <wsdl:input message="tns:GisServiceHttpPostIn" />
- <wsdl:output message="tns:GisServiceHttpPostOut" />
- </wsdl:operation>
- </wsdl:portType>
- <wsdl:binding name="CGisXmlServiceV20Soap" type="tns:CGisXmlServiceV20Soap">
- <soap:binding transport="http://schemas.xmlsoap.org/soap/http" />
- <wsdl:operation name="GisService">
- <soap:operation soapAction="http://www.yellowmap.de/Partners/XML/GisService"
  style="document" />
- <wsdl:input>
- <soap:body use="literal" />
- </wsdl:input>
- <wsdl:output>
- <soap:body use="literal" />
- </wsdl:output>
- </wsdl:operation>
- </wsdl:binding>
- <wsdl:binding name="CGisXmlServiceV20Soap12"
  type="tns:CGisXmlServiceV20Soap">
- <soap12:binding transport="http://schemas.xmlsoap.org/soap/http" />
- <wsdl:operation name="GisService">
- <soap12:operation
  soapAction="http://www.yellowmap.de/Partners/XML/GisService"
  style="document" />
- <wsdl:input>
- <soap12:body use="literal" />
- </wsdl:input>
- <wsdl:output>
- <soap12:body use="literal" />
- </wsdl:output>
- </wsdl:operation>
- </wsdl:binding>
- <wsdl:binding name="CGisXmlServiceV20HttpGet"
  type="tns:CGisXmlServiceV20HttpGet">
- <http:binding verb="GET" />
- <wsdl:operation name="GisService">
- <http:operation location="/GisService" />
- <wsdl:input>
- <http:urlEncoded />
- </wsdl:input>
- <wsdl:output>
- <mime:mimeXml part="Body" />
- </wsdl:output>
- </wsdl:operation>
- </wsdl:binding>
- <wsdl:binding name="CGisXmlServiceV20HttpPost"
  type="tns:CGisXmlServiceV20HttpPost">
- <http:binding verb="POST" />
- <wsdl:operation name="GisService">
- <http:operation location="/GisService" />
- <wsdl:input>

```

```

<s:element minOccurs="0" maxOccurs="1" name="Imgs" type="s1:CCompanyImages"
/>
</s:sequence>
</s:complexType>
- <s:complexType name="CCompanyImages">
- <s:sequence>
- <s:element minOccurs="0" maxOccurs="unbounded" name="Img" type="s1:CImage"
/>
</s:sequence>
</s:complexType>
- <s:simpleType name="RESULT_TYPE">
- <s:restriction base="s:string">
- <s:enumeration value="BRANCH_LIST" />
- <s:enumeration value="GEOCODER_LIST" />
- <s:enumeration value="POI_LIST" />
- <s:enumeration value="POI_LIST_MAP" />
- <s:enumeration value="POI_DETAIL" />
- <s:enumeration value="POI_DETAIL_MAP" />
- <s:enumeration value="MAP" />
- <s:enumeration value="ROUTE" />
- <s:enumeration value="NONE" />
</s:restriction>
</s:simpleType>
<s:element name="YMResult" type="s1:CXmlDataPoiV20" />
</s:schema>
</wsdl:types>
- <wsdl:message name="GisServiceSoapIn">
- <wsdl:part name="parameters" element="tns:GisService" />
</wsdl:message>
- <wsdl:message name="GisServiceSoapOut">
- <wsdl:part name="parameters" element="tns:GisServiceResponse" />
</wsdl:message>
- <wsdl:message name="GisServiceHttpGetIn">
- <wsdl:part name="Query" type="s:string" />
</wsdl:message>
- <wsdl:message name="GisServiceHttpGetOut">
- <wsdl:part name="Body" element="s1:YMResult" />
</wsdl:message>
- <wsdl:message name="GisServiceHttpPostIn">
- <wsdl:part name="Query" type="s:string" />
</wsdl:message>
- <wsdl:message name="GisServiceHttpPostOut">
- <wsdl:part name="Body" element="s1:YMResult" />
</wsdl:message>
- <wsdl:portType name="CGisXmlServiceV20Soap">
- <wsdl:operation name="GisService">
- <wsdl:input message="tns:GisServiceSoapIn" />
- <wsdl:output message="tns:GisServiceSoapOut" />
</wsdl:operation>
</wsdl:portType>
- <wsdl:portType name="CGisXmlServiceV20HttpGet">
- <wsdl:operation name="GisService">
- <wsdl:input message="tns:GisServiceHttpGetIn" />
- <wsdl:output message="tns:GisServiceHttpGetOut" />

```

```

<mime:content type="application/x-www-form-urlencoded" />
</wsdl:input>
- <wsdl:output>
- <mime:mimeXml part="Body" />
</wsdl:output>
</wsdl:operation>
</wsdl:binding>
- <wsdl:service name="CGisXmlServiceV20">
- <wsdl:port name="CGisXmlServiceV20Soap" binding="tns:CGisXmlServiceV20Soap">
- <soap:address
  location="http://www.yellowmap.de/partners/XML/GisXmlServiceV20.asmx" />
</wsdl:port>
- <wsdl:port name="CGisXmlServiceV20Soap12"
  binding="tns:CGisXmlServiceV20Soap12">
- <soap12:address
  location="http://www.yellowmap.de/partners/XML/GisXmlServiceV20.asmx" />
</wsdl:port>
- <wsdl:port name="CGisXmlServiceV20HttpGet"
  binding="tns:CGisXmlServiceV20HttpGet">
- <http:address
  location="http://www.yellowmap.de/partners/XML/GisXmlServiceV20.asmx" />
</wsdl:port>
- <wsdl:port name="CGisXmlServiceV20HttpPost"
  binding="tns:CGisXmlServiceV20HttpPost">
- <http:address
  location="http://www.yellowmap.de/partners/XML/GisXmlServiceV20.asmx" />
</wsdl:port>
</wsdl:service>
</wsdl:definitions>

```

A1-2 Webservice Aufruf:

package de.fourcare.infinity.ac_dhl.pipenet;

```

import com.intershop.beehive.core.capi.pipeline.Pipeline;
import com.intershop.beehive.core.capi.pipeline.PipelineDictionary;
import com.intershop.beehive.core.capi.pipeline.PipelineExecutionException;
import java.rmi.RemoteException;
import de.yellowmap.www.Partners.XML.CPoiXmlServiceSoap;
import javax.xml.rpc.ServiceException;
import de.yellowmap.www.Partners.XML.CPoiXmlServiceLocator;
import de.yellowmap.www.CXmlDataPoiV20;

```

```

/**
 */
public class Poi extends Pipelet
{
    /**
     * Constant used to access the pipeline dictionary with key 'query'
     */
    /**
     * public static final String DN_QUERY = "query";

```

```

/**
 * The pipelet's execute method is called whenever the pipelets gets
 * executed in the context of a pipeline and a request. The pipeline
 * dictionary valid for the currently executing thread is provided as
 * a parameter.
 *
 * @param dict The pipeline dictionary to be used.
 * @throws PipeletExecutionException
 *         Thrown in case of severe errors that make the pipelet execute
 *         impossible (e.g. missing required input data).
 */
public int execute(PipelineDictionary dict)
throws PipeletExecutionException {
    // lookup 'query' in pipeline dictionary

    String query = "";
    String HouseNo = (String) dict.get(DN_HAUSNO);
    String Street = (String) dict.get(DN_STREET);
    String Town = (String) dict.get(DN_TWN);
    String Town2 = (String) dict.get(DN_TWN2);
    String Country = (String) dict.get(DN_COUNTRY);
    String Zip = (String) dict.get(DN_ZIP);
    if (HouseNo != null) query += "&HouseNo=" + HouseNo;
    if (Street != null) query += "&Street=" + Street;
    if (Town != null) query += "&Town=" + Town;
    if (Town2 != null) query += "&Town2=" + Town2;
    if (Country != null) query += "&Country=" + Country;
    if (Zip != null) query += "&Zip=" + Zip;

    try {
        CPoiXmlServiceSoap service = (new CPoiXmlServiceLocator())
            .getCPoiXmlServiceSoap();
        CXmlDataPoiV20 serviceResult = service.poi(query);

        // store 'Result' in pipeline dictionary
        dict.put("Result", serviceResult);
    } catch (ServiceException e) {
        throw new PipeletExecutionException(
            "Could not bind to service
            de.yellowmap.www.Partners.XML.CPoiXmlServiceSoap.",
            e);
    } catch (RemoteException e) {
        throw new PipeletExecutionException(
            "An exception occurred invoking service poi().", e);
    }
    return PIPELET_NEXT;
}

```

```

<xs:element name="Add2" type="simpleType.String.512"
minOccurs="0">
    <xs:element>
        <xs:element name="Str" type="simpleType.String.512" minOccurs="0">
        </xs:element>
        <xs:element name="Zip" type="simpleType.String.512" minOccurs="0">
        </xs:element>
        <xs:element name="Twn" type="simpleType.String.512" minOccurs="0">
        </xs:element>
        <xs:element name="Twn2"
type="simpleType.String.512" minOccurs="0">
        </xs:element>
        <xs:element name="Ct" type="simpleType.String.512"
minOccurs="0">
        </xs:element>
        <xs:choice>
            <xs:element name="Lnk" type="complexType.Lnk"
minOccurs="0" maxOccurs="unbounded"></xs:element>
        </xs:choice>
        </xs:sequence>
        <xs:attribute name="ID" type="simpleType.String.30" >
        </xs:attribute>
        <xs:attribute name="PartnerID" type="simpleType.String.30" >
        </xs:attribute>
        <xs:attribute name="CustID" type="simpleType.String.30" >
        </xs:attribute>
        <xs:attribute name="IType" type="simpleType.String.512" >
        </xs:attribute>
    </xs:complexType>
<xs:complexType name="complexType.Lnk">
    <xs:attribute name="Role" type="simpleType.String.512" >
    </xs:attribute>
    <xs:attribute name="ServiceRef" type="simpleType.String.512" >
    </xs:attribute>
    <xs:attribute name="QueryStr" type="simpleType.String.512" >
    </xs:attribute>
</xs:complexType>
<xs:simpleType name="simpleType.String.30">
    <xs:annotation>
        <xs:documentation xml:lang="de">
            String mit maximal 30 Zeichen.
        </xs:documentation>
    </xs:annotation>
    <xs:restriction base="xs:string">
        <xs:minLength value="0"/>
        <xs:maxLength value="30"/>
    </xs:restriction>
</xs:simpleType>
<xs:simpleType name="simpleType.String.60">
    <xs:annotation>

```

A. 2- Beispielanwendung REST Webservice:

A2-1 XSD-Shema:

```

<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
elementFormDefault="qualified" attributeFormDefault="unqualified">

    <xs:include schemaLocation="poi.xsd"/>
    <xs:element name="PoiList" type="poiListInterface">
        <xs:annotation>
            <xs:documentation xml:lang="de">
                Root-Element für das YMResult-Interface.
            </xs:documentation>
        </xs:annotation>
    </xs:element>
    <xs:complexType name="poiListInterface" mixed="false">
        <xs:choice>
            <xs:element name="Poi" type="complexType.Poi" minOccurs="0"
maxOccurs="unbounded" />
        </xs:choice>
    </xs:complexType>
</xs:schema>

<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
elementFormDefault="qualified" attributeFormDefault="unqualified"
xmlns:xml="http://www.w3.org/XML/1998/namespace"
xmlns:jxb="http://java.sun.com/xml/ns/jaxb" jxb:version="1.0">
    <xs:import namespace="http://www.w3.org/XML/1998/namespace"
        schemaLocation="xml.xsd" />
    <xs:complexType name="complexType.Poi">
        <xs:sequence>
            <xs:element name="Adr"
                type="complexType.Adr">
            </xs:element>
            <xs:element name="Dist" type="simpleType.String.30">
            </xs:element>
            <xs:element name="BNames" type="simpleType.String.512">
            </xs:element>
        </xs:sequence>
    </xs:complexType>
    <xs:complexType name="complexType.Adr">
        <xs:sequence>
            <xs:element name="SName" type="simpleType.String.512" minOccurs="0">
            </xs:element>
            <xs:element name="Add1" type="simpleType.String.512"
minOccurs="0">
            </xs:element>

```

```

        <xs:documentation xml:lang="de">
            String mit maximal 60 Zeichen.
        </xs:documentation>
    </xs:annotation>
    <xs:restriction base="xs:string">
        <xs:minLength value="0"/>
        <xs:maxLength value="60"/>
    </xs:restriction>
</xs:simpleType>
<xs:simpleType name="simpleType.String.512">
    <xs:annotation>
        <xs:documentation xml:lang="de">
            String mit maximal 512 Zeichen.
        </xs:documentation>
    </xs:annotation>
    <xs:restriction base="xs:string">
        <xs:minLength value="0"/>
        <xs:maxLength value="512"/>
    </xs:restriction>
</xs:simpleType>
</xs:schema>

```

A2-2 Webservice Aufruf:

package de.fourcare.infinity.ac.dhl.pipelet;

```

import java.io.BufferedReader;
import java.io.ByteArrayInputStream;
import java.io.IOException;
import java.io.InputStream;
import java.io.InputStreamReader;
import java.io.UnsupportedEncodingException;
import java.security.MessageDigest;
import java.security.NoSuchAlgorithmException;
import java.text.DateFormat;
import java.text.SimpleDateFormat;
import java.util.ArrayList;
import java.util.Date;
import java.util.List;

```

```

import javax.xml.bind.JAXBContext;
import javax.xml.bind.JAXBException;
import javax.xml.bind.Unmarshaller;
import javax.xml.bind.Validator;

```

```

import org.apache.commons.httpclient.HttpClient;

```

```
import org.apache.commons.httpclient.HttpException;
import org.apache.commons.httpclient.NameValuePair;
import org.apache.commons.httpclient.methods.PostMethod;
```

```
import com.intershop.beehive.core.capi.pipeline.Pipelet;
import com.intershop.beehive.core.capi.pipeline.PipeletExecutionException;
import com.intershop.beehive.core.capi.pipeline.PipelineDictionary;
import com.intershop.beehive.xcs.capi.product.Product;
```

```
import de.fourcare.enfinity.ac_dhl.binding.ComplexTypePoi;
import de.fourcare.enfinity.ac_dhl.binding.ObjectFactory;
import de.fourcare.enfinity.ac_dhl.binding.PoiList;
import de.fourcare.enfinity.ac_dhl.capi.LensValidationEventHandler;
```

```
/**
 */
public class FindPackstationAddress extends Pipelet {

    /**
     * The pipelet's execute method is called whenever the pipelets gets
     * executed in the context of a pipeline and a request. The pipeline
     * dictionary valid for the currently executing thread is provided as a
     * parameter.
     *
     * @param dict
     *      The pipeline dictionary to be used.
     * @throws PipeletExecutionException
     *      Thrown in case of severe errors that make the pipelet execute
     *      impossible (e.g. missing required input data).
     */

    public static final String DN_ADDR_RECV_STREET = "RecvStreet";

    public static final String DN_ADDR_RECV_ZIP = "RecvZip";

    public static final String DN_ADDR_RECV_CITY = "RecvCity";

    public static final String DN_ADDR_RECV_COUNTRY = "RecvCountry";

    public int execute(PipelineDictionary dict) {

        final String FORM_URL_ENCODED_CONTENT_TYPE = "application/x-www-form-urlencoded";
        DateFormat df = new SimpleDateFormat("ddMMyyyyy-hhMMss");
        Date date = new Date();
        String PACKSTATION_URL = "https://www.dhl.de/maptos/ps_suche";
        int URL_TIMEOUT = 45000;
        String PARTNER_ID = "DHLDS";
        String SHIPMENT_ID = "1234";
        String ADDR_RECV_STREET = (String) dict.get(DN_ADDR_RECV_STREET);
```

```
        httpClient.getParams().setParameter("http.socket.timeout",
            new Integer(URL_TIMEOUT));
        is = method.getResponseBodyAsStream();
        BufferedReader in = new BufferedReader(new InputStreamReader(is));

        StringBuffer sb = new StringBuffer();
        sb
            .append("<?xml version='1.0' encoding='utf-8' standalone='no'?">"
                + "\n");

        String s = "";
        String inputLine;
        while ((inputLine = in.readLine()) != null) {
            if (inputLine.indexOf("<PoiList") > 0) {
                sb
                    .append("<PoiList xmlns:xsi='http://www.w3.org/2001/XMLSchema-instance' xmlns:xsd='http://www.w3.org/2001/XMLSchema' Version='2.0' "
                        ResultType='POI_LIST' >"
                        + "\n");
                while ((inputLine = in.readLine()) != null) {
                    sb.append(inputLine + "\n");
                    if (inputLine.indexOf("</PoiList") > 0) {
                        break;
                    }
                }
            }
        }
        // System.out.println("sb----->" + sb);
        dict.put("export", sb);
        InputStream is2 = new ByteArrayInputStream(sb.toString().getBytes(
            "UTF-8"));
        // InputStream is2=new StringInputStream(sb.toString());
        if (is != null) {
            PoiList poiList = unmarshall(is2);
            if (poiList != null) {

                ComplexTypePoi[] pois = poiList.getPoi();
                for (int i = 0; i < pois.length; i++) {

                    ComplexTypePoi poi = pois[i];
                    String sName = poi.getAdr().getSName();
                    if (sName.startsWith("Packstation")) {
                        poi.getAdr().setSName(
                            sName.substring(sName.indexOf("\n") + 2));
                    }
                }
            }
            dict.put("poiList", poiList);
        }
    }
}
```

```
String ADDR_RECV_ZIP = (String) dict.get(DN_ADDR_RECV_ZIP);
if (ADDR_RECV_ZIP == "" || ADDR_RECV_ZIP == null)
    ADDR_RECV_ZIP = "24118";
String ADDR_RECV_CITY = (String) dict.get(DN_ADDR_RECV_CITY);
String ADDR_RECV_COUNTRY = (String) dict.get(DN_ADDR_RECV_COUNTRY);
String SUB_PARTNER_ID = "LENSC";
String REQUEST_TIMESTAMP = "1"; // df.format(date) //
// "timestamp";
String PARTNER_USER_ID = "";
// final String CHARACTER_ENCODING = "ISO8859_1";
String PARAMETERSET_VERSION_NO = "1.2";
String KEY_PHASE = "1";
String USER_EMAIL = "";
String SCHLUESSEL_DPWN_DPNET = "";
PostMethod method = null;
InputStream is = null;
try {
    HttpClient httpClient = new HttpClient();
    String signatur = PARTNER_ID + ":@" + SHIPMENT_ID + ":@"
        + REQUEST_TIMESTAMP + ":@" + KEY_PHASE + ":@"
        + PARTNER_USER_ID + ":@" + USER_EMAIL + ":@"
        + SCHLUESSEL_DPWN_DPNET;
    method = new PostMethod(PACKSTATION_URL);
    method.setRequestHeader("Content-Type",
        FORM_URL_ENCODED_CONTENT_TYPE);
    List<NameValuePair> params = new ArrayList<NameValuePair>();
    //
    params.add(new NameValuePair("PARTNER_ID", PARTNER_ID));
    params.add(new NameValuePair("PARTNER_SIGNATURE",
        "9285d099b16cf678"));
    // params.add(new NameValuePair("PARTNER_SIGNATURE",
    // MD5(signatur)));
    params.add(new NameValuePair("SUB_PARTNER_ID", SUB_PARTNER_ID));
    params
        .add(new NameValuePair("REQUEST_TIMESTAMP",
            REQUEST_TIMESTAMP));
    params.add(new NameValuePair("KEY_PHASE", KEY_PHASE));
    params.add(new NameValuePair("ADDR_RECV_STREET",
        ADDR_RECV_STREET));
    params.add(new NameValuePair("ADDR_RECV_ZIP", ADDR_RECV_ZIP));
    params.add(new NameValuePair("ADDR_RECV_CITY", ADDR_RECV_CITY));
    params
        .add(new NameValuePair("ADDR_RECV_COUNTRY",
            ADDR_RECV_COUNTRY));
    // params.add(new
    // NameValuePair("CHARACTER_ENCODING", CHARACTER_ENCODING));
    params.add(new NameValuePair("PARAMETERSET_VERSION_NO",
        PARAMETERSET_VERSION_NO));
    params.add(new NameValuePair("SHIPMENT_ID", SHIPMENT_ID));
    method.setRequestBody(params.toArray(new NameValuePair[0]));
    httpClient.executeMethod(method);
```

```
    } catch (HttpException e) {
        e.printStackTrace();
    } catch (IOException e) {
        e.printStackTrace();
    } catch (Exception e) {
        e.printStackTrace();
    } finally {
        method.releaseConnection();
    }
}
```

```
    return PIPELET_NEXT;
}
```

```
private static String convertToHex(byte[] data) {
    StringBuffer buf = new StringBuffer();
    for (int i = 0; i < data.length; i++) {
        int halfbyte = (data[i] >>> 4) & 0x0F;
        int two_halfs = 0;
        do {
            if ((0 <= halfbyte) && (halfbyte <= 9))
                buf.append((char) ('0' + halfbyte));
            else
                buf.append((char) ('a' + (halfbyte - 10)));
            halfbyte = data[i] & 0x0F;
        } while (two_halfs++ < 1);
    }
    return (buf.toString()).substring(0, 16);
}
```

```
public static String MD5(String text) throws NoSuchAlgorithmException,
    UnsupportedEncodingException {
    MessageDigest md;
    md = MessageDigest.getInstance("MD5");
    byte[] md5hash = new byte[32];
    md.update(text.getBytes("iso-8859-1"), 0, text.length());
    md5hash = md.digest();
    return convertToHex(md5hash);
}
```

```
public PoiList unmarshall(InputStream is) throws JAXBException {
    ObjectFactory objFactory = new ObjectFactory();
    JAXBContext jc = JAXBContext.newInstance(objFactory.getClass()
        .getPackage().getName());
```

```
    Unmarshaller unmarshaller = jc.createUnmarshaller();
```

```
    unmarshaller.setValidating(new Boolean("False"));
    PoiList poiList = (PoiList) unmarshaller.unmarshal(is);
```

```
    // ArrayList al=new ArrayList();
    // for (int i=0; i < poiList.length; i++)
```

```
// {  
// a1.add(poiList[i]);  
// }  
  
return poiList;  
  
}  
  
}
```