



Situation Analysis

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1. INTRODUCTION

Situation Analysis profile describes how a user or an organization is provided with a possibility to simulate the situation on the ground for a given set of data. The profile describes how to get the data, maps, mash-ups and simulation results.

2. OBJECTIVES

The objectives of implementing this profile are:

1. Getting an overview of the possible situations based on the current situation (data) in the emergency area.
2. Identifying the potentially critical emergency areas.
3. Identifying the potentially critical events.
4. Communicating the findings to other parties.

3. SCOPE

This profile supports a process of providing users with a common operational picture with maps and/or data. The intended scope for this profile includes:

- Pre-emergency, during and after emergency situations
- Among on-site coordination centers, local organizations, national organizations and non-governmental organizations

The activities specified in this profile are intended to provide a common ground for a decision support between organizations taking part in emergency operations. It is expected that the parties have necessary infrastructure/devices, to enable them to acquire maps and data, to view them and to run simulations on them. The access is determined by the SLA agreements.

4. PROFILE DETAILED DESCRIPTION

4.2. Roles Involved

Actor	Description
Analysis Consumer	The Analysis Consumer is the legal person or organization who requests simulations based on available maps and data. The additional role is to interpret the findings, and to inform partners of the findings.
Analysis Supplier	The Analysis Supplier supplies the simulation results based on retrieved base maps and data on it.

4.3. Actor Diagram

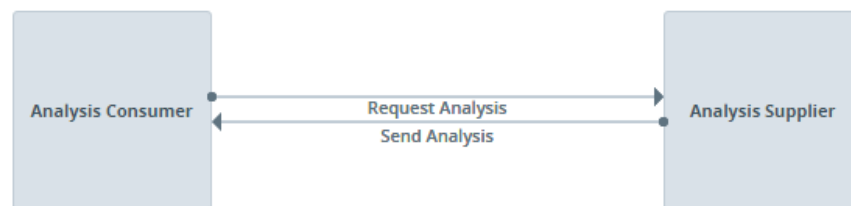


Figure above shows the actors directly involved in the Situation Analysis Profile and the possible messages to be exchanged between them.

4.4. Transaction Information

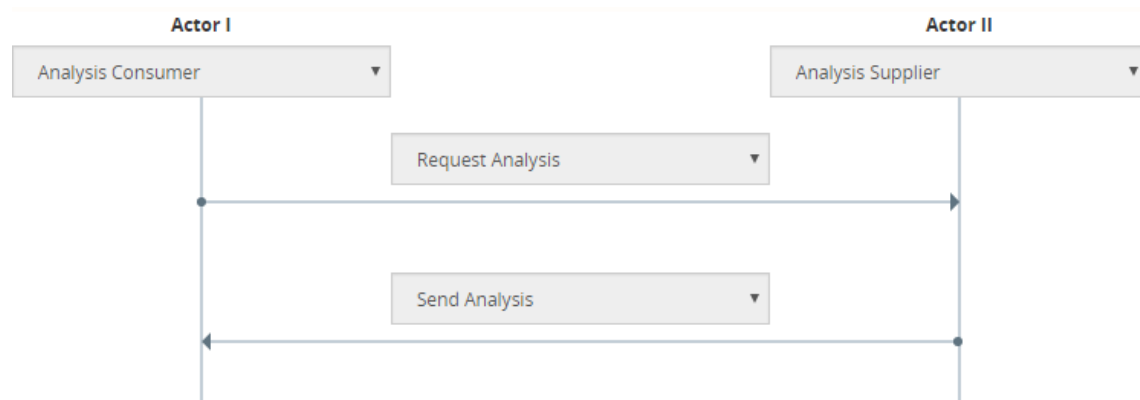
4.4.1. Request Simulation

4.4.1.1. Description

Categories	Description and Values
Identifier	1457358995821
Description	The Analysis Consumer requests a simulation based on the chosen maps and data. The Analysis

	Supplier responds by simulating and providing the simulation results.
Actors	Analysis Consumer, Analysis Supplier
Pre-conditions	<p>The Analysis Consumer and the Analysis Supplier have already identified each other.</p> <p>Maps and data are already requested and ready for simulation.</p>
Post-conditions	The Analysis Consumer has received either simulation results or a description/message of why they are not available.

4.4.1.2. Interaction Diagram



4.4.1.3. Request Analysis Message

4.4.1.3.1. Message Semantics

```

<?xml version="1.0" encoding="UTF-8"?>
<schema xmlns="http://www.w3.org/2001/XMLSchema" xmlns:ows="http://www.opengis.net/ows/1.1"
xmlns:xlink="http://www.w3.org/1999/xlink" xmlns:wps="http://www.opengis.net/wps/1.0.0"
targetNamespace="http://www.opengis.net/wps/1.0.0" elementFormDefault="unqualified" xml:lang="en"
version="1.0.0.3">
  <include schemaLocation="common/RequestBaseType.xsd"/>
  <include schemaLocation="common/ResponseBaseType.xsd"/>
  <include schemaLocation="common/DescriptionType.xsd"/>

```

```

<include schemaLocation="common/ProcessBriefType.xsd"/>
<include schemaLocation="common/WSDL.xsd"/>
<import namespace="http://www.opengis.net/ows/1.1"
schemaLocation="http://schemas.opengis.net/ows/1.1.0/owsAll.xsd"/>
<import namespace="http://www.w3.org/1999/xlink"
schemaLocation="http://www.w3.org/1999/xlink.xsd"/>
<import namespace="http://www.w3.org/XML/1998/namespace"
schemaLocation="http://www.w3.org/2001/xml.xsd"/>
<element name="DescribeProcess">
  <complexType>
    <complexContent>
      <extension base="wps:RequestBaseType">
        <sequence>
          <element ref="ows:Identifier" maxOccurs="unbounded"/>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>
<element name="ProcessDescriptions">
  <complexType>
    <complexContent>
      <extension base="wps:ResponseBaseType">
        <sequence>
          <element name="ProcessDescription" type="wps:ProcessDescriptionType"
maxOccurs="unbounded"/>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>
<complexType name="ProcessDescriptionType">
  <complexContent>
    <extension base="wps:ProcessBriefType">
      <sequence>
        <element name="DataInputs" minOccurs="0">
          <complexType>
            <sequence>
              <element name="Input" type="wps:InputDescriptionType"
maxOccurs="unbounded"/>
            </sequence>
          </complexType>
        </element>
        <element name="ProcessOutputs">
          <complexType>
            <sequence>
              <element name="Output" type="wps:OutputDescriptionType"
maxOccurs="unbounded"/>
            </sequence>
          </complexType>
        </element>
      </sequence>
    </extension>
  </complexContent>
</complexType>
</element>

```

```

        </sequence>
        <attribute name="storeSupported" type="boolean" use="optional" default="false"/>
        <attribute name="statusSupported" type="boolean" use="optional" default="false"/>
    </extension>
</complexContent>
</complexType>
<complexType name="InputDescriptionType">
    <complexContent>
        <extension base="wps:DescriptionType">
            <sequence>
                <group ref="wps:InputFormChoice"/>
            </sequence>
            <attribute name="minOccurs" type="nonNegativeInteger" use="required"/>
            <attribute name="maxOccurs" type="positiveInteger" use="required"/>
        </extension>
    </complexContent>
</complexType>
<group name="InputFormChoice">
    <choice>
        <element name="ComplexData" type="wps:SupportedComplexDataInputType"/>
        <element name="LiteralData" type="wps:LiteralInputType"/>
        <element name="BoundingBoxData" type="wps:SupportedCRSsType"/>
    </choice>
</group>
<complexType name="LiteralInputType">
    <complexContent>
        <extension base="wps:LiteralOutputType">
            <sequence>
                <group ref="wps:LiteralValuesChoice"/>
                <element name="DefaultValue" type="string" minOccurs="0"/>
            </sequence>
        </extension>
    </complexContent>
</complexType>
<group name="LiteralValuesChoice">
    <choice>
        <element ref="ows:AllowedValues"/>
        <element ref="ows:AnyValue"/>
        <element name="ValuesReference" type="wps:ValuesReferenceType"/>
    </choice>
</group>
<complexType name="ValuesReferenceType">
    <attribute ref="ows:reference"/>
    <attribute name="valuesForm" type="anyURI"/>
</complexType>
<complexType name="SupportedComplexDataInputType">
    <complexContent>
        <extension base="wps:SupportedComplexDataType">
            <attribute name="maximumMegabytes" type="integer" use="optional"/>
        </extension>
    </complexContent>

```

```
</complexContent>
</complexType>
<complexType name="SupportedUOMsType">
  <sequence>
    <element name="Default">
      <complexType>
        <sequence>
          <element ref="ows:UOM"/>
        </sequence>
      </complexType>
    </element>
    <element name="Supported" type="wps:UOMsType"/>
  </sequence>
</complexType>
<complexType name="UOMsType">
  <sequence>
    <element ref="ows:UOM" maxOccurs="unbounded"/>
  </sequence>
</complexType>
<complexType name="SupportedCRSsType">
  <sequence>
    <element name="Default">
      <complexType>
        <sequence>
          <element name="CRS" type="anyURI"/>
        </sequence>
      </complexType>
    </element>
    <element name="Supported" type="wps:CRSsType"/>
  </sequence>
</complexType>
<complexType name="CRSsType">
  <sequence>
    <element name="CRS" type="anyURI" maxOccurs="unbounded"/>
  </sequence>
</complexType>
<complexType name="SupportedComplexDataType">
  <sequence>
    <element name="Default" type="wps:ComplexDataCombinationType"/>
    <element name="Supported" type="wps:ComplexDataCombinationsType"/>
  </sequence>
</complexType>
<complexType name="ComplexDataCombinationType">
  <sequence>
    <element name="Format" type="wps:ComplexDataDescriptionType"/>
  </sequence>
</complexType>
<complexType name="ComplexDataCombinationsType">
  <sequence>
```



```

        <element name="Format" type="wps:ComplexDataDescriptionType" maxOccurs="unbounded"/>
    </sequence>
</complexType>
<complexType name="ComplexDataDescriptionType">
    <sequence>
        <element name="MimeType" type="ows:MimeType"/>
        <element name="Encoding" type="anyURI" minOccurs="0"/>
        <element name="Schema" type="anyURI" minOccurs="0"/>
    </sequence>
</complexType>
<complexType name="OutputDescriptionType">
    <complexContent>
        <extension base="wps:DescriptionType">
            <group ref="wps:OutputFormChoice"/>
        </extension>
    </complexContent>
</complexType>
<group name="OutputFormChoice">
    <choice>
        <element name="ComplexOutput" type="wps:SupportedComplexDataType"/>
        <element name="LiteralOutput" type="wps:LiteralOutputType"/>
        <element name="BoundingBoxOutput" type="wps:SupportedCRSsType"/>
    </choice>
</group>
<complexType name="LiteralOutputType">
    <sequence>
        <element ref="ows:DataType" minOccurs="0"/>
        <element name="UOMs" type="wps:SupportedUOMsType" minOccurs="0"/>
    </sequence>
</complexType>
<element name="Execute">
    <complexType>
        <complexContent>
            <extension base="wps:RequestBaseType">
                <sequence>
                    <element ref="ows:Identifier"/>
                    <element name="DataInputs" type="wps:DataInputsType" minOccurs="0"/>
                    <element name="ResponseForm" type="wps:ResponseFormType" minOccurs="0"/>
                </sequence>
            </extension>
        </complexContent>
    </complexType>
</element>
<complexType name="DataInputsType">
    <sequence>
        <element name="Input" type="wps:InputType" maxOccurs="unbounded"/>
    </sequence>
</complexType>
<complexType name="ResponseFormType">
    <choice>

```

```
<element name="ResponseDocument" type="wps:ResponseDocumentType"/>
<element name="RawDataOutput" type="wps:OutputDefinitionType"/>
</choice>
</complexType>
<complexType name="ResponseDocumentType">
  <sequence>
    <element name="Output" type="wps:DocumentOutputDefinitionType" maxOccurs="unbounded"/>
  </sequence>
  <attribute name="storeExecuteResponse" type="boolean" use="optional" default="false"/>
  <attribute name="lineage" type="boolean" use="optional" default="false"/>
  <attribute name="status" type="boolean" default="false"/>
</complexType>
<complexType name="DocumentOutputDefinitionType">
  <complexContent>
    <extension base="wps:OutputDefinitionType">
      <sequence>
        <element ref="ows:Title" minOccurs="0"/>
        <element ref="ows:Abstract" minOccurs="0"/>
      </sequence>
      <attribute name="asReference" type="boolean" use="optional" default="false"/>
    </extension>
  </complexContent>
</complexType>
<complexType name="OutputDefinitionType">
  <sequence>
    <element ref="ows:Identifier"/>
  </sequence>
  <attribute name="uom" type="anyURI" use="optional"/>
  <attributeGroup ref="wps:ComplexDataEncoding"/>
</complexType>
<attributeGroup name="ComplexDataEncoding">
  <attribute name="mimeType" type="ows:MimeType" use="optional"/>
  <attribute name="encoding" type="anyURI" use="optional"/>
  <attribute name="schema" type="anyURI" use="optional"/>
</attributeGroup>
<complexType name="InputType">
  <sequence>
    <element ref="ows:Identifier"/>
    <element ref="ows:Title" minOccurs="0"/>
    <element ref="ows:Abstract" minOccurs="0"/>
    <group ref="wps:InputDataFormChoice"/>
  </sequence>
</complexType>
<group name="InputDataFormChoice">
  <choice>
    <element name="Reference" type="wps:InputReferenceType"/>
    <element name="Data" type="wps:DataType"/>
  </choice>
</group>
<complexType name="DataType">
```

```

    <choice>
      <element name="ComplexData" type="wps:ComplexDataType"/>
      <element name="LiteralData" type="wps:LiteralDataType"/>
      <element name="BoundingBoxData" type="ows:BoundingBoxType"/>
    </choice>
  </complexType>
<complexType name="InputReferenceType">
  <sequence minOccurs="0">
    <element name="Header" minOccurs="0" maxOccurs="unbounded">
      <complexType>
        <attribute name="key" type="string" use="required"/>
        <attribute name="value" type="string" use="required"/>
      </complexType>
    </element>
    <choice minOccurs="0">
      <element name="Body" type="anyType"/>
      <element name="BodyReference">
        <complexType>
          <attribute ref="xlink:href" use="required"/>
        </complexType>
      </element>
    </choice>
  </sequence>
  <attribute ref="xlink:href" use="required"/>
  <attribute name="method" use="optional" default="GET">
    <simpleType>
      <restriction base="string">
        <enumeration value="GET"/>
        <enumeration value="POST"/>
      </restriction>
    </simpleType>
  </attribute>
  <attributeGroup ref="wps:ComplexDataEncoding"/>
</complexType>
<complexType name="ComplexDataType" mixed="true">
  <complexContent mixed="true">
    <extension base="anyType">
      <attributeGroup ref="wps:ComplexDataEncoding"/>
    </extension>
  </complexContent>
</complexType>
<complexType name="LiteralDataType">
  <simpleContent>
    <extension base="string">
      <attribute name="dataType" type="anyURI" use="optional"/>
      <attribute name="uom" type="anyURI" use="optional"/>
    </extension>
  </simpleContent>
</complexType>
<element name="ExecuteResponse">

```

```

<complexType>
  <complexContent>
    <extension base="wps:ResponseBaseType">
      <sequence>
        <element name="Process" type="wps:ProcessBriefType"/>
        <element name="Status" type="wps:StatusType"/>
        <element name="DataInputs" type="wps:DataInputsType" minOccurs="0"/>
        <element name="OutputDefinitions" type="wps:OutputDefinitionsType"
minOccurs="0"/>
        <element name="ProcessOutputs" minOccurs="0">
          <complexType>
            <sequence>
              <element name="Output" type="wps:OutputDataType"
maxOccurs="unbounded"/>
            </sequence>
          </complexType>
        </element>
      </sequence>
      <attribute name="serviceInstance" type="anyURI" use="required"/>
      <attribute name="statusLocation" type="anyURI" use="optional"/>
    </extension>
  </complexContent>
</complexType>
</element>
<complexType name="OutputDefinitionsType">
  <sequence>
    <element name="Output" type="wps:DocumentOutputDefinitionType" maxOccurs="unbounded"/>
  </sequence>
</complexType>
<complexType name="OutputDataType">
  <complexContent>
    <extension base="wps:DescriptionType">
      <group ref="wps:OutputDataFormChoice"/>
    </extension>
  </complexContent>
</complexType>
<group name="OutputDataFormChoice">
  <choice>
    <element name="Reference" type="wps:OutputReferenceType"/>
    <element name="Data" type="wps:DataType"/>
  </choice>
</group>
<complexType name="OutputReferenceType">
  <attribute name="href" type="anyURI" use="required"/>
  <attributeGroup ref="wps:ComplexDataEncoding"/>
</complexType>
<complexType name="StatusType">
  <choice>
    <element name="ProcessAccepted" type="string"/>
    <element name="ProcessStarted" type="wps:ProcessStartedType"/>
  </choice>

```

```

        <element name="ProcessPaused" type="wps:ProcessStartedType"/>
        <element name="ProcessSucceeded" type="string"/>
        <element name="ProcessFailed" type="wps:ProcessFailedType"/>
    </choice>
    <attribute name="creationTime" type="dateTime" use="required"/>
</complexType>
<complexType name="ProcessStartedType">
    <simpleContent>
        <extension base="string">
            <attribute name="percentCompleted" use="optional">
                <simpleType>
                    <restriction base="integer">
                        <minInclusive value="0"/>
                        <maxInclusive value="99"/>
                    </restriction>
                </simpleType>
            </attribute>
        </extension>
    </simpleContent>
</complexType>
<complexType name="ProcessFailedType">
    <sequence>
        <element ref="ows:ExceptionReport"/>
    </sequence>
</complexType>
<element name="GetCapabilities">
    <complexType>
        <sequence>
            <element name="AcceptVersions" type="ows:AcceptVersionsType" minOccurs="0"/>
        </sequence>
        <attribute name="service" type="ows:ServiceType" use="required" fixed="WPS"/>
        <attribute name="language" type="string"/>
    </complexType>
</element>
<element name="Capabilities" type="wps:WPSCapabilitiesType"/>
<complexType name="WPSCapabilitiesType">
    <complexContent>
        <extension base="ows:CapabilitiesBaseType">
            <sequence>
                <element ref="wps:ProcessOfferings"/>
                <element ref="wps:Languages"/>
                <element ref="wps:WSDL" minOccurs="0"/>
            </sequence>
            <attribute name="service" use="required" fixed="WPS"/>
            <attribute ref="xml:lang" use="required"/>
        </extension>
    </complexContent>
</complexType>
<element name="Languages">
    <complexType>

```

```

    <sequence>
      <element name="Default">
        <complexType>
          <sequence>
            <element ref="ows:Language"/>
          </sequence>
        </complexType>
      </element>
      <element name="Supported" type="wps:LanguagesType"/>
    </sequence>
  </complexType>
</element>
<complexType name="LanguagesType">
  <sequence>
    <element ref="ows:Language" maxOccurs="unbounded"/>
  </sequence>
</complexType>
<element name="ProcessOfferings">
  <complexType>
    <sequence>
      <element name="Process" type="wps:ProcessBriefType" maxOccurs="unbounded"/>
    </sequence>
  </complexType>
</element>
</schema>

```

4.4.1.3.2. Protocol Requirements

```

<?xml version="1.0" encoding="UTF-8" ?>
<wsdl:definitions name="SpatialAnalysis"
targetNamespace="http://wpsint.tigris.org/soap/SpatialAnalysis"
xmlns:tns="http://wpsint.tigris.org/soap/SpatialAnalysis"
xmlns:mime="http://schemas.xmlsoap.org/wsdl/mime/"
xmlns:soap12="http://schemas.xmlsoap.org/wsdl/soap12/"
xmlns:http="http://schemas.xmlsoap.org/wsdl/http/"
xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:types>
    <xsd:schema elementFormDefault="qualified"
targetNamespace="http://wpsint.tigris.org/soap/SpatialAnalysis">
      <xsd:element name="GetCapabilities">
        <xsd:complexType>
          <xsd:sequence>
            <xsd:element maxOccurs="1" minOccurs="0" name="updateSequence" type="xsd:string" />
            <xsd:element maxOccurs="1" minOccurs="0" name="acceptFormats" type="xsd:string" />
            <xsd:element maxOccurs="1" minOccurs="0" name="acceptVersions" type="xsd:string" />
          </xsd:sequence>
        </xsd:complexType>
      </xsd:element>
    </xsd:schema>
  </wsdl:types>

```

```

</xsd:element>
<xsd:element name="GetCapabilitiesResponse">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element maxOccurs="1" minOccurs="0" name="GetCapabilitiesResult" />
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
<xsd:element name="DescribeProcess_All">
  <xsd:complexType />
</xsd:element>
<xsd:element name="DescribeProcess_AllResponse">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element maxOccurs="1" minOccurs="0" name="DescribeProcess_AllResult" />
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
<xsd:element name="EvaluateWPS">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element maxOccurs="1" minOccurs="0" name="wpsRequestDocument" />
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
<xsd:element name="EvaluateWPSResponse">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element maxOccurs="1" minOccurs="0" name="EvaluateWPSResult" />
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
<xsd:element name="DescribeProcess_GMLAreaGeometries">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element maxOccurs="1" minOccurs="0" name="updateSequence" type="xsd:string" />
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
<xsd:element name="DescribeProcess_GMLAreaGeometriesResponse">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element maxOccurs="1" minOccurs="0"
name="DescribeProcess_GMLAreaGeometriesResult" />
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
<xsd:element name="ExecuteProcess_GMLAreaGeometries">
  <xsd:complexType>
    <xsd:sequence>

```

```

        <xsd:element maxOccurs="1" minOccurs="0" name="GmlUrlResource" type="xsd:string" />
    </xsd:sequence>
</xsd:complexType>
</xsd:element>
<xsd:element name="ExecuteProcess_GMLAreaGeometriesResponse">
    <xsd:complexType>
        <xsd:sequence>
            <xsd:element maxOccurs="1" minOccurs="0" name="ExecuteProcess_GMLAreaGeometriesResult"
/>
        </xsd:sequence>
    </xsd:complexType>
</xsd:element>
<xsd:element name="DocumentReturn" nillable="true" type="xsd:string"/>
</xsd:schema>
</wsdl:types>
<wsdl:message name="GetCapabilitiesSoapResponse">
    <wsdl:part name="parameters" element="tns:GetCapabilitiesResponse" />
</wsdl:message>
<wsdl:message name="DescribeProcess_GMLAreaGeometriesSoapResponse">
    <wsdl:part name="parameters" element="tns:DescribeProcess_GMLAreaGeometriesResponse" />
</wsdl:message>
<wsdl:message name="DescribeProcess_AllSoapRequest">
    <wsdl:part name="parameters" element="tns:DescribeProcess_All" />
</wsdl:message>
<wsdl:message name="GetCapabilitiesSoapRequest">
    <wsdl:part name="parameters" element="tns:GetCapabilities" />
</wsdl:message>
<wsdl:message name="ExecuteProcess_GMLAreaGeometriesSoapResponse">
    <wsdl:part name="parameters" element="tns:ExecuteProcess_GMLAreaGeometriesResponse" />
</wsdl:message>
<wsdl:message name="EvaluateWPSSoapRequest">
    <wsdl:part name="parameters" element="tns:EvaluateWPS" />
</wsdl:message>
<wsdl:message name="DescribeProcess_GMLAreaGeometriesSoapRequest">
    <wsdl:part name="parameters" element="tns:DescribeProcess_GMLAreaGeometries" />
</wsdl:message>
<wsdl:message name="EvaluateWPSSoapResponse">
    <wsdl:part name="parameters" element="tns:EvaluateWPSResponse" />
</wsdl:message>
<wsdl:portType name="SpatialAnalysisSoap">
    <wsdl:operation name="GetCapabilities">
        <wsdl:input name="GetCapabilitiesRequest" message="tns:GetCapabilitiesSoapRequest" />
        <wsdl:output name="GetCapabilitiesResponse" message="tns:GetCapabilitiesSoapResponse" />
    </wsdl:operation>
    <wsdl:operation name="DescribeProcess_All">
        <wsdl:input name="DescribeProcess_AllRequest" message="tns:DescribeProcess_AllSoapRequest"
/>
        <wsdl:output name="DescribeProcess_AllResponse"
message="tns:DescribeProcess_AllSoapResponse" />
    </wsdl:operation>

```



```

<wsdl:operation name="EvaluateWPS">
  <wsdl:input name="EvaluateWPSRequest" message="tns:EvaluateWPSSoapRequest" />
  <wsdl:output name="EvaluateWPSResponse" message="tns:EvaluateWPSSoapResponse" />
</wsdl:operation>
<wsdl:operation name="DescribeProcess_GMLAreaGeometries">
  <wsdl:input name="DescribeProcess_GMLAreaGeometriesRequest"
message="tns:DescribeProcess_GMLAreaGeometriesSoapRequest" />
  <wsdl:output name="DescribeProcess_GMLAreaGeometriesResponse"
message="tns:DescribeProcess_GMLAreaGeometriesSoapResponse" />
</wsdl:operation>
<wsdl:operation name="ExecuteProcess_GMLAreaGeometries">
  <wsdl:input name="ExecuteProcess_GMLAreaGeometriesRequest"
message="tns:ExecuteProcess_GMLAreaGeometriesSoapRequest" />
  <wsdl:output name="ExecuteProcess_GMLAreaGeometriesResponse"
message="tns:ExecuteProcess_GMLAreaGeometriesSoapResponse" />
</wsdl:operation>
</wsdl:portType>
<wsdl:binding name="SpatialAnalysisSoap" type="tns:SpatialAnalysisSoap">
  <soap:binding style="document" transport="http://schemas.xmlsoap.org/soap/http" />
  <wsdl:operation name="GetCapabilities">
    <soap:operation soapAction="http://wpsint.tigris.org/soap/SpatialAnalysis/GetCapabilities"
style="document" />
    <wsdl:input name="GetCapabilitiesRequest">
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output name="GetCapabilitiesResponse">
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="DescribeProcess_All">
    <soap:operation
soapAction="http://wpsint.tigris.org/soap/SpatialAnalysis/DescribeProcess_All" style="document"
/>
    <wsdl:input name="DescribeProcess_AllRequest">
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output name="DescribeProcess_AllResponse">
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="EvaluateWPS">
    <soap:operation soapAction="http://wpsint.tigris.org/soap/SpatialAnalysis/EvaluateWPS"
style="document" />
    <wsdl:input name="EvaluateWPSRequest">
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output name="EvaluateWPSResponse">
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
</wsdl:operation name="DescribeProcess_GMLAreaGeometries">

```

```

    <soap:operation
soapAction="http://wpsint.tigris.org/soap/SpatialAnalysis/DescribeProcess_GMLAreaGeometries"
style="document" />
    <wsdl:input name="DescribeProcess_GMLAreaGeometriesRequest">
        <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output name="DescribeProcess_GMLAreaGeometriesResponse">
        <soap:body use="literal" />
    </wsdl:output>
</wsdl:operation>
<wsdl:operation name="ExecuteProcess_GMLAreaGeometries">
    <soap:operation
soapAction="http://wpsint.tigris.org/soap/SpatialAnalysis/ExecuteProcess_GMLAreaGeometries"
style="document" />
    <wsdl:input name="ExecuteProcess_GMLAreaGeometriesRequest">
        <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output name="ExecuteProcess_GMLAreaGeometriesResponse">
        <soap:body use="literal" />
    </wsdl:output>
</wsdl:operation>
</wsdl:binding>
<wsdl:service name="SpatialAnalysisService">
    <wsdl:port name="SpatialAnalysisSoap" binding="tns:SpatialAnalysisSoap">
        <soap:address location="http://localhost:8080/nlwis_ws/SpatialAnalysis/service.soap" />
    </wsdl:port>
</wsdl:service>
</wsdl:definitions>

```

4.4.1.4. Send Analysis Message

4.4.1.4.1. Message Semantics

```

<?xml version="1.0" encoding="UTF-8"?>
<schema xmlns="http://www.w3.org/2001/XMLSchema" xmlns:ows="http://www.opengis.net/ows/1.1"
xmlns:xlink="http://www.w3.org/1999/xlink" xmlns:wps="http://www.opengis.net/wps/1.0.0"
targetNamespace="http://www.opengis.net/wps/1.0.0" elementFormDefault="unqualified" xml:lang="en"
version="1.0.0.3">
    <include schemaLocation="common/RequestBaseType.xsd"/>
    <include schemaLocation="common/ResponseBaseType.xsd"/>
    <include schemaLocation="common/DescriptionType.xsd"/>
    <include schemaLocation="common/ProcessBriefType.xsd"/>
    <include schemaLocation="common/WSDL.xsd"/>
    <import namespace="http://www.opengis.net/ows/1.1"
schemaLocation="http://schemas.opengis.net/ows/1.1.0/owsAll.xsd"/>
    <import namespace="http://www.w3.org/1999/xlink"
schemaLocation="http://www.w3.org/1999/xlink.xsd"/>

```

```

<import namespace="http://www.w3.org/XML/1998/namespace"
schemaLocation="http://www.w3.org/2001/xml.xsd"/>
<element name="DescribeProcess">
  <complexType>
    <complexContent>
      <extension base="wps:RequestBaseType">
        <sequence>
          <element ref="ows:Identifier" maxOccurs="unbounded"/>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>
<element name="ProcessDescriptions">
  <complexType>
    <complexContent>
      <extension base="wps:ResponseBaseType">
        <sequence>
          <element name="ProcessDescription" type="wps:ProcessDescriptionType"
maxOccurs="unbounded"/>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>
<complexType name="ProcessDescriptionType">
  <complexContent>
    <extension base="wps:ProcessBriefType">
      <sequence>
        <element name="DataInputs" minOccurs="0">
          <complexType>
            <sequence>
              <element name="Input" type="wps:InputDescriptionType"
maxOccurs="unbounded"/>
            </sequence>
          </complexType>
        </element>
        <element name="ProcessOutputs">
          <complexType>
            <sequence>
              <element name="Output" type="wps:OutputDescriptionType"
maxOccurs="unbounded"/>
            </sequence>
          </complexType>
        </element>
      </sequence>
      <attribute name="storeSupported" type="boolean" use="optional" default="false"/>
      <attribute name="statusSupported" type="boolean" use="optional" default="false"/>
    </extension>
  </complexContent>
</complexType>

```

```

</complexType>
<complexType name="InputDescriptionType">
  <complexContent>
    <extension base="wps:DescriptionType">
      <sequence>
        <group ref="wps:InputFormChoice"/>
      </sequence>
      <attribute name="minOccurs" type="nonNegativeInteger" use="required"/>
      <attribute name="maxOccurs" type="positiveInteger" use="required"/>
    </extension>
  </complexContent>
</complexType>
<group name="InputFormChoice">
  <choice>
    <element name="ComplexData" type="wps:SupportedComplexDataInputType"/>
    <element name="LiteralData" type="wps:LiteralInputType"/>
    <element name="BoundingBoxData" type="wps:SupportedCRSsType"/>
  </choice>
</group>
<complexType name="LiteralInputType">
  <complexContent>
    <extension base="wps:LiteralOutputType">
      <sequence>
        <group ref="wps:LiteralValuesChoice"/>
        <element name="DefaultValue" type="string" minOccurs="0"/>
      </sequence>
    </extension>
  </complexContent>
</complexType>
<group name="LiteralValuesChoice">
  <choice>
    <element ref="ows:AllowedValues"/>
    <element ref="ows:AnyValue"/>
    <element name="ValuesReference" type="wps:ValuesReferenceType"/>
  </choice>
</group>
<complexType name="ValuesReferenceType"/>
  <attribute ref="ows:reference"/>
  <attribute name="valuesForm" type="anyURI"/>
</complexType>
<complexType name="SupportedComplexDataInputType">
  <complexContent>
    <extension base="wps:SupportedComplexDataType">
      <attribute name="maximumMegabytes" type="integer" use="optional"/>
    </extension>
  </complexContent>
</complexType>
<complexType name="SupportedUOMsType">
  <sequence>
    <element name="Default">

```

```

        <complexType>
            <sequence>
                <element ref="ows:UOM"/>
            </sequence>
        </complexType>
    </element>
    <element name="Supported" type="wps:UOMsType"/>
</sequence>
</complexType>
<complexType name="UOMsType">
    <sequence>
        <element ref="ows:UOM" maxOccurs="unbounded"/>
    </sequence>
</complexType>
<complexType name="SupportedCRSsType">
    <sequence>
        <element name="Default">
            <complexType>
                <sequence>
                    <element name="CRS" type="anyURI"/>
                </sequence>
            </complexType>
        </element>
        <element name="Supported" type="wps:CRSsType"/>
    </sequence>
</complexType>
<complexType name="CRSsType">
    <sequence>
        <element name="CRS" type="anyURI" maxOccurs="unbounded"/>
    </sequence>
</complexType>
<complexType name="SupportedComplexDataType">
    <sequence>
        <element name="Default" type="wps:ComplexDataCombinationType"/>
        <element name="Supported" type="wps:ComplexDataCombinationsType"/>
    </element>
</sequence>
</complexType>
<complexType name="ComplexDataCombinationType">
    <sequence>
        <element name="Format" type="wps:ComplexDataDescriptionType"/>
    </sequence>
</complexType>
<complexType name="ComplexDataCombinationsType">
    <sequence>
        <element name="Format" type="wps:ComplexDataDescriptionType" maxOccurs="unbounded"/>
    </sequence>
</complexType>
<complexType name="ComplexDataDescriptionType">
    <sequence>

```

```

        <element name="MimeType" type="ows:MimeType"/>
        <element name="Encoding" type="anyURI" minOccurs="0"/>
        <element name="Schema" type="anyURI" minOccurs="0"/>
    </sequence>
</complexType>
<complexType name="OutputDescriptionType">
    <complexContent>
        <extension base="wps:DescriptionType">
            <group ref="wps:OutputFormChoice"/>
        </extension>
    </complexContent>
</complexType>
<group name="OutputFormChoice">
    <choice>
        <element name="ComplexOutput" type="wps:SupportedComplexDataType"/>
        <element name="LiteralOutput" type="wps:LiteralOutputType"/>
        <element name="BoundingBoxOutput" type="wps:SupportedCRSsType"/>
    </choice>
</group>
<complexType name="LiteralOutputType">
    <sequence>
        <element ref="ows:DataType" minOccurs="0"/>
        <element name="UOMs" type="wps:SupportedUOMsType" minOccurs="0"/>
    </sequence>
</complexType>
<element name="Execute">
    <complexType>
        <complexContent>
            <extension base="wps:RequestBaseType">
                <sequence>
                    <element ref="ows:Identifier"/>
                    <element name="DataInputs" type="wps:DataInputsType" minOccurs="0"/>
                    <element name="ResponseForm" type="wps:ResponseFormType" minOccurs="0"/>
                </sequence>
            </extension>
        </complexContent>
    </complexType>
</element>
<complexType name="DataInputsType">
    <sequence>
        <element name="Input" type="wps:InputType" maxOccurs="unbounded"/>
    </sequence>
</complexType>
<complexType name="ResponseFormType">
    <choice>
        <element name="ResponseDocument" type="wps:ResponseDocumentType"/>
        <element name="RawDataOutput" type="wps:OutputDefinitionType"/>
    </choice>
</complexType>
<complexType name="ResponseDocumentType">

```

```

<sequence>
  <element name="Output" type="wps:DocumentOutputDefinitionType" maxOccurs="unbounded"/>
</sequence>
<attribute name="storeExecuteResponse" type="boolean" use="optional" default="false"/>
<attribute name="lineage" type="boolean" use="optional" default="false"/>
<attribute name="status" type="boolean" default="false"/>
</complexType>
<complexType name="DocumentOutputDefinitionType">
  <complexContent>
    <extension base="wps:OutputDefinitionType">
      <sequence>
        <element ref="ows:Title" minOccurs="0"/>
        <element ref="ows:Abstract" minOccurs="0"/>
      </sequence>
      <attribute name="asReference" type="boolean" use="optional" default="false"/>
    </extension>
  </complexContent>
</complexType>
<complexType name="OutputDefinitionType">
  <sequence>
    <element ref="ows:Identifier"/>
  </sequence>
  <attribute name="uom" type="anyURI" use="optional"/>
  <attributeGroup ref="wps:ComplexDataEncoding"/>
</complexType>
<attributeGroup name="ComplexDataEncoding">
  <attribute name="mimeType" type="ows:MimeType" use="optional"/>
  <attribute name="encoding" type="anyURI" use="optional"/>
  <attribute name="schema" type="anyURI" use="optional"/>
</attributeGroup>
<complexType name="InputType">
  <sequence>
    <element ref="ows:Identifier"/>
    <element ref="ows:Title" minOccurs="0"/>
    <element ref="ows:Abstract" minOccurs="0"/>
    <group ref="wps:InputDataFormChoice"/>
  </sequence>
</complexType>
<group name="InputDataFormChoice">
  <choice>
    <element name="Reference" type="wps:InputReferenceType"/>
    <element name="Data" type="wps:DataType"/>
  </choice>
</group>
<complexType name="DataType">
  <choice>
    <element name="ComplexData" type="wps:ComplexDataType"/>
    <element name="LiteralData" type="wps:LiteralDataType"/>
    <element name="BoundingBoxData" type="ows:BoundingBoxType"/>
  </choice>

```

```

</complexType>
<complexType name="InputReferenceType">
  <sequence minOccurs="0">
    <element name="Header" minOccurs="0" maxOccurs="unbounded">
      <complexType>
        <attribute name="key" type="string" use="required"/>
        <attribute name="value" type="string" use="required"/>
      </complexType>
    </element>
    <choice minOccurs="0">
      <element name="Body" type="anyType"/>
      <element name="BodyReference">
        <complexType>
          <attribute ref="xlink:href" use="required"/>
        </complexType>
      </element>
    </choice>
  </sequence>
  <attribute ref="xlink:href" use="required"/>
  <attribute name="method" use="optional" default="GET">
    <simpleType>
      <restriction base="string">
        <enumeration value="GET"/>
        <enumeration value="POST"/>
      </restriction>
    </simpleType>
  </attribute>
  <attributeGroup ref="wps:ComplexDataEncoding"/>
</complexType>
<complexType name="ComplexDataType" mixed="true">
  <complexContent mixed="true">
    <extension base="anyType">
      <attributeGroup ref="wps:ComplexDataEncoding"/>
    </extension>
  </complexContent>
</complexType>
<complexType name="LiteralDataType">
  <simpleContent>
    <extension base="string">
      <attribute name="dataType" type="anyURI" use="optional"/>
      <attribute name="uom" type="anyURI" use="optional"/>
    </extension>
  </simpleContent>
</complexType>
<element name="ExecuteResponse">
  <complexType>
    <complexContent>
      <extension base="wps:ResponseBaseType">
        <sequence>
          <element name="Process" type="wps:ProcessBriefType"/>

```



```

        <element name="Status" type="wps:StatusType"/>
        <element name="DataInputs" type="wps:DataInputsType" minOccurs="0"/>
        <element name="OutputDefinitions" type="wps:OutputDefinitionsType"
minOccurs="0"/>
        <element name="ProcessOutputs" minOccurs="0">
            <complexType>
                <sequence>
                    <element name="Output" type="wps:OutputDataType"
maxOccurs="unbounded"/>
                </sequence>
            </complexType>
        </element>
    </sequence>
    <attribute name="serviceInstance" type="anyURI" use="required"/>
    <attribute name="statusLocation" type="anyURI" use="optional"/>
</extension>
</complexContent>
</complexType>
</element>
<complexType name="OutputDefinitionsType">
    <sequence>
        <element name="Output" type="wps:DocumentOutputDefinitionType" maxOccurs="unbounded"/>
    </sequence>
</complexType>
<complexType name="OutputDataType">
    <complexContent>
        <extension base="wps:DescriptionType">
            <group ref="wps:OutputDataFormChoice"/>
        </extension>
    </complexContent>
</complexType>
<group name="OutputDataFormChoice">
    <choice>
        <element name="Reference" type="wps:OutputReferenceType"/>
        <element name="Data" type="wps:DataType"/>
    </choice>
</group>
<complexType name="OutputReferenceType">
    <attribute name="href" type="anyURI" use="required"/>
    <attributeGroup ref="wps:ComplexDataEncoding"/>
</complexType>
<complexType name="StatusType">
    <choice>
        <element name="ProcessAccepted" type="string"/>
        <element name="ProcessStarted" type="wps:ProcessStartedType"/>
        <element name="ProcessPaused" type="wps:ProcessStartedType"/>
        <element name="ProcessSucceeded" type="string"/>
        <element name="ProcessFailed" type="wps:ProcessFailedType"/>
    </choice>
    <attribute name="creationTime" type="dateTime" use="required"/>

```

```

</complexType>
<complexType name="ProcessStartedType">
  <simpleContent>
    <extension base="string">
      <attribute name="percentCompleted" use="optional">
        <simpleType>
          <restriction base="integer">
            <minInclusive value="0"/>
            <maxInclusive value="99"/>
          </restriction>
        </simpleType>
      </attribute>
    </extension>
  </simpleContent>
</complexType>
<complexType name="ProcessFailedType">
  <sequence>
    <element ref="ows:ExceptionReport"/>
  </sequence>
</complexType>
<element name="GetCapabilities">
  <complexType>
    <sequence>
      <element name="AcceptVersions" type="ows:AcceptVersionsType" minOccurs="0"/>
    </sequence>
    <attribute name="service" type="ows:ServiceType" use="required" fixed="WPS"/>
    <attribute name="language" type="string"/>
  </complexType>
</element>
<element name="Capabilities" type="wps:WPSCapabilitiesType"/>
<complexType name="WPSCapabilitiesType">
  <complexContent>
    <extension base="ows:CapabilitiesBaseType">
      <sequence>
        <element ref="wps:ProcessOfferings"/>
        <element ref="wps:Languages"/>
        <element ref="wps:WSDL" minOccurs="0"/>
      </sequence>
      <attribute name="service" use="required" fixed="WPS"/>
      <attribute ref="xml:lang" use="required"/>
    </extension>
  </complexContent>
</complexType>
<element name="Languages">
  <complexType>
    <sequence>
      <element name="Default">
        <complexType>
          <sequence>
            <element ref="ows:Language"/>

```

```

        </sequence>
      </complexType>
    </element>
    <element name="Supported" type="wps:LanguagesType"/>
  </sequence>
</complexType>
</element>
<complexType name="LanguagesType">
  <sequence>
    <element ref="ows:Language" maxOccurs="unbounded"/>
  </sequence>
</complexType>
<element name="ProcessOfferings">
  <complexType>
    <sequence>
      <element name="Process" type="wps:ProcessBriefType" maxOccurs="unbounded"/>
    </sequence>
  </complexType>
</element>
</schema>

```

4.4.1.4.2. Protocol Requirements

```

<?xml version="1.0" encoding="UTF-8" ?>
<wsdl:definitions name="SpatialAnalysis"
targetNamespace="http://wpsint.tigris.org/soap/SpatialAnalysis"
xmlns:tns="http://wpsint.tigris.org/soap/SpatialAnalysis"
xmlns:mime="http://schemas.xmlsoap.org/wsdl/mime/"
xmlns:soap12="http://schemas.xmlsoap.org/wsdl/soap12/"
xmlns:http="http://schemas.xmlsoap.org/wsdl/http/"
xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/">
  <wsdl:types>
    <xsd:schema elementFormDefault="qualified"
targetNamespace="http://wpsint.tigris.org/soap/SpatialAnalysis">
      <xsd:element name="GetCapabilities">
        <xsd:complexType>
          <xsd:sequence>
            <xsd:element maxOccurs="1" minOccurs="0" name="updateSequence" type="xsd:string" />
            <xsd:element maxOccurs="1" minOccurs="0" name="acceptFormats" type="xsd:string" />
            <xsd:element maxOccurs="1" minOccurs="0" name="acceptVersions" type="xsd:string" />
          </xsd:sequence>
        </xsd:complexType>
      </xsd:element>
      <xsd:element name="GetCapabilitiesResponse">
        <xsd:complexType>

```

```
<xsd:sequence>
  <xsd:element maxOccurs="1" minOccurs="0" name="GetCapabilitiesResult" />
</xsd:sequence>
</xsd:complexType>
</xsd:element>
<xsd:element name="DescribeProcess_All">
  <xsd:complexType />
</xsd:element>
<xsd:element name="DescribeProcess_AllResponse">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element maxOccurs="1" minOccurs="0" name="DescribeProcess_AllResult" />
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
<xsd:element name="EvaluateWPS">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element maxOccurs="1" minOccurs="0" name="wpsRequestDocument" />
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
<xsd:element name="EvaluateWPSResponse">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element maxOccurs="1" minOccurs="0" name="EvaluateWPSResult" />
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
<xsd:element name="DescribeProcess_GMLAreaGeometries">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element maxOccurs="1" minOccurs="0" name="updateSequence" type="xsd:string" />
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
<xsd:element name="DescribeProcess_GMLAreaGeometriesResponse">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element maxOccurs="1" minOccurs="0"
name="DescribeProcess_GMLAreaGeometriesResult" />
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
<xsd:element name="ExecuteProcess_GMLAreaGeometries">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element maxOccurs="1" minOccurs="0" name="GmlUrlResource" type="xsd:string" />
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
```

```

        </xsd:element>
        <xsd:element name="ExecuteProcess_GMLAreaGeometriesResponse">
            <xsd:complexType>
                <xsd:sequence>
                    <xsd:element maxOccurs="1" minOccurs="0" name="ExecuteProcess_GMLAreaGeometriesResult"
/>
                </xsd:sequence>
            </xsd:complexType>
        </xsd:element>
        <xsd:element name="DocumentReturn" nillable="true" type="xsd:string"/>
    </xsd:schema>
</wsdl:types>
<wsdl:message name="GetCapabilitiesSoapResponse">
    <wsdl:part name="parameters" element="tns:GetCapabilitiesResponse" />
</wsdl:message>
<wsdl:message name="DescribeProcess_GMLAreaGeometriesSoapResponse">
    <wsdl:part name="parameters" element="tns:DescribeProcess_GMLAreaGeometriesResponse" />
</wsdl:message>
<wsdl:message name="DescribeProcess_AllSoapRequest">
    <wsdl:part name="parameters" element="tns:DescribeProcess_All" />
</wsdl:message>
<wsdl:message name="GetCapabilitiesSoapRequest">
    <wsdl:part name="parameters" element="tns:GetCapabilities" />
</wsdl:message>
<wsdl:message name="ExecuteProcess_GMLAreaGeometriesSoapResponse">
    <wsdl:part name="parameters" element="tns:ExecuteProcess_GMLAreaGeometriesResponse" />
</wsdl:message>
<wsdl:message name="EvaluateWPSSoapRequest">
    <wsdl:part name="parameters" element="tns:EvaluateWPS" />
</wsdl:message>
<wsdl:message name="DescribeProcess_GMLAreaGeometriesSoapRequest">
    <wsdl:part name="parameters" element="tns:DescribeProcess_GMLAreaGeometries" />
</wsdl:message>
<wsdl:message name="EvaluateWPSSoapResponse">
    <wsdl:part name="parameters" element="tns:EvaluateWPSResponse" />
</wsdl:message>
<wsdl:portType name="SpatialAnalysisSoap">
    <wsdl:operation name="GetCapabilities">
        <wsdl:input name="GetCapabilitiesRequest" message="tns:GetCapabilitiesSoapRequest" />
        <wsdl:output name="GetCapabilitiesResponse" message="tns:GetCapabilitiesSoapResponse" />
    </wsdl:operation>
    <wsdl:operation name="DescribeProcess_All">
        <wsdl:input name="DescribeProcess_AllRequest" message="tns:DescribeProcess_AllSoapRequest"
/>
        <wsdl:output name="DescribeProcess_AllResponse"
message="tns:DescribeProcess_AllSoapResponse" />
    </wsdl:operation>
    <wsdl:operation name="EvaluateWPS">
        <wsdl:input name="EvaluateWPSRequest" message="tns:EvaluateWPSSoapRequest" />
        <wsdl:output name="EvaluateWPSResponse" message="tns:EvaluateWPSSoapResponse" />
    </wsdl:operation>

```

```
</wsdl:operation>
<wsdl:operation name="DescribeProcess_GMLAreaGeometries">
  <wsdl:input name="DescribeProcess_GMLAreaGeometriesRequest"
message="tns:DescribeProcess_GMLAreaGeometriesSoapRequest" />
  <wsdl:output name="DescribeProcess_GMLAreaGeometriesResponse"
message="tns:DescribeProcess_GMLAreaGeometriesSoapResponse" />
</wsdl:operation>
<wsdl:operation name="ExecuteProcess_GMLAreaGeometries">
  <wsdl:input name="ExecuteProcess_GMLAreaGeometriesRequest"
message="tns:ExecuteProcess_GMLAreaGeometriesSoapRequest" />
  <wsdl:output name="ExecuteProcess_GMLAreaGeometriesResponse"
message="tns:ExecuteProcess_GMLAreaGeometriesSoapResponse" />
</wsdl:operation>
</wsdl:portType>
<wsdl:binding name="SpatialAnalysisSoap" type="tns:SpatialAnalysisSoap">
  <soap:binding style="document" transport="http://schemas.xmlsoap.org/soap/http" />
  <wsdl:operation name="GetCapabilities">
    <soap:operation soapAction="http://wpsint.tigris.org/soap/SpatialAnalysis/GetCapabilities"
style="document" />
    <wsdl:input name="GetCapabilitiesRequest">
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output name="GetCapabilitiesResponse">
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="DescribeProcess_All">
    <soap:operation
soapAction="http://wpsint.tigris.org/soap/SpatialAnalysis/DescribeProcess_All" style="document"
/>
    <wsdl:input name="DescribeProcess_AllRequest">
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output name="DescribeProcess_AllResponse">
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="EvaluateWPS">
    <soap:operation soapAction="http://wpsint.tigris.org/soap/SpatialAnalysis/EvaluateWPS"
style="document" />
    <wsdl:input name="EvaluateWPSRequest">
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output name="EvaluateWPSResponse">
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="DescribeProcess_GMLAreaGeometries">
    <soap:operation
soapAction="http://wpsint.tigris.org/soap/SpatialAnalysis/DescribeProcess_GMLAreaGeometries"
style="document" />
```

```
<wsdl:input name="DescribeProcess_GMLAreaGeometriesRequest">
  <soap:body use="literal" />
</wsdl:input>
<wsdl:output name="DescribeProcess_GMLAreaGeometriesResponse">
  <soap:body use="literal" />
</wsdl:output>
</wsdl:operation>
<wsdl:operation name="ExecuteProcess_GMLAreaGeometries">
  <soap:operation
soapAction="http://wpsint.tigris.org/soap/SpatialAnalysis/ExecuteProcess_GMLAreaGeometries"
style="document" />
  <wsdl:input name="ExecuteProcess_GMLAreaGeometriesRequest">
    <soap:body use="literal" />
  </wsdl:input>
  <wsdl:output name="ExecuteProcess_GMLAreaGeometriesResponse">
    <soap:body use="literal" />
  </wsdl:output>
</wsdl:operation>
</wsdl:binding>
<wsdl:service name="SpatialAnalysisService">
  <wsdl:port name="SpatialAnalysisSoap" binding="tns:SpatialAnalysisSoap">
    <soap:address location="http://localhost:8080/nlwis_ws/SpatialAnalysis/service.soap" />
  </wsdl:port>
</wsdl:service>
</wsdl:definitions>
```