

OSPF Capability API

WADL

URL

[http://hostname:8888/opennaas/router/name\)/ospf?_wadl](http://hostname:8888/opennaas/router/name)/ospf?_wadl)

Description

ospf.wadl

```
<?xml version="1.0" encoding="UTF-8"?>
<application xmlns="http://wadl.dev.java.net/2009/02" xmlns:prefix1="opennaas.api" xmlns:xs="
http://www.w3.org/2001/XMLSchema">
  <grammars>
    <xs:schema xmlns="opennaas.api" attributeFormDefault="unqualified" elementFormDefault="
unqualified" targetNamespace="opennaas.api">
      <xs:import namespace="" />
      <xs:element name="ospfArea" type="ospfAreaWrapper" />
      <xs:element name="ospfProtocolEndpoint" type="ospfProtocolEndpointWrapper" />
      <xs:element name="ospfService" type="ospfServiceWrapper" />
    </xs:schema>
    <xs:schema xmlns:ns1="opennaas.api" attributeFormDefault="unqualified"
elementFormDefault="unqualified" targetNamespace="opennaas.api">
      <xs:import namespace="opennaas.api" />
      <xs:element name="interfaces" type="interfacesNamesList" />
      <xs:complexType name="interfacesNamesList">
        <xs:sequence>
          <xs:element maxOccurs="unbounded" minOccurs="0" name="interface" type="xs:
string" />
        </xs:sequence>
      </xs:complexType>
      <xs:complexType name="ospfServiceWrapper">
        <xs:sequence>
          <xs:element minOccurs="0" name="routerId" type="xs:string" />
          <xs:element minOccurs="0" name="enabledState" type="enabledState" />
          <xs:element maxOccurs="unbounded" minOccurs="0" name="ospfArea" type="
ospfAreaWrapper" />
        </xs:sequence>
      </xs:complexType>
      <xs:complexType name="ospfAreaWrapper">
        <xs:sequence>
          <xs:element minOccurs="0" name="areaId" type="xs:string" />
          <xs:element minOccurs="0" name="areaType" type="areaType" />
          <xs:element minOccurs="0" name="ospfProtocolEndpoints">
            <xs:complexType>
              <xs:sequence>
                <xs:element maxOccurs="unbounded" minOccurs="0" name="
ospfProtocolEndpoint" nillable="true" type="ospfProtocolEndpointWrapper" />
              </xs:sequence>
            </xs:complexType>
          </xs:element>
        </xs:sequence>
      </xs:complexType>
      <xs:complexType name="ospfProtocolEndpointWrapper">
        <xs:sequence>
          <xs:element minOccurs="0" name="name" type="xs:string" />
          <xs:element minOccurs="0" name="enabledState" type="enabledState" />
        </xs:sequence>
      </xs:complexType>
    </xs:schema>
  </grammars>

```

```

        </xs:sequence>
    </xs:complexType>
    <xs:simpleType name="enabledState">
        <xs:restriction base="xs:string">
            <xs:enumeration value="UNKNOWN" />
            <xs:enumeration value="OTHER" />
            <xs:enumeration value="ENABLED" />
            <xs:enumeration value="DISABLED" />
            <xs:enumeration value="SHUTTING_DOWN" />
            <xs:enumeration value="NOT_APPLICABLE" />
            <xs:enumeration value="ENABLED_BUT_OFFLINE" />
            <xs:enumeration value="IN_TEST" />
            <xs:enumeration value="DEFERRED" />
            <xs:enumeration value="QUIESCE" />
            <xs:enumeration value="STARTING" />
            <xs:enumeration value="DMTF_RESERVED" />
            <xs:enumeration value="VENDOR_RESERVED" />
        </xs:restriction>
    </xs:simpleType>
    <xs:simpleType name="areaType">
        <xs:restriction base="xs:string">
            <xs:enumeration value="PLAIN" />
            <xs:enumeration value="STUB" />
            <xs:enumeration value="NSSA" />
        </xs:restriction>
    </xs:simpleType>
</xs:schema>
</grammars>
<resources base="http://localhost:8888/opennaas/router/myre/ospf/">
    <resource path="/">
        <method name="DELETE">
            <response status="204" />
        </method>
        <method name="GET">
            <response>
                <representation mediaType="application/xml" element="prefix1:ospfService" />
            </response>
        </method>
        <method name="POST">
            <request>
                <representation mediaType="application/xml" element="prefix1:ospfService" />
            </request>
            <response status="204" />
        </method>
        <resource path="area">
            <method name="DELETE">
                <request>
                    <param name="areaId" style="query" type="xs:string" />
                </request>
                <response status="204" />
            </method>
            <method name="POST">
                <request>
                    <representation mediaType="application/xml" element="prefix1:ospfArea" />
                </request>
                <response status="204" />
            </method>
        </resource>
        <resource path="area/interfaces">

```

```

    <method name="PUT">
      <request>
        <param name="areaId" style="query" type="xs:string" />
        <representation mediaType="application/xml" />
      </request>
      <response status="204" />
    </method>
  </resource>
  <resource path="area/interfaces/delete">
    <method name="PUT">
      <request>
        <param name="areaId" style="query" type="xs:string" />
        <representation mediaType="application/xml" />
      </request>
      <response status="204" />
    </method>
  </resource>
  <resource path="interfaces/status/disable">
    <method name="PUT">
      <request>
        <representation mediaType="application/xml" />
      </request>
      <response status="204" />
    </method>
  </resource>
  <resource path="interfaces/status/enable">
    <method name="PUT">
      <request>
        <representation mediaType="application/xml" />
      </request>
      <response status="204" />
    </method>
  </resource>
  <resource path="status/active">
    <method name="PUT">
      <response status="204" />
    </method>
  </resource>
  <resource path="status/inactive">
    <method name="PUT">
      <response status="204" />
    </method>
  </resource>
</resources>
</application>

```

Methods

ReadOSPFConfiguration

This method returns the existing OSPF configuration in a router, in terms of different OSPFAreas and the set of interfaces in each of them.

	Value	Description
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URL	http://hostname:8888/opennaas/router/{resourceName}/ospf/	
Method	GET	
Return	OSPFSERVICE	OSPFSERVICE containing the existing OSPFAreas and the interfaces of each area.

Response Example

Following example would illustrate a router with one OSPFArea and 4 enabled interfaces in it.

```
<?xml version="1.0" encoding="UTF-8"?>
<ospfService>
  <routerId>193.1.190.141</routerId>
  <enabledState>ENABLED</enabledState>
  <ospfArea>
    <areaId>0.0.0.0</areaId>
    <ospfProtocolEndpoints>
      <ospfProtocolEndpoint>
        <name>ge-2/0/0.13</name>
        <enabledState>ENABLED</enabledState>
      </ospfProtocolEndpoint>
      <ospfProtocolEndpoint>
        <name>gr-1/1/0.1</name>
        <enabledState>ENABLED</enabledState>
      </ospfProtocolEndpoint>
      <ospfProtocolEndpoint>
        <name>gr-1/1/0.2</name>
        <enabledState>ENABLED</enabledState>
      </ospfProtocolEndpoint>
      <ospfProtocolEndpoint>
        <name>gr-1/1/0.3</name>
        <enabledState>ENABLED</enabledState>
      </ospfProtocolEndpoint>
    </ospfProtocolEndpoints>
  </ospfArea>
</ospfService>
```

Configure OSPF

Configures OSPF in the router. By default, OSPF is created but it's in a disable state. It can be enabled with the enableOSPF after you configure all the desired information. Optionally the routerId can be specified when calling this method.

	Value	Description
URL	http://hostname:8888/opennaas/router/{resourceName}/ospf/	
Method	POST	
Body Parameter	OSPFSERVICE	OSPFSERVICE containing the desired initial state of the OSPF service and optionally the routerId.
Return	-	

Body Example

Following example would configure OSPF in an ENABLED state, with the routerId 193.1.190.141

```
<?xml version="1.0" encoding="UTF-8"?>
<ospfService>
  <routerId>193.1.190.141</routerId>
</ospfService>
```

ClearOSPFConfiguration

Removes the whole OSPF configuration from the router.

	Value	Description
URL	http://hostname:8888/opennaas/router/{resourceName}/ospf/	
Method	DELETE	
Return	-	

ActivateOSPF

Enables OSPF service in the router.

	Value	Description
URL	http://hostname:8888/opennaas/router/{resourceName}/ospf/status/active	
Method	PUT	
Return	-	

DeactivateOSPF

Disables the OSPF service in the router.

	Value	Description
URL	http://hostname:8888/opennaas/router/{resourceName}/ospf/status/inactive	
Method	PUT	
Return	-	

ConfigureOSPFArea

Adds an OSPF area to the router. Optionally it can includes a list of interfaces to add to this area, with their enabled state.

	Value	Description
URL	http://hostname:8888/opennaas/router/{resourceName}/ospf/area	
Method	POST	
Body Parameter	OSPFArea	OSPF Area containing its id, type (optional) and optionally the list of interfaces to be added, with their enabled state.
Return	-	

Body Example

Following example would create an OSPF area with id 0.0.0.0 and 4 interfaces in it, all of them enabled.

```
<?xml version="1.0" encoding="UTF-8"?>
<ospfArea>
  <areaId>0.0.0.0</areaId>
  <ospfProtocolEndpoints>
    <ospfProtocolEndpoint>
      <name>ge-2/0/0.13</name>
      <enabledState>ENABLED</enabledState>
    </ospfProtocolEndpoint>
    <ospfProtocolEndpoint>
      <name>gr-1/1/0.1</name>
      <enabledState>ENABLED</enabledState>
    </ospfProtocolEndpoint>
    <ospfProtocolEndpoint>
      <name>gr-1/1/0.2</name>
      <enabledState>ENABLED</enabledState>
    </ospfProtocolEndpoint>
    <ospfProtocolEndpoint>
      <name>gr-1/1/0.3</name>
      <enabledState>ENABLED</enabledState>
    </ospfProtocolEndpoint>
  </ospfProtocolEndpoints>
</ospfArea>
```

RemoveOSPFArea

Removes an existing OSPFArea from the router.

	Value	Description
URL	http://hostname:8888/opennaas/router/{resourceName}/ospf/area?areald={areald}	
Method	POST	
QueryParameter	areald	Id of the area to be deleted.
Return	-	

AddInterfacesInOSPFArea

Adds a list of interfaces to an existing OSPF area. By default it will be added with "enabled" state.

	Value	Description
URL	http://hostname:8888/opennaas/router/{resourceName}/ospf/area/interfaces?areald={areald}	
Method	PUT	
Query Parameter	areald	Id of the area where we want to add the interfaces.
Body Parameter	InterfacesNamesList	List with the name of the interfaces to add to the OSPF area.
Return	-	

Body Example

Following request would add interface fe-0/3/3.2 to the 0.0.0.0 area.

```
<?xml version="1.0" encoding="UTF-8"?>
<interfaces>
  <interface>fe-0/3/3.2</interface>
</interfaces>
```

RemoveInterfacesInOSPFArea

Removes a list of interface from an existing OSPF area they belong to.

	Value	Description
URL	http://hostname:8888/opennaas/router/{resourceName}/ospf/area/interfaces?areald={areald}	
Method	PUT	
Query Parameter	areald	Id of the area where we want to add the interfaces.
Body Parameter	InterfacesNamesList	List with the name of the interfaces to add to the OSPF area.
Return	-	

Body Example

Following request would remove interface fe-0/3/3.1 and fe-0/3/3.2 from the 0.0.0.0 area.

```
<?xml version="1.0" encoding="UTF-8"?>
<interfaces>
  <interface>fe-0/3/3.1</interface>
  <interface>fe-0/3/3.2</interface>
</interfaces>
```

EnableOSPFInterfaces

Enables a list existing OSPF interfaces which are in disable state. It's independent from the area they belong to.

	Value	Description
URL	http://hostname:8888/opennaas/router/{resourceName}/ospf/interfaces/enable	
Method	PUT	
Return	-	

Body Example

Following request would enable interfaces fe-0/3/3.1 and ge-0/1/1.3.

```
<?xml version="1.0" encoding="UTF-8"?>
<interfaces>
  <interface>fe-0/3/3.1</interface>
  <interface>ge-0/1/1.3</interface>
</interfaces>
```

DisableOSPFInterfaces

Disables a list existing OSPF interfaces which are in enabled state. It's independent from the area they belong to.

	Value	Description
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URL	http://hostname:8888/opennaas/router/{resourceName}/ospf/interfaces/disable	
Method	PUT	
Return	-	

Body Example

Following request would disable interface fe-0/3/3.1

```
<?xml version="1.0" encoding="UTF-8"?>
<interfaces>
  <interface>fe-0/3/3.1</interface>
</interfaces>
```