

# NffgService REST API Documentation

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## 1 Resources

NffgService REST API includes the following resources:

Resource URL	Description
localhost:8080/NffgService/rest/	base URL
localhost:8080/NffgService/rest/application.wadl	WADL description of the service
localhost:8080/NffgService/rest/resource/	the main resource of the service
localhost:8080/NffgService/rest/resource/nffgs	the set of nffgs
localhost:8080/NffgService/rest/resource/nffgs/id	the nffg identified by id
localhost:8080/NffgService/rest/resource/nffgs/id/nodes	the set of nodes of nffg id
localhost:8080/NffgService/rest/resource/nffgs/id/nodes/id	the node identified by id of nffg id
localhost:8080/NffgService/rest/resource/nffgs/id/links	the set of links of nffg id
localhost:8080/NffgService/rest/resource/nffgs/id/links/id	the link identified by id of nffg id
localhost:8080/NffgService/rest/resource/nffgs/id/policies	the set of policies of nffg id
localhost:8080/NffgService/rest/resource/nffgs/id/policies/id	the policy identified by id of nffg id
localhost:8080/NffgService/rest/resource/policies	the set of the whole policies
localhost:8080/NffgService/rest/resource/policies/id	the glob policy identified by id
localhost:8080/NffgService/rest/resource/verification/	?? Vedere se aggiungerlo

## 2 Operations

### 2.1 Summary

Resource URL	Operations
nffgs	1. POST - Create one Nffg 1b. GET - Get all Nffgs
nffgs/2	2. DELETE - Delete all nffgs 3. POST- Verify the policy 4. GET - Get one nffg
nodes	5. DELETE - Delete one nffg 6. POST - Create a Node 7. GET - Get all nodes
nodes/15	8. DELETE - Delete nodes 9. GET - Get this Node 10. DELETE - Delete a node
links	11. POST - Create a Link 12. GET - Get all links 13. DELETE - Delete all links
links/9	14. POST 15. GET
policies	16. POST 17. GET 18. PATCH 19. DELETE
policies/4	20. POST 21. PATCH 22. DELETE
nffgPolicies	23. POST 24. DELETE
verifications	25. POST 26. GET 27. DELETE

### 2.2 Methods Definition

#### 1. Create Nffg

*Example Request*

- **POST** http://localhost:8080/NffgService/rest/nffgs/
- **Content-Type:** application/xml
- **BODY:**

```
<nffg xmlns="http://" name="" />
```

*Example Response*

- **200:** OK
- **Content-Type:** application/xml

- **BODY:**

```
<nffg xmlns="http://" name="" id=""/>
```

## 2. Delete all Nffgs

### *Example Request*

- **DELETE** http://localhost:8080/NffgService/rest/nffgs
- **Content-Type:** application/xml

### *Example Response*

- **204:** NO CONTENT
- **Content-Type:** text/plain

## 3. Verify the Policy (Nffg -> POST Execute verification of one ore more policies passed)

### *Example Request*

- **POST** http://localhost:8080/NffgService/rest/nffgs/{id}
- **Content-Type:** application/xml
- **BODY:**

```
<policies xmlns="">
  <reachabilityPolicy>
    <Source></Source>
    <Destination></Destination>
    <isPositive></isPositive>
  </reachabilityPolicy>
</policies>
```

### *Example Response*

- **200:** OK
- **Content-Type:** application/xml
- **BODY:**

```
<policies xmlns="">
  <reachabilityPolicy>
    <Source></Source>
    <Destination></Destination>
    <isPositive></isPositive>
    <Verification>
      <Time/>
      <Message/>
      <Result/>
    </Verification>
  </reachabilityPolicy>
</policies>
```

#### 4. Get Nffg by ID

##### *Example Request*

- **GET** http://localhost:8080/NffgService/rest/nffgs/{id}
- **Content-Type:** application/xml

##### *Example Response*

- **200:** OK
- **Content-Type:** application/xml
- **BODY:**

```
<policies xmlns="">
  <reachabilityPolicy>
    <Source></Source>
    <Destination></Destination>
    <isPositive></isPositive>
    <Verification>
      <Time/>
      <Message/>
      <Result/>
    </Verification>
  </reachabilityPolicy>
</reachabilityPolicy/>
</policies>
```

#### 5. Delete Nffg by ID

##### *Example Request*

- **DELETE** http://localhost:8080/NffgService/rest/nffgs/{id}
- **Content-Type:** application/xml

##### *Example Response*

- **204:** NO CONTENT
- **Content-Type:** text/plain

#### 6. Create Node

##### *Example Request*

- **POST** http://localhost:8080/NffgService/rest/nffgs/{id}/nodes
- **Content-Type:** application/xml

- **BODY:**

```
<node xmlns="">
  <service></service>
</node>
```

*Example Response*

- **200:** OK
- **Content-Type:** application/xml
- **BODY:**

```
<node xmlns="" id="">
  <service></service>
</node>
```

## 7. Get all Nodes

*Example Request*

- **GET** http://localhost:8080/NffgService/rest/nffgs/{id}/nodes
- **Content-Type:** application/xml

*Example Response*

- **200:** OK
- **Content-Type:** application/xml
- **BODY:**

```
<nodes xmlns="">
  <node id="">
    <service></service>
  </node>
  <node id="">
    <service></service>
  </node>
  ...
</nodes>
```

## 8. Delete all Nodes

*Example Request*

- **DELETE** http://localhost:8080/NffgService/rest/nffgs/{id}/nodes
- **Content-Type:** application/xml

*Example Response*

- **204:** NO CONTENT

- **Content-Type:** text/plain

## 9. Get Node by ID

### *Example Request*

- **GET** http://localhost:8080/NffgService/rest/nffgs/{id}/nodes/{id}
- **Content-Type:** application/xml

### *Example Response*

- **200:** OK
- **Content-Type:** application/xml
- **BODY:**

```
<node xmlns="http://" id="">
  <service>...</service>
</node>
```

## 10. Delete Node by ID

### *Example Request*

- **DELETE** http://localhost:8080/NffgService/rest/nffgs/{id}/nodes/{id}
- **Content-Type:** application/xml

### *Example Response*

- **204:** NO CONTENT
- **Content-Type:** text/plain

## 11. Create Link

### *Example Request*

- **POST** http://localhost:8080/NffgService/rest/nffgs/{id}/links
- **Content-Type:** application/xml
- **BODY:**

```
<link xmlns="">
</link>
```

### *Example Response*

- **200:** OK
- **Content-Type:** application/xml

- **BODY:**

```
<link xmlns="" id="" ">  
</link>
```

## 12. Get all Links

### *Example Request*

- **GET** `http://localhost:8080/NffgService/rest/nffgs/{id}/links`
- **Content-Type:** `application/xml`

### *Example Response*

- **200:** OK
- **Content-Type:** `application/xml`
- **BODY:**

```
<links xmlns="">  
  <link id="">  
  </link>  
  <link id="">  
  </link>  
  ...  
</links>
```

## 13. Delete all Links

### *Example Request*

- **DELETE** `http://localhost:8080/NffgService/rest/nffgs/{id}/links`
- **Content-Type:** `application/xml`

### *Example Response*

- **204:** NO CONTENT
- **Content-Type:** `text/plain`

## 14. Get Link by ID

### *Example Request*

- **GET** `http://localhost:8080/NffgService/rest/nffgs/{id}/links/{id}`
- **Content-Type:** `application/xml`

### *Example Response*

- **200:** OK

- **Content-Type:** application/xml
- **BODY:**

```
<link xmlns="http://">
</link>
```

## 15. Delete Link by ID

*Example Request*

- **DELETE** http://localhost:8080/NffgService/rest/nffgs/{id}/links/{id}
- **Content-Type:** application/xml

*Example Response*

- **204:** NO CONTENT
- **Content-Type:** text/plain

## 16. Create Policy

*Example Request*

- **POST** http://localhost:8080/NffgService/rest/policies
- **Content-Type:** application/xml
- **BODY:**

```
<reachabilityPolicy xmlns="" id=" ">
...
</reachabilityPolicy>
```

```
<traversalPolicy xmlns="" id=" ">
...
<traversalPolicy>
```

*Example Response*

- **200:** OK
- **Content-Type:** application/xml
- **BODY:**

```
<reachabilityPolicy xmlns="" id=" ">
...
</reachabilityPolicy>
```

```
<traversalPolicy xmlns="" id=" ">
...
<traversalPolicy>
```



## 17. Get all Policies

### *Example Request*

- **GET** http://localhost:8080/NffgService/rest/policies/
- **Content-Type:** application/xml

### *Example Response*

- **200:** OK
- **Content-Type:** application/xml
- **BODY:**

```
<policies xmlns="">
  <reachabilityPolicy xmlns="" id=" ">
  ...
</reachabilityPolicy>
  <traversalPolicy xmlns="" id=" ">
  ...
<traversalPolicy>
  ...
<policies>
```

## 18. Verify one or more Reachability Policies (4.)

### *Example Request*

- **PATCH** http://localhost:8080/NffgService/rest/policies
- **Content-Type:** application/xml
- **BODY:**

```
<policies xmlns="">
  <reachabilityPolicy id="" />
  <reachabilityPolicy id="" />
  <reachabilityPolicy id="" />
</policies>
```

### *Example Response*

- **200:** OK ?????
- **Content-Type:** application/xml

## 19. Delete all Policies

### *Example Request*

- **DELETE** http://localhost:8080/NffgService/rest/policies/

- **Content-Type:** application/xml

*Example Response*

- **204:** NO CONTENT
- **Content-Type:** text/plain

## 20. Get Policy by ID

*Example Request*

- **GET** http://localhost:8080/NffgService/rest/policies/{id}
- **Content-Type:** application/xml

*Example Response*

- **200:** OK
- **Content-Type:** application/xml
- **BODY:**

```
<reachabilityPolicy xmlns="http://" id="">
</reachabilityPolicy>
```

## 21. Update a single Policy

*Example Request*

- **PATCH** http://localhost:8080/NffgService/rest/policies/{id}
- **Content-Type:** application/xml
- **BODY:**

```
<reachabilityPolicy xmlns="" id="">
solo campi da aggiornare...
nel caso dell'aggiornamento del campo virifi-
cation cancello tutto? SISTO
<reacabilityPolicy/>
```

*Example Response*

- **200:** OK ?????
- **Content-Type:** application/xml

## 22. Delete Policy by ID

*Example Request*

- **DELETE** http://localhost:8080/NffgService/rest/policies/{id}
- **Content-Type:** application/xml

*Example Response*

- **204:** NO CONTENT
- **Content-Type:** text/plain

### 23. Get all Policies inside Nffg ID

*Example Request*

- **GET** http://localhost:8080/NffgService/rest/nffg/id/policies/
- **Content-Type:** application/xml

*Example Response*

- **200:** OK
- **Content-Type:** application/xml
- **BODY:**

```
<policies xmlns="">
  <reachabilityPolicy xmlns="" id=" ">
    ...
  </reachabilityPolicy>
  <traversalPolicy xmlns="" id=" ">
    ...
  </traversalPolicy>
  ...
</policies>
```

### 24. Delete all Policies inside Nffg ID

*Example Request*

- **DELETE** http://localhost:8080/NffgService/rest/nffg/id/policies/
- **Content-Type:** application/xml

*Example Response*

- **204:** NO CONTENT
- **Content-Type:** text/plain