

# Querying Topology Service

## Service URL:

<http://150.162.248.5:8080/TopologyCollectorService/services/TopologyCollectorService>

## Request for Node list with Brief Information:

```
<nmwg:message type="TopologyRequest"
  id="msg1"
  xmlns:nmwg="http://ggf.org/ns/nmwg/base/2.0/"
  xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0/">
  <nmwg:metadata id="11">
    <nmwgtopo3:subject id="YYY">
      </nmwgtopo3:subject>
    <nmwg:eventType>http://ggf.org/ns/nmwg/topology/actions/node/list/brief</nmwg:eventType>
    <nmwgtopo3:parameters id="YYY">
      </nmwgtopo3:parameters>
    </nmwg:metadata>
    <nmwg:data id="data0" metadataIdRef="11"/>
  </nmwg:message>
```

## Response

```

<?xml version="1.0" encoding="UTF-8"?>
<nmwg:message id="msg1_resp" messageIdRef="msg1" type="TopologyResponse" xmlns:nmwg="http://ggf.org/ns/nmwg/base/2.0/">
  <nmwg:metadata id="11">
    <nmwgtopo3:subject id="YYY" xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0"/>
    <nmwgtopo3:parameters id="YYY" xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0"/>
    <nmwg:eventType>http://ggf.org/ns/nmwg/topology/actions/node/list/brief</nmwg:eventType>
  </nmwg:metadata>
  <nmwg:data id="node 7" metadataIdRef="11">
    <nmwgtopo3:node id="7" xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0/">
      <nmwgtopo3:name>Catalyst-POPSC.pop-sc.rnp.br</nmwgtopo3:name>
      <nmwgtopol3:ipAddress value="200.237.194.253" xmlns:nmwgtopol3="http://ggf.org/ns/nmwg/topology/l3/3.0"/>
      <nmwgtopo3:status>enable</nmwgtopo3:status>
    </nmwgtopo3:node>
  </nmwg:data>
  <nmwg:data id="node 5" metadataIdRef="11">
    <nmwgtopo3:node id="5" xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0/">
      <nmwgtopo3:name>npd246</nmwgtopo3:name>
      <nmwgtopol3:ipAddress value="150.162.250.246" xmlns:nmwgtopol3="http://ggf.org/ns/nmwg/topology/l3/3.0"/>
      <nmwgtopo3:status>enable</nmwgtopo3:status>
    </nmwgtopo3:node>
  </nmwg:data>
  <nmwg:data id="node 1" metadataIdRef="11">
    <nmwgtopo3:node id="1" xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0/">
      <nmwgtopo3:name>NPD254-RS3000</nmwgtopo3:name>
      <nmwgtopol3:ipAddress value="150.162.250.254" xmlns:nmwgtopol3="http://ggf.org/ns/nmwg/topology/l3/3.0"/>
      <nmwgtopo3:status>enable</nmwgtopo3:status>
    </nmwgtopo3:node>
  </nmwg:data>
  <nmwg:data id="node 3" metadataIdRef="11">
    <nmwgtopo3:node id="3" xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0/">
      <nmwgtopo3:name>NPD252CISCO</nmwgtopo3:name>
      <nmwgtopol3:ipAddress value="150.162.250.252" xmlns:nmwgtopol3="http://ggf.org/ns/nmwg/topology/l3/3.0"/>
      <nmwgtopo3:status>enable</nmwgtopo3:status>
    </nmwgtopo3:node>
  </nmwg:data>
  <nmwg:data id="node 2" metadataIdRef="11">
    <nmwgtopo3:node id="2" xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0/">
      <nmwgtopo3:name>NPD253CISCO</nmwgtopo3:name>
      <nmwgtopol3:ipAddress value="150.162.250.253" xmlns:nmwgtopol3="http://ggf.org/ns/nmwg/topology/l3/3.0"/>
      <nmwgtopo3:status>enable</nmwgtopo3:status>
    </nmwgtopo3:node>
  </nmwg:data>
  <nmwg:data id="node 8" metadataIdRef="11">
    <nmwgtopo3:node id="8" xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0/">
      <nmwgtopo3:name>RT252-PoPSC</nmwgtopo3:name>
      <nmwgtopol3:ipAddress value="200.237.194.252" xmlns:nmwgtopol3="http://ggf.org/ns/nmwg/topology/l3/3.0"/>
      <nmwgtopo3:status>enable</nmwgtopo3:status>
    </nmwgtopo3:node>
  </nmwg:data>
  <nmwg:data id="node 6" metadataIdRef="11">
    <nmwgtopo3:node id="6" xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0/">
      <nmwgtopo3:name>Alpine3804</nmwgtopo3:name>
      <nmwgtopol3:ipAddress value="200.237.194.254" xmlns:nmwgtopol3="http://ggf.org/ns/nmwg/topology/l3/3.0"/>
      <nmwgtopo3:status>enable</nmwgtopo3:status>
    </nmwgtopo3:node>
  </nmwg:data>
  <nmwg:data id="node 4" metadataIdRef="11">
    <nmwgtopo3:node id="4" xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0/">
      <nmwgtopo3:name>NPD251-RS8000</nmwgtopo3:name>
      <nmwgtopol3:ipAddress value="150.162.250.251" xmlns:nmwgtopol3="http://ggf.org/ns/nmwg/topology/l3/3.0"/>
      <nmwgtopo3:status>enable</nmwgtopo3:status>
    </nmwgtopo3:node>
  </nmwg:data>
</nmwg:message>

```

## Request for Node list with detailed node information:

Change the event type from "brief" to "detail"

```

<nmwg:message type="TopologyRequest"
  id="msg1"
  xmlns:nmwg="http://ggf.org/ns/nmwg/base/2.0/"
  xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0/">
<nmwg:metadata id="11">
  <nmwgtopo3:subject id="YYY">
    </nmwgtopo3:subject>
<nmwg:eventType>http://ggf.org/ns/nmwg/topology/actions/node/list/detail</nmwg:eventType>
<nmwgtopo3:parameters id="YYY">
  </nmwgtopo3:parameters>
</nmwg:metadata>
<nmwg:data id="data0" metadataIdRef="11"/>
</nmwg:message>

```

## Request for Network Links information:

Change event type to "<http://ggf.org/ns/nmwg/topology/actions/link/list>"

```

<nmwg:message type="TopologyRequest"
  id="msg1"
  xmlns:nmwg="http://ggf.org/ns/nmwg/base/2.0/"
  xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0/">
<nmwg:metadata id="11">
  <nmwgtopo3:subject id="YYY">
    </nmwgtopo3:subject>
<nmwg:eventType>http://ggf.org/ns/nmwg/topology/actions/link/list</nmwg:eventType>
<nmwgtopo3:parameters id="YYY">
  </nmwgtopo3:parameters>
</nmwg:metadata>
<nmwg:data id="data0" metadataIdRef="11"/>
</nmwg:message>

```

## Response

```

<nmwg:message id="msg1_resp" messageIdRef="msg1" type="TopologyResponse"
  xmlns:nmwg="http://ggf.org/ns/nmwg/base/2.0/">
<nmwg:metadata id="11">
<nmwgtopo3:subject id="YYY"
  xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0/">
<nmwgtopo3:parameters id="YYY"
  xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0/">
<nmwg:eventType>http://ggf.org/ns/nmwg/topology/actions/link/list
</nmwg:eventType>
</nmwg:metadata>
<nmwg:data id="network 47" metadataIdRef="11">
<nmwgtopo13:network
  id="localhost.localdomain.-4b98553d:111e7a1ee3a:-7cde"
  xmlns:nmwgtopo13="http://ggf.org/ns/nmwg/topology/l3/3.0/">
<nmwgtopo13:netmask>255.255.255.0
</nmwgtopo13:netmask>
<nmwgtopo13:subnet>X.Y.93.0
</nmwgtopo13:subnet>
<nmwgtopo14:endPointPair
  xmlns:nmwgtopo14="http://ggf.org/ns/nmwg/topology/l4/3.0/">
<nmwgtopo14:endPoint>
<nmwgtopo3:node id="localhost.localdomain.-4b98553d:111e7a1ee3a:-7c66"
  xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0/">
<nmwgtopo3:name>NPD252CISCO
</nmwgtopo3:name>
<nmwgtopo13:ipAddress value="X.Y.93.252"/>
</nmwgtopo3:node>
</nmwgtopo14:endPoint>
<nmwgtopo14:endPoint>
<nmwgtopo3:node id="localhost.localdomain.-4b98553d:111e7a1ee3a:-7c65"
  xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0/">
<nmwgtopo3:name>NPD253CISCO
</nmwgtopo3:name>
<nmwgtopo13:ipAddress value="X.Y.93.253"/>
</nmwgtopo3:node>

```

```
</nmwgtopol4:endPoint>
</nmwgtopol4:endPointPair>
<nmwgtopol4:endPointPair
xmlns:nmwgtopol4="http://ggf.org/ns/nmwg/topology/l4/3.0/">
<nmwgtopol4:endPoint>
<nmwgtopo3:node id="localhost.localdomain.-4b98553d:111e7a1ee3a:-7c64"
xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0/">
<nmwgtopo3:name>NPD252CISCO
</nmwgtopo3:name>
<nmwgtopol3:ipAddress value="X.Y.93.252"/>
</nmwgtopo3:node>
</nmwgtopol4:endPoint>
<nmwgtopol4:endPoint>
<nmwgtopo3:node id="localhost.localdomain.-4b98553d:111e7a1ee3a:-7c63"
xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0/">
<nmwgtopo3:name>NPD253CISCO
</nmwgtopo3:name>
<nmwgtopol3:ipAddress value="X.Y.93.254"/>
</nmwgtopo3:node>
</nmwgtopol4:endPoint>
</nmwgtopol4:endPointPair>
</nmwgtopol3:network>
</nmwg:data>
<nmwg:data id="network 58" metadataIdRef="11">
<nmwgtopol3:network
id="localhost.localdomain.-4b98553d:111e7a1ee3a:-7cbe"
xmlns:nmwgtopol3="http://ggf.org/ns/nmwg/topology/l3/3.0/">
<nmwgtopol3:netmask>255.255.255.0
</nmwgtopol3:netmask>
<nmwgtopol3:subnet>X.Y.140.0
</nmwgtopol3:subnet>
<nmwgtopol4:endPointPair
xmlns:nmwgtopol4="http://ggf.org/ns/nmwg/topology/l4/3.0/">
<nmwgtopol4:endPoint>
<nmwgtopo3:node id="localhost.localdomain.-4b98553d:111e7a1ee3a:-7c62"
xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0/">
<nmwgtopo3:name>NPD252CISCO
</nmwgtopo3:name>
<nmwgtopol3:ipAddress value="X.Y.140.254"/>
</nmwgtopo3:node>
</nmwgtopol4:endPoint>
<nmwgtopol4:endPoint>
<nmwgtopo3:node id="localhost.localdomain.-4b98553d:111e7a1ee3a:-7c61"
xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0/">
<nmwgtopo3:name>NPD253CISCO
</nmwgtopo3:name>
<nmwgtopol3:ipAddress value="X.Y.140.253"/>
</nmwgtopo3:node>
</nmwgtopol4:endPoint>
</nmwgtopol4:endPointPair>
<nmwgtopol4:endPointPair
xmlns:nmwgtopol4="http://ggf.org/ns/nmwg/topology/l4/3.0/">
<nmwgtopol4:endPoint>
<nmwgtopo3:node id="localhost.localdomain.-4b98553d:111e7a1ee3a:-7c60"
xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0/">
<nmwgtopo3:name>NPD252CISCO
</nmwgtopo3:name>
<nmwgtopol3:ipAddress value="X.Y.140.252"/>
</nmwgtopo3:node>
</nmwgtopol4:endPoint>
<nmwgtopol4:endPoint>
<nmwgtopo3:node id="localhost.localdomain.-4b98553d:111e7a1ee3a:-7c5f"
xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0/">
<nmwgtopo3:name>NPD253CISCO
</nmwgtopo3:name>
<nmwgtopol3:ipAddress value="X.Y.140.253"/>
</nmwgtopo3:node>
</nmwgtopol4:endPoint>
</nmwgtopol4:endPointPair>
</nmwgtopol3:network>
</nmwg:data>
```

```

<nmwg:data id="network 73" metadataIdRef="11">
<nmwgtopol3:network
id="localhost.localdomain.-4b98553d:111e7a1ee3a:-7c91"
xmlns:nmwgtopol3="http://ggf.org/ns/nmwg/topology/l3/3.0/">
<nmwgtopol3:netmask>255.255.255.0
</nmwgtopol3:netmask>
<nmwgtopol3:subnet>X.Y.155.0
</nmwgtopol3:subnet>
<nmwgtopol4:endPointPair
xmlns:nmwgtopol4="http://ggf.org/ns/nmwg/topology/l4/3.0/">
<nmwgtopol4:endPoint>
<nmwgtopo3:node id="localhost.localdomain.-4b98553d:111e7a1ee3a:-7c5e"
xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0/">
<nmwgtopo3:name>NPD252CISCO
</nmwgtopo3:name>
<nmwgtopol3:ipAddress value="X.Y.155.252"/>
</nmwgtopo3:node>
</nmwgtopol4:endPoint>
<nmwgtopol4:endPoint>
<nmwgtopo3:node id="localhost.localdomain.-4b98553d:111e7a1ee3a:-7c5d"
xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0/">
<nmwgtopo3:name>NPD253CISCO
</nmwgtopo3:name>
<nmwgtopol3:ipAddress value="X.Y.155.253"/>
</nmwgtopo3:node>
</nmwgtopol4:endPoint>
</nmwgtopol4:endPointPair>
<nmwgtopol4:endPointPair
xmlns:nmwgtopol4="http://ggf.org/ns/nmwg/topology/l4/3.0/">
<nmwgtopol4:endPoint>
<nmwgtopo3:node id="localhost.localdomain.-4b98553d:111e7a1ee3a:-7c5c"
xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0/">
<nmwgtopo3:name>NPD252CISCO
</nmwgtopo3:name>
<nmwgtopol3:ipAddress value="X.Y.155.254"/>
</nmwgtopo3:node>
</nmwgtopol4:endPoint>
<nmwgtopol4:endPoint>
<nmwgtopo3:node id="localhost.localdomain.-4b98553d:111e7a1ee3a:-7c5b"
xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0/">
<nmwgtopo3:name>NPD253CISCO
</nmwgtopo3:name>
<nmwgtopol3:ipAddress value="X.Y.155.253"/>
</nmwgtopo3:node>
</nmwgtopol4:endPoint>
</nmwgtopol4:endPointPair>
</nmwgtopol3:network>
</nmwg:data>
<nmwg:data id="network 14" metadataIdRef="11">
<nmwgtopol3:network
id="localhost.localdomain.-4b98553d:111e7a1ee3a:-7d48"
xmlns:nmwgtopol3="http://ggf.org/ns/nmwg/topology/l3/3.0/">
<nmwgtopol3:netmask>255.255.255.0
</nmwgtopol3:netmask>
<nmwgtopol3:subnet>X.Y.55.0
</nmwgtopol3:subnet>
<nmwgtopol4:endPointPair
xmlns:nmwgtopol4="http://ggf.org/ns/nmwg/topology/l4/3.0/">
<nmwgtopol4:endPoint>
<nmwgtopo3:node id="localhost.localdomain.-4b98553d:111e7a1ee3a:-7c5a"
xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0/">
<nmwgtopo3:name>NPD252CISCO
</nmwgtopo3:name>
<nmwgtopol3:ipAddress value="X.Y.55.252"/>
</nmwgtopo3:node>
</nmwgtopol4:endPoint>
<nmwgtopol4:endPoint>
<nmwgtopo3:node id="localhost.localdomain.-4b98553d:111e7a1ee3a:-7c59"
xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0/">
<nmwgtopo3:name>NPD253CISCO
</nmwgtopo3:name>

```

```
<nmwgtopol3:ipAddress value="X.Y.55.254"/>
</nmwgtopo3:node>
</nmwgtopol4:endPoint>
</nmwgtopol4:endPointPair>
<nmwgtopol4:endPointPair
xmlns:nmwgtopol4="http://ggf.org/ns/nmwg/topology/l4/3.0/">
<nmwgtopol4:endPoint>
<nmwgtopo3:node id="localhost.localdomain.-4b98553d:111e7a1ee3a:-7c58"
xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0/">
<nmwgtopo3:name>NPD252CISCO
</nmwgtopo3:name>
<nmwgtopol3:ipAddress value="X.Y.55.252"/>
</nmwgtopo3:node>
</nmwgtopol4:endPoint>
<nmwgtopol4:endPoint>
<nmwgtopo3:node id="localhost.localdomain.-4b98553d:111e7a1ee3a:-7c57"
xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0/">
<nmwgtopo3:name>NPD253CISCO
</nmwgtopo3:name>
<nmwgtopol3:ipAddress value="X.Y.55.253"/>
</nmwgtopo3:node>
</nmwgtopol4:endPoint>
</nmwgtopol4:endPointPair>
</nmwgtopol3:network>
</nmwg:data>
<nmwg:data id="network 9" metadataIdRef="11">
<nmwgtopol3:network
id="localhost.localdomain.-4b98553d:111e7a1ee3a:-7d5b"
xmlns:nmwgtopol3="http://ggf.org/ns/nmwg/topology/l3/3.0/">
<nmwgtopol3:netmask>255.255.255.0
</nmwgtopol3:netmask>
<nmwgtopol3:subnet>X.Y.137.0
</nmwgtopol3:subnet>
<nmwgtopol4:endPointPair
xmlns:nmwgtopol4="http://ggf.org/ns/nmwg/topology/l4/3.0/">
<nmwgtopol4:endPoint>
<nmwgtopo3:node id="localhost.localdomain.-4b98553d:111e7a1ee3a:-7c56"
xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0/">
<nmwgtopo3:name>NPD252CISCO
</nmwgtopo3:name>
<nmwgtopol3:ipAddress value="X.Y.137.252"/>
</nmwgtopo3:node>
</nmwgtopol4:endPoint>
<nmwgtopol4:endPoint>
<nmwgtopo3:node id="localhost.localdomain.-4b98553d:111e7a1ee3a:-7c55"
xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0/">
<nmwgtopo3:name>NPD253CISCO
</nmwgtopo3:name>
<nmwgtopol3:ipAddress value="X.Y.137.253"/>
</nmwgtopo3:node>
</nmwgtopol4:endPoint>
</nmwgtopol4:endPointPair>
<nmwgtopol4:endPointPair
xmlns:nmwgtopol4="http://ggf.org/ns/nmwg/topology/l4/3.0/">
<nmwgtopol4:endPoint>
<nmwgtopo3:node id="localhost.localdomain.-4b98553d:111e7a1ee3a:-7c54"
xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0/">
<nmwgtopo3:name>NPD252CISCO
</nmwgtopo3:name>
<nmwgtopol3:ipAddress value="X.Y.137.252"/>
</nmwgtopo3:node>
</nmwgtopol4:endPoint>
<nmwgtopol4:endPoint>
<nmwgtopo3:node id="localhost.localdomain.-4b98553d:111e7a1ee3a:-7c53"
xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0/">
<nmwgtopo3:name>NPD253CISCO
</nmwgtopo3:name>
<nmwgtopol3:ipAddress value="X.Y.137.254"/>
</nmwgtopo3:node>
</nmwgtopol4:endPoint>
</nmwgtopol4:endPointPair>
```

```

</nmwgtopol3:network>
</nmwg:data>
<nmwg:data id="network 4" metadataIdRef="11">
  <nmwgtopol3:network
    id="localhost.localdomain.-4b98553d:111e7a1ee3a:-7d6a"
    xmlns:nmwgtopol3="http://ggf.org/ns/nmwg/topology/l3/3.0/">
    <nmwgtopol3:netmask>255.255.255.0
  </nmwgtopol3:netmask>
  <nmwgtopol3:subnet>X.Y.180.0
</nmwgtopol3:subnet>
  <nmwgtopol4:endPointPair
    xmlns:nmwgtopol4="http://ggf.org/ns/nmwg/topology/l4/3.0/">
    <nmwgtopol4:endPoint>
      <nmwgtopo3:node id="localhost.localdomain.-4b98553d:111e7a1ee3a:-7c52"
        xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0/">
      <nmwgtopo3:name>NPD252CISCO
    </nmwgtopo3:name>
    <nmwgtopol3:ipAddress value="X.Y.180.252"/>
  </nmwgtopo3:node>
</nmwgtopol4:endPoint>
  <nmwgtopol4:endPoint>
    <nmwgtopo3:node id="localhost.localdomain.-4b98553d:111e7a1ee3a:-7c51"
      xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0/">
    <nmwgtopo3:name>NPD253CISCO
  </nmwgtopo3:name>
  <nmwgtopol3:ipAddress value="X.Y.180.253"/>
</nmwgtopo3:node>
</nmwgtopol4:endPoint>
</nmwgtopol4:endPointPair>
</nmwg:message>

```

## Request Mixed info

```

<nmwg:message type="TopologyRequest"
  id="#tops"
  xmlns:nmwg="http://ggf.org/ns/nmwg/base/2.0/"
  xmlns:nmwgtopo3="http://ggf.org/ns/nmwg/topology/base/3.0/">

  <nmwg:metadata id="#meta1">
    <nmwgtopo3:subject id="#subject1"></nmwgtopo3:subject>
    <nmwg:eventType>http://ggf.org/ns/nmwg/topology/actions/list</nmwg:eventType>
    <nmwgtopo3:parameters id="#params1">
      <nmwg:parameter name="include">node, link</nmwg:parameter>
      <nmwg:parameter name="level">detail</nmwg:parameter>
    </nmwgtopo3:parameters>
  </nmwg:metadata>

  <nmwg:data id="#data1" metadataIdRef="#meta1"/>

</nmwg:message>

```