

# Diameter, Configure Vendor and Attribute-Value Pair

## OPERATING INSTRUCTIONS

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# 1 Description

This instruction describes how to configure a Diameter vendor and an Attribute-Value Pair (AVP) for the vendor.

A vendor registers its own Diameter applications, commands, or AVPs not defined by the Internet Engineering Task Force (IETF).

# 2 Procedure

## Prerequisites

- No documents are required.
- No tools are required.
- The following conditions must apply:
  - The settings for the vendor are known.
  - The settings for the AVP are known.

## 2.1 Configure Vendor and Attribute-Value Pair using CLI

### Prerequisites

- An Ericsson Command-Line Interface (ECLI) session in Exec mode is in progress.

### Steps

1. Navigate to the `DIA-CFG-DictionaryContainer` Managed Object (MO), for example:  

```
>dn ManagedElement=NODE06ST,XYZFunction=xyz,DIA-CFG-Application=DIA,DIA-CFG-DictionaryContainer=dictionaryContainerName
```
2. Enter Config mode:  

```
(DIA-CFG-DictionaryContainer=dictionaryContainerName)>configure
```
3. Create the `DIA-CFG-Vendor` MO, for example:  

```
(config-DIA-CFG-DictionaryContainer=dictionaryContainerName)  
>DIA-CFG-Vendor=1
```



4. Set the `diaVendorName` attribute, for example:

```
(config-DIA-CFG-Vendor=1)>diaVendorName="ERICMOB"
```

5. Commit the settings:

```
(config-DIA-CFG-Vendor=1)>commit
```

6. Verify the settings:

```
(DIA-CFG-Vendor=1)>show
```

The following is an example output:

```
DIA-CFG-Vendor=1  
diaVendorName= "ERICMOB"
```

7. Enter Config mode:

```
(DIA-CFG-Vendor=1)>configure
```

8. Create a `DIA-CFG-AvpDef` MO, for example:

```
(config-DIA-CFG-Vendor=1)>DIA-CFG-AvpDef=1:1
```

9. Set the `avpDataType` attribute, for example:

```
(config-DIA-CFG-AvpDef=1:1)>avpDataType=1
```

10. Set the `avpName` attribute, for example:

```
(config-DIA-CFG-AvpDef=1:1)>avpName="DEF"
```

11. Set the `stackIds` attribute, for example:

```
(config-DIA-CFG-AvpDef=1:1)>stackIds="0:StackId0"
```

12. Set the required optional attributes for the `DIA-CFG-AvpDef=1:1` MO.

13. Commit the settings:

```
(config-DIA-CFG-AvpDef=1:1)>commit
```

14. Verify the settings:

```
(DIA-CFG-AvpDef=1:1)>show
```

The following is an example output:

```
DIA-CFG-AvpDef=1:1  
avpDataType="1"  
avpName="DEF"  
stackIds  
"0:StackId0"
```



## 2.2 Configure Vendor and Attribute-Value Pair using NETCONF

1. Prepare an XML file according to the following template to add a Vendor:

```
<?xml version="1.0" encoding="UTF-8"?>
<hello xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
  <capabilities>
    <capability>urn:ietf:params:netconf:base:1.0</capability>
  </capabilities>
</hello>]]>]]>
<rpc message-id="100" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
  <edit-config>
    <target><running/></target>
    <config>
      <ManagedElement xmlns="urn:com:ericsson:ecim:ComTop">
        <managedElementId>1</managedElementId>
        <XYZFunctionBranch>
          <DIA-CFG-Application xmlns="urn:com:ericsson:ecim:dia_mim">
            <applicationName>DIA</applicationName>
            <DIA-CFG-DictionaryContainer>
              <dictionaryContainerName>dictionaryContainerName</dictionaryContainerName>
              <DIA-CFG-Vendor operation="create">
                <diaVendorId><vendorId></diaVendorId>
                <diaVendorName><vendorName></diaVendorName>
              </DIA-CFG-Vendor>
            </DIA-CFG-DictionaryContainer>
          </DIA-CFG-Application>
        </XYZFunctionBranch>
      </ManagedElement>
    </config>
  </edit-config>
</rpc>]]>]]>
<?xml version="1.0" encoding="UTF-8"?>
<rpc message-id="101" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
  <close-session/>
</rpc>]]>]]>
```

**Note:** The XYZFunctionBranch part can be composed of many elements depending on where the Diameter subtree is connected in the managed element structure. In the example below, we assume that the parent MOs are already created and the XYZFunctionBranch is empty.

Example to add a Vendor to the Dictionary:



```
<?xml version="1.0" encoding="UTF-8"?>
<hello xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
  <capabilities>
    <capability>urn:ietf:params:netconf:base:1.0</capability>
  </capabilities>
</hello>]]>]]>
<rpc message-id="100" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
<edit-config>
  <target><running/></target>
  <config>
    <ManagedElement xmlns="urn:com:ericsson:ecim:ComTop">
      <managedElementId>1</managedElementId>
      <DIA-CFG-Application xmlns="urn:com:ericsson:ecim:dia_mim">
        <applicationName>DIA</applicationName>
        <DIA-CFG-DictionaryContainer>
          <dictionaryContainerName>dictionaryContainerName</dictionaryContainerName>
          <DIA-CFG-Vendor operation="create">
            <diaVendorId>193</diaVendorId>
            <diaVendorName>Ericsson</diaVendorName>
          </DIA-CFG-Vendor>
        </DIA-CFG-DictionaryContainer>
      </DIA-CFG-Application>
    </ManagedElement>
  </config>
</edit-config>
</rpc>]]>]]>
<?xml version="1.0" encoding="UTF-8"?>
<rpc message-id="101" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
<close-session/>
</rpc>]]>]]>
```

## 2. Pass the prepared XML file to shell:

```
ssh -p 830 <user_name>@<node_vip_address> -s -t =>
netconf < <xml_file>
```

<xml\_file> refers to the XML file name.

## 3. Prepare an XML file according to the following template to delete a Vendor:

```
<?xml version="1.0" encoding="UTF-8"?>
<hello xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
  <capabilities>
    <capability>urn:ietf:params:netconf:base:1.0</capability>
  </capabilities>
</hello>]]>]]>
<rpc message-id="100" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
<edit-config>
  <target><running/></target>
  <config>
    <ManagedElement xmlns="urn:com:ericsson:ecim:ComTop">
      <managedElementId>1</managedElementId>
      <XYZFunctionBranch>
        <DIA-CFG-Application xmlns="urn:com:ericsson:ecim:dia_mim">
          <applicationName>DIA</applicationName>
          <DIA-CFG-DictionaryContainer>
            <dictionaryContainerName>dictionaryContainerName</dictionaryContainerName>
            <DIA-CFG-Vendor operation="delete">
              <diaVendorId><vendorId></diaVendorId>
            </DIA-CFG-Vendor>
          </DIA-CFG-DictionaryContainer>
        </DIA-CFG-Application>
      </XYZFunctionBranch>
    </ManagedElement>
  </config>
</edit-config>
</rpc>]]>]]>
<?xml version="1.0" encoding="UTF-8"?>
<rpc message-id="101" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
<close-session/>
</rpc>]]>]]>
```





**Note:** The XYZFunctionBranch part can be composed of many elements depending on where the Diameter subtree is connected in the managed element structure. In the example below, we assume that the parent MOs already created and the XYZFunctionBranch is empty.

Example to delete the Vendor from the Dictionary:

```
<?xml version="1.0" encoding="UTF-8"?>
<hello xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
  <capabilities>
    <capability>urn:ietf:params:netconf:base:1.0</capability>
  </capabilities>
</hello>]]>]]>
<rpc message-id="100" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
<edit-config>
  <target><running/></target>
  <config>
    <ManagedElement xmlns="urn:com:ericsson:ecim:ComTop">
      <managedElementId>1</managedElementId>
      <DIA-CFG-Application xmlns="urn:com:ericsson:ecim:dia_mim">
        <applicationName>DIA</applicationName>
        <DIA-CFG-DictionaryContainer>
          <dictionaryContainerName>dictionaryContainerName</dictionaryContainerName>
          <DIA-CFG-Vendor operation="delete">
            <diaVendorId>193</diaVendorId>
          </DIA-CFG-Vendor>
        </DIA-CFG-DictionaryContainer>
      </DIA-CFG-Application>
    </ManagedElement>
  </config>
</edit-config>
</rpc>]]>]]>
<?xml version="1.0" encoding="UTF-8"?>
<rpc message-id="101" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
<close-session/>
</rpc>]]>]]>
```

4. Pass the prepared XML file to shell:

```
ssh -p 830 <user_name>@<node_vip_address> -s -t =>
netconf < <xml_file>
```

<xml\_file> refers to the XML file name.

5. Prepare an XML file according to the following template to add an AVP:



```

<?xml version="1.0" encoding="UTF-8"?>
<hello xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
  <capabilities>
    <capability>urn:ietf:params:netconf:base:1.0</capability>
  </capabilities>
</hello>]]>]]>
<rpc message-id="100" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
<edit-config>
  <target><running/></target>
  <config>
    <ManagedElement xmlns="urn:com:ericsson:ecim:ComTop">
      <managedElementId>1</managedElementId>
      <XYZFunctionBranch>
        <DIA-CFG-Application xmlns="urn:com:ericsson:ecim:dia_mim">
          <applicationName>DIA</applicationName>
          <DIA-CFG-DictionaryContainer>
            <dictionaryContainerName>dictionaryContainerName</dictionaryContainerName>
            <DIA-CFG-Vendor>
              <diaVendorId><vendorId></diaVendorId>
              <DIA-CFG-AvpDef operation="create">
                <avpId><avpId></avpId>
                <avpName><avpName></avpName>
                <stackIds><stackIds></stackIds>
                <avpDataType><avpDataType></avpDataType>
              </DIA-CFG-AvpDef>
            </DIA-CFG-Vendor>
          </DIA-CFG-DictionaryContainer>
        </DIA-CFG-Application>
      </XYZFunctionBranch>
    </ManagedElement>
  </config>
</edit-config>
</rpc>]]>]]>
<?xml version="1.0" encoding="UTF-8"?>
<rpc message-id="101" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
<close-session/>
</rpc>]]>]]>

```

**Note:** The XYZFunctionBranch part can be composed of many elements depending on where the Diameter subtree is connected in the managed element structure. In the example below, we assume that the parent MOs already created and the XYZFunctionBranch is empty.

Example to add an AVP:



```
<?xml version="1.0" encoding="UTF-8"?>
<hello xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
  <capabilities>
    <capability>urn:ietf:params:netconf:base:1.0</capability>
  </capabilities>
</hello>]]>]]>
<rpc message-id="100" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
  <edit-config>
    <target><running/></target>
    <config>
      <ManagedElement xmlns="urn:com:ericsson:ecim:ComTop">
        <managedElementId>1</managedElementId>
        <DIA-CFG-Application xmlns="urn:com:ericsson:ecim:dia_mim">
          <applicationName>DIA</applicationName>
          <DIA-CFG-DictionaryContainer>
            <dictionaryContainerName>dictionaryContainerName</dictionaryContainerName>
            <DIA-CFG-Vendor>
              <diaVendorId>0</diaVendorId>
              <DIA-CFG-AvpDef operation="create">
                <avpId>0:297</avpId>
                <avpName>Experimental-Result</avpName>
                <stackIds>0:TST_CLI</stackIds>
                <stackIds>1:TST_SRV</stackIds>
                <avpDataType>8</avpDataType>
              </DIA-CFG-AvpDef>
            </DIA-CFG-Vendor>
          </DIA-CFG-DictionaryContainer>
        </DIA-CFG-Application>
      </ManagedElement>
    </config>
  </edit-config>
</rpc>]]>]]>
<?xml version="1.0" encoding="UTF-8"?>
<rpc message-id="101" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
  <close-session/>
</rpc>]]>]]>
```

6. Pass the prepared XML file to shell:

```
ssh -p 830 <user_name>@<node_vip_address> -s -t =>
netconf < <xml_file>
```

<xml\_file> refers to the XML file name.

7. Prepare an XML file according to the following template to modify AVP Attributes:



```
<?xml version="1.0" encoding="UTF-8"?>
<hello xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
  <capabilities>
    <capability>urn:ietf:params:netconf:base:1.0</capability>
  </capabilities>
</hello>]]>]]>
<rpc message-id="100" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
  <edit-config>
    <target><running/></target>
    <config>
      <ManagedElement xmlns="urn:com:ericsson:ecim:ComTop">
        <managedElementId>1</managedElementId>
        <XYZFunctionBranch>
          <DIA-CFG-Application xmlns="urn:com:ericsson:ecim:dia_mim">
            <applicationName>DIA</applicationName>
            <DIA-CFG-DictionaryContainer>
              <dictionaryContainerName>dictionaryContainerName</dictionaryContainerName>
              <DIA-CFG-Vendor>
                <diaVendorId><vendorId></diaVendorId>
                <DIA-CFG-AvpDef operation="replace">
                  <avpId><avpId></avpId>
                  <stackIds><stackIds></stackIds>
                  <groupedAvpList><groupedAvpList></groupedAvpList>
                  <integerValueList><integerValueList></integerValueList>
                  <mFlagRule><mFlagRule></mFlagRule>
                  <pFlagRule><pFlagRule></pFlagRule>
                </DIA-CFG-AvpDef>
              </DIA-CFG-Vendor>
            </DIA-CFG-DictionaryContainer>
          </DIA-CFG-Application>
        </XYZFunctionBranch>
      </ManagedElement>
    </config>
  </edit-config>
</rpc>]]>]]>
<?xml version="1.0" encoding="UTF-8"?>
<rpc message-id="101" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
  <close-session/>
</rpc>]]>]]>
```

**Note:** The XYZFunctionBranch part can be composed of many elements depending on where the Diameter subtree is connected in the managed element structure. In the example below, we assume that the parent MOs already created and the XYZFunctionBranch is empty.

Example to modify the Attributes of the AVP:



```
<?xml version="1.0" encoding="UTF-8"?>
<hello xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
  <capabilities>
    <capability>urn:ietf:params:netconf:base:1.0</capability>
  </capabilities>
</hello>]]>]]>
<rpc message-id="100" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
  <edit-config>
    <target><running/></target>
    <config>
      <ManagedElement xmlns="urn:com:ericsson:ecim:ComTop">
        <managedElementId>1</managedElementId>
        <DIA-CFG-Application xmlns="urn:com:ericsson:ecim:dia_mim">
          <applicationName>DIA</applicationName>
          <DIA-CFG-DictionaryContainer>
            <dictionaryContainerName>dictionaryContainerName</dictionaryContainerName>
            <DIA-CFG-Vendor>
              <diaVendorId>0</diaVendorId>
              <DIA-CFG-AvpDef operation="replace">
                <avpId>0:297</avpId>
                <stackIds>0:TST_CLI1</stackIds>
                <stackIds>1:TST_SRV1</stackIds>
                <groupedAvpList>0:0\\:266:1:1</groupedAvpList>
                <groupedAvpList>1:0\\:298:1:1</groupedAvpList>
                <mFlagRule>0</mFlagRule>
                <pFlagRule>1</pFlagRule>
              </DIA-CFG-AvpDef>
            </DIA-CFG-Vendor>
          </DIA-CFG-DictionaryContainer>
        </DIA-CFG-Application>
      </ManagedElement>
    </config>
  </edit-config>
</rpc>]]>]]>
<?xml version="1.0" encoding="UTF-8"?>
<rpc message-id="101" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
  <close-session/>
</rpc>]]>]]>
```

8. Pass the prepared XML file to shell:

```
ssh -p 830 <user_name>@<node_vip_address> -s -t =>
netconf < <xml_file>
```

<xml\_file> refers to the XML file name.

9. Prepare an XML file according the following template to delete the AVP:



```
<?xml version="1.0" encoding="UTF-8"?>
<hello xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
  <capabilities>
    <capability>urn:ietf:params:netconf:base:1.0</capability>
  </capabilities>
</hello>]]>]]>
<rpc message-id="100" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
  <edit-config>
    <target><running/></target>
    <config>
      <ManagedElement xmlns="urn:com:ericsson:ecim:ComTop">
        <managedElementId>1</managedElementId>
        <XYZFunctionBranch>
          <DIA-CFG-Application xmlns="urn:com:ericsson:ecim:dia_mim">
            <applicationName>DIA</applicationName>
            <DIA-CFG-DictionaryContainer>
              <dictionaryContainerName>dictionaryContainerName</dictionaryContainerName>
              <DIA-CFG-Vendor>
                <diaVendorId><vendorId></diaVendorId>
                <DIA-CFG-AvpDef operation="delete">
                  <avpId><avpId></avpId>
                </DIA-CFG-AvpDef>
              </DIA-CFG-Vendor>
            </DIA-CFG-DictionaryContainer>
          </DIA-CFG-Application>
        </XYZFunctionBranch>
      </ManagedElement>
    </config>
  </edit-config>
</rpc>]]>]]>
<?xml version="1.0" encoding="UTF-8"?>
<rpc message-id="101" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
  <close-session/>
</rpc>]]>]]>
```

**Note:** The XYZFunctionBranch part can be composed of many elements depending on where the Diameter subtree is connected in the managed element structure. In the example below, we assume that the parent MOs are already created and the XYZFunctionBranch is empty.

Example to delete the AVP:



```
<?xml version="1.0" encoding="UTF-8"?>
<hello xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
  <capabilities>
    <capability>urn:ietf:params:netconf:base:1.0</capability>
  </capabilities>
</hello>]]>]]>
<rpc message-id="100" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
  <edit-config>
    <target><running/></target>
    <config>
      <ManagedElement xmlns="urn:com:ericsson:ecim:ComTop">
        <managedElementId>1</managedElementId>
        <DIA-CFG-Application xmlns="urn:com:ericsson:ecim:dia_mim">
          <applicationName>DIA</applicationName>
          <DIA-CFG-DictionaryContainer>
            <dictionaryContainerName>dictionaryContainerName</dictionaryContainerName>
            <DIA-CFG-Vendor>
              <diaVendorId>0</diaVendorId>
              <DIA-CFG-AvpDef operation="delete">
                <avpId>0:20016</avpId>
              </DIA-CFG-AvpDef>
            </DIA-CFG-Vendor>
          </DIA-CFG-DictionaryContainer>
        </DIA-CFG-Application>
      </ManagedElement>
    </config>
  </edit-config>
</rpc>]]>]]>
<?xml version="1.0" encoding="UTF-8"?>
<rpc message-id="101" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
  <close-session/>
</rpc>]]>]]>
```

10. Pass the prepared XML file to shell:

```
ssh -p 830 <user_name>@<node_vip_address> -s -t =>
netconf < <xml_file>
```

<xml\_file> refers to the XML file name.

11. Prepare an XML file according the following template to delete the Vendor:



```

<?xml version="1.0" encoding="UTF-8"?>
<hello xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
  <capabilities>
    <capability>urn:ietf:params:netconf:base:1.0</capability>
  </capabilities>
</hello>]]>]]>
<rpc message-id="100" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
  <edit-config>
    <target><running/></target>
    <config>
      <ManagedElement xmlns="urn:com:ericsson:ecim:ComTop">
        <managedElementId>1</managedElementId>
        <XYZFunctionBranch>
          <DIA-CFG-Application xmlns="urn:com:ericsson:ecim:dia_mim">
            <applicationName>DIA</applicationName>
            <DIA-CFG-DictionaryContainer>
              <dictionaryContainerName>dictionaryContainerName</dictionaryContainerName>
              <DIA-CFG-Vendor operation="delete">
                <diaVendorId><vendorId></diaVendorId>
              </DIA-CFG-Vendor>
            </DIA-CFG-DictionaryContainer>
          </DIA-CFG-Application>
        </XYZFunctionBranch>
      </ManagedElement>
    </config>
  </edit-config>
</rpc>]]>]]>
<?xml version="1.0" encoding="UTF-8"?>
<rpc message-id="101" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
<close-session/>
</rpc>]]>]]>

```

**Note:** The XYZFunctionBranch part can be composed of many elements depending on where the Diameter subtree is connected in the managed element structure. In the example below, we assume that the parent MOs are already created and the XYZFunctionBranch is empty.

Example to delete the Vendor from the Dictionary:

```

<?xml version="1.0" encoding="UTF-8"?>
<hello xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
  <capabilities>
    <capability>urn:ietf:params:netconf:base:1.0</capability>
  </capabilities>
</hello>]]>]]>
<rpc message-id="100" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
  <edit-config>
    <target><running/></target>
    <config>
      <ManagedElement xmlns="urn:com:ericsson:ecim:ComTop">
        <managedElementId>1</managedElementId>
        <DIA-CFG-Application xmlns="urn:com:ericsson:ecim:dia_mim">
          <applicationName>DIA</applicationName>
          <DIA-CFG-DictionaryContainer>
            <dictionaryContainerName>dictionaryContainerName</dictionaryContainerName>
            <DIA-CFG-Vendor operation="delete">
              <diaVendorId>193</diaVendorId>
            </DIA-CFG-Vendor>
          </DIA-CFG-DictionaryContainer>
        </DIA-CFG-Application>
      </ManagedElement>
    </config>
  </edit-config>
</rpc>]]>]]>
<?xml version="1.0" encoding="UTF-8"?>
<rpc message-id="101" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
<close-session/>
</rpc>]]>]]>

```

12. Pass the prepared XML file to shell:





```
ssh -p 830 <user_name>@<node_vip_address> -s -t =>  
netconf < <xml_file>
```

<xml\_file> refers to the XML file name.