



CHAPTER 9

FlexUNI/EVC Provisioning

This chapter describes the provisioning support for FlexUNI/EVC (flexible user network interface/Ethernet Virtual Circuit) provided in IP Solution Center (ISC).

The following FlexUNI/EVC support is available:

- Allow the “service designers” plan the services that are specific to the services offered through a new type of policy – “EVC Policy”. This single policy will be flexible enough to cater to different service offerings using EVC architecture
- Allow service designers to utilize most of the EVC features in a flexible manner, nearly matching the hardware/platform flexibilities
- Allow operators deploy services as per the EVC policies created by creating Service Requests (SRs).

Note that CE devices are not supported.

To provision FlexUNI/EVC using the ISC API, you need a FlexUNI/EVC service definition and a FlexUNI/EVC service request. The service definition specifies the core type, policy subtype, and common device properties. The service request defines the service definition to use, VPNs, attributes for each interface in the FlexUNI/EVC link, and template information.

This chapter describes FlexUNI/EVC service concepts and the steps required to provision FlexUNI/EVC services using the ISC API. The provisioning example includes all steps from creating the inventory to auditing the service deployment.

For a detailed description of supported FlexUNI/EVC features, platform support, policy attribute definitions, GUI implementation, and other information, see the [Cisco IP Solution Center Carrier Ethernet and L2VPN User Guide, 5.1](#).

This chapter contains the following sections:

- [FlexUNI/EVC Service Definitions, page 9-1](#)
- [FlexUNI/EVC Service Requests, page 9-14](#)
- [End-to-End Provisioning Process, page 9-39](#)

FlexUNI/EVC Service Definitions

A FlexUNI/EVC service definition specifies the core type, policy subtype, and the attributes common to all EVC attachment circuits.

This section lists the supported service definitions, service orders, and policies and includes corresponding examples.

To provision FlexUNI/EVC using ISC API, an EVC service policy and an EVC service request are required and only one subtype will be defined and of type EVC.

The EVC service policy/service definition specifies the attributes related to the end-to-end EVC links and non-flexuni/EVC links. The service request defines the device interfaces for each EVC/non-EVC link connection and can optionally override policy attributes in each of the corresponding links.

When you deploy an EVC service request using a service order, the attributes specified in the service definition are applied to the devices and interfaces listed in the service request, along with the attributes for each of the EVC/non-EVC links.

Supported Service Definitions and Service Orders

ISC supports the following FlexUNI/EVC features:

- Creating:
 - EVC Service Definition/Policy
 - EVC Service Order/Request
- Modifying:
 - EVC Service Definition
 - EVC Service Order/Request
- Deleting:
 - EVC Service Definition/Policy
 - EVC Service Order/Request
- Viewing:
 - EVC Service Definition
 - EVC Service Request

The above operations are supported for policies and service requests, which are created to provision a variety of network configurations.

Template-based support is available for EVC Policy and service requests.

MPLS Core Connectivity Types

There are three MPLS core connectivity types:

- PSEUDOWIRE—Allows connectivity between two N-PEs across the MPLS core.

This option does not limit the service to point-to-point (E-Line). This is because even with the PSEUDOWIRE option selected, multiple CEs can still be connected to a bridge domain on one or both sides of the pseudowire.
- VPLS—Allows connectivity between multiple N-PEs across the MPLS core.

There is no limit on the number of N-PEs across the MPLS core within a service request. However, many service requests can refer to the same customer-associated VPN.
- LOCAL—For local connect cases in which no connectivity is required across the MPLS core.

In the following, policy examples are given for each of these connectivity types.

Policy Examples

The following constitute XML policy examples for the three connectivity types that are supported across the MPLS core:

- [Local Connect Policy, page 9-3](#)
- [Pseudowire Policy, page 9-7](#)
- [VPLS Policy, page 9-10](#)

Local Connect Policy

In this example, a FlexUNI/EVC policy is created using local connect.

```
<?xml version="1.0" encoding="UTF-8"?>
<soapenv:Envelope
  xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:ns0="http://www.cisco.com/cim-cx/2.0"
  xmlns:ns1="urn:CIM">
  <soapenv:Header>
    <ns0:message id="87855" timestamp="2002-12-13T14:55:38.885Z"
      sessiontoken="p36bttjwy1"/>
  </soapenv:Header>
  <soapenv:Body>
    <ns1:createInstance>
      <objectPath xsi:type="ns1:CIMObjectPath">
        <className xsi:type="xsd:string">ServiceDefinition</className>
        <properties xsi:type="ns1:CIMPropertyList"
          soapenc:arrayType="ns1:CIMProperty[]">
          <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">Name</name>
            <value xsi:type="xsd:string">doc_local</value>
          </item>
          <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">Type</name>
            <value xsi:type="xsd:string">Evc</value>
          </item>
        </properties>
      <objectPath xsi:type="ns1:CIMObjectPath">
        <className xsi:type="xsd:string">ServiceDefinitionDetails</className>
        <properties xsi:type="ns1:CIMPropertyList"
          soapenc:arrayType="ns1:CIMProperty[]">
          <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">SubType</name>
            <value xsi:type="xsd:string">Evc</value>
          </item>
          <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">AccessType</name>
            <value xsi:type="xsd:string">ETHERNET</value>
          </item>
          <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">TransportType</name>
            <value xsi:type="xsd:string">LOCAL</value>
          </item>
          <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">UniShutdown</name>
            <value xsi:type="xsd:string">true</value>
          </item>
        </properties>
      </objectPath>
    </ns1:createInstance>
  </soapenv:Body>
</soapenv:Envelope>
```

```

    <qualifier xsi:type="ns1:CIMQualifier">
      <name xsi:type="xsd:string">editable</name>
      <value xsi:type="xsd:string">true</value>
    </qualifier>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">PortSecurity</name>
    <value xsi:type="xsd:string">>false</value>
    <qualifier xsi:type="ns1:CIMQualifier">
      <name xsi:type="xsd:string">editable</name>
      <value xsi:type="xsd:string">true</value>
    </qualifier>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">UniProtocolTunneling</name>
    <value xsi:type="xsd:string">>false</value>
    <qualifier xsi:type="ns1:CIMQualifier">
      <name xsi:type="xsd:string">editable</name>
      <value xsi:type="xsd:string">true</value>
    </qualifier>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">StdUniPort</name>
    <value xsi:type="xsd:string">>true</value>
    <qualifier xsi:type="ns1:CIMQualifier">
      <name xsi:type="xsd:string">editable</name>
      <value xsi:type="xsd:string">true</value>
    </qualifier>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">UniKeepAlive</name>
    <value xsi:type="xsd:string">>false</value>
    <qualifier xsi:type="ns1:CIMQualifier">
      <name xsi:type="xsd:string">editable</name>
      <value xsi:type="xsd:string">true</value>
    </qualifier>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">UniShutdown</name>
    <value xsi:type="xsd:string">>false</value>
    <qualifier xsi:type="ns1:CIMQualifier">
      <name xsi:type="xsd:string">editable</name>
      <value xsi:type="xsd:string">true</value>
    </qualifier>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">UniSpeed</name>
    <value xsi:type="xsd:string">100</value>
    <qualifier xsi:type="ns1:CIMQualifier">
      <name xsi:type="xsd:string">editable</name>
      <value xsi:type="xsd:string">true</value>
    </qualifier>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">UniDuplex</name>
    <value xsi:type="xsd:string">Half</value>
    <qualifier xsi:type="ns1:CIMQualifier">
      <name xsi:type="xsd:string">editable</name>
      <value xsi:type="xsd:string">true</value>
    </qualifier>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">UseExistingACLName</name>
    <value xsi:type="xsd:string">>false</value>

```

```

</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">VlanTranslationType</name>
  <value xsi:type="xsd:string">NONE</value>
  <qualifier xsi:type="ns1:CIMQualifier">
    <name xsi:type="xsd:string">editable</name>
    <value xsi:type="xsd:string">>true</value>
  </qualifier>
</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">VlanTranslationNode</name>
  <value xsi:type="xsd:string">AUTO</value>
  <qualifier xsi:type="ns1:CIMQualifier">
    <name xsi:type="xsd:string">editable</name>
    <value xsi:type="xsd:string">>true</value>
  </qualifier>
</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">DirectConnect</name>
  <value xsi:type="xsd:string">>false</value>

</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">AutoPickEsiId</name>
  <value xsi:type="xsd:string">>false</value>
  <qualifier xsi:type="ns1:CIMQualifier">
    <name xsi:type="xsd:string">editable</name>
    <value xsi:type="xsd:string">>true</value>
  </qualifier>
</item>

<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">AutopickVCId</name>
  <value xsi:type="xsd:string">>false</value>
  <qualifier xsi:type="ns1:CIMQualifier">
    <name xsi:type="xsd:string">editable</name>
    <value xsi:type="xsd:string">>true</value>
  </qualifier>
</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">AutoPickBDVlanId</name>
  <value xsi:type="xsd:string">>false</value>
  <qualifier xsi:type="ns1:CIMQualifier">
    <name xsi:type="xsd:string">editable</name>
    <value xsi:type="xsd:string">>true</value>
  </qualifier>
</item>

<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">EnablePWRedundancy</name>
  <value xsi:type="xsd:string">>false</value>
  <qualifier xsi:type="ns1:CIMQualifier">
    <name xsi:type="xsd:string">editable</name>
    <value xsi:type="xsd:string">>true</value>
  </qualifier>
</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">AutopickVCId</name>
  <value xsi:type="xsd:string">>false</value>
  <qualifier xsi:type="ns1:CIMQualifier">
    <name xsi:type="xsd:string">editable</name>
    <value xsi:type="xsd:string">>true</value>
  </qualifier>

```

```

</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">AllowBothTags</name>
  <value xsi:type="xsd:string">>false</value>
  <qualifier xsi:type="ns1:CIMQualifier">
    <name xsi:type="xsd:string">editable</name>
    <value xsi:type="xsd:string">>true</value>
  </qualifier>
</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">PushOuter</name>
  <value xsi:type="xsd:string">>false</value>
  <qualifier xsi:type="ns1:CIMQualifier">
    <name xsi:type="xsd:string">editable</name>
    <value xsi:type="xsd:string">>true</value>
  </qualifier>
</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">PushInner</name>
  <value xsi:type="xsd:string">>false</value>
  <qualifier xsi:type="ns1:CIMQualifier">
    <name xsi:type="xsd:string">editable</name>
    <value xsi:type="xsd:string">>true</value>
  </qualifier>
</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">PopOuter</name>
  <value xsi:type="xsd:string">>false</value>
  <qualifier xsi:type="ns1:CIMQualifier">
    <name xsi:type="xsd:string">editable</name>
    <value xsi:type="xsd:string">>true</value>
  </qualifier>
</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">PopInner</name>
  <value xsi:type="xsd:string">>false</value>
  <qualifier xsi:type="ns1:CIMQualifier">
    <name xsi:type="xsd:string">editable</name>
    <value xsi:type="xsd:string">>true</value>
  </qualifier>
</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">TranslateInner</name>
  <value xsi:type="xsd:string">>false</value>
  <qualifier xsi:type="ns1:CIMQualifier">
    <name xsi:type="xsd:string">editable</name>
    <value xsi:type="xsd:string">>true</value>
  </qualifier>
</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">TranslateOuter</name>
  <value xsi:type="xsd:string">>false</value>
  <qualifier xsi:type="ns1:CIMQualifier">
    <name xsi:type="xsd:string">editable</name>
    <value xsi:type="xsd:string">>true</value>
  </qualifier>
</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">UseEVC</name>
  <value xsi:type="xsd:string">>false</value>
</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">UseBD</name>

```

```

        <value xsi:type="xsd:string">true</value>
        <qualifier xsi:type="ns1:CIMQualifier">
            <name xsi:type="xsd:string">editable</name>
            <value xsi:type="xsd:string">true</value>
        </qualifier>
    </item>
    <item xsi:type="ns1:CIMProperty">
        <name xsi:type="xsd:string">EncapsulationType</name>
        <value xsi:type="xsd:string">DOT1QTRUNK</value>
        <qualifier xsi:type="ns1:CIMQualifier">
            <name xsi:type="xsd:string">editable</name>
            <value xsi:type="xsd:string">true</value>
        </qualifier>
    </item>
</properties>
</objectPath>
</objectPath>
</ns1:createInstance>
</soapenv:Body>
</soapenv:Envelope>

```

Pseudowire Policy

In this example, a FlexUNI/EVC policy is created using pseudowire.

```

<?xml version="1.0" encoding="UTF-8"?>
<soapenv:Envelope
  xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:ns0="http://www.cisco.com/cim-cx/2.0"
  xmlns:ns1="urn:CIM">
  <soapenv:Header>
    <ns0:message id="87855" timestamp="2002-12-13T14:55:38.885Z"
      sessiontoken="p36bttjwy1"/>
  </soapenv:Header>
  <soapenv:Body>
    <ns1:createInstance>
      <objectPath xsi:type="ns1:CIMObjectPath">
        <className xsi:type="xsd:string">ServiceDefinition</className>
        <properties xsi:type="ns1:CIMPropertyList"
          soapenc:arrayType="ns1:CIMProperty[]">
          <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">Name</name>
            <value xsi:type="xsd:string">doc_pw</value>
          </item>
          <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">Type</name>
            <value xsi:type="xsd:string">Evc</value>
          </item>
        </properties>
      <objectPath xsi:type="ns1:CIMObjectPath">
        <className xsi:type="xsd:string">ServiceDefinitionDetails</className>
        <properties xsi:type="ns1:CIMPropertyList"
          soapenc:arrayType="ns1:CIMProperty[]">
          <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">SubType</name>
            <value xsi:type="xsd:string">Evc</value>
          </item>
        </properties>
      </objectPath>
    </ns1:createInstance>
  </soapenv:Body>
</soapenv:Envelope>

```

```

<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">AccessType</name>
  <value xsi:type="xsd:string">ETHERNET</value>
</item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">TransportType</name>
    <value xsi:type="xsd:string">PSEUDOWIRE</value>
  </item>

  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">StdUniPort</name>
    <value xsi:type="xsd:string">true</value>
    <qualifier xsi:type="ns1:CIMQualifier">
      <name xsi:type="xsd:string">editable</name>
      <value xsi:type="xsd:string">true</value>
    </qualifier>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">UniShutdown</name>
    <value xsi:type="xsd:string">false</value>
    <qualifier xsi:type="ns1:CIMQualifier">
      <name xsi:type="xsd:string">editable</name>
      <value xsi:type="xsd:string">true</value>
    </qualifier>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">DirectConnect</name>
    <value xsi:type="xsd:string">false</value>

  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">AutoPickEsiId</name>
    <value xsi:type="xsd:string">true</value>
    <qualifier xsi:type="ns1:CIMQualifier">
      <name xsi:type="xsd:string">editable</name>
      <value xsi:type="xsd:string">true</value>
    </qualifier>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">AutopickVCId</name>
    <value xsi:type="xsd:string">true</value>
    <qualifier xsi:type="ns1:CIMQualifier">
      <name xsi:type="xsd:string">editable</name>
      <value xsi:type="xsd:string">true</value>
    </qualifier>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">AutoPickBDVlanId</name>
    <value xsi:type="xsd:string">true</value>
    <qualifier xsi:type="ns1:CIMQualifier">
      <name xsi:type="xsd:string">editable</name>
      <value xsi:type="xsd:string">true</value>
    </qualifier>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">EnablePWRedundancy</name>
    <value xsi:type="xsd:string">false</value>
    <qualifier xsi:type="ns1:CIMQualifier">
      <name xsi:type="xsd:string">editable</name>
      <value xsi:type="xsd:string">true</value>
    </qualifier>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">PwTunnelSelection</name>

```

```

    <value xsi:type="xsd:string">>false</value>
    <qualifier xsi:type="ns1:CIMQualifier">
      <name xsi:type="xsd:string">editable</name>
      <value xsi:type="xsd:string">>true</value>
    </qualifier>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">AutopickVCID</name>
    <value xsi:type="xsd:string">>false</value>
    <qualifier xsi:type="ns1:CIMQualifier">
      <name xsi:type="xsd:string">editable</name>
      <value xsi:type="xsd:string">>true</value>
    </qualifier>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">AllowBothTags</name>
    <value xsi:type="xsd:string">>false</value>
    <qualifier xsi:type="ns1:CIMQualifier">
      <name xsi:type="xsd:string">editable</name>
      <value xsi:type="xsd:string">>true</value>
    </qualifier>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">PushOuter</name>
    <value xsi:type="xsd:string">>false</value>
    <qualifier xsi:type="ns1:CIMQualifier">
      <name xsi:type="xsd:string">editable</name>
      <value xsi:type="xsd:string">>true</value>
    </qualifier>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">PushInner</name>
    <value xsi:type="xsd:string">>false</value>
    <qualifier xsi:type="ns1:CIMQualifier">
      <name xsi:type="xsd:string">editable</name>
      <value xsi:type="xsd:string">>true</value>
    </qualifier>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">PopOuter</name>
    <value xsi:type="xsd:string">>false</value>
    <qualifier xsi:type="ns1:CIMQualifier">
      <name xsi:type="xsd:string">editable</name>
      <value xsi:type="xsd:string">>true</value>
    </qualifier>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">PopInner</name>
    <value xsi:type="xsd:string">>false</value>
    <qualifier xsi:type="ns1:CIMQualifier">
      <name xsi:type="xsd:string">editable</name>
      <value xsi:type="xsd:string">>true</value>
    </qualifier>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">TranslateInner</name>
    <value xsi:type="xsd:string">>false</value>
    <qualifier xsi:type="ns1:CIMQualifier">
      <name xsi:type="xsd:string">editable</name>
      <value xsi:type="xsd:string">>true</value>
    </qualifier>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">TranslateOuter</name>

```

```

        <value xsi:type="xsd:string">false</value>
        <qualifier xsi:type="ns1:CIMQualifier">
            <name xsi:type="xsd:string">editable</name>
            <value xsi:type="xsd:string">true</value>
        </qualifier>
    </item>
    <item xsi:type="ns1:CIMProperty">
        <name xsi:type="xsd:string">UseEVC</name>
        <value xsi:type="xsd:string">false</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
        <name xsi:type="xsd:string">UseBD</name>
        <value xsi:type="xsd:string">true</value>
        <qualifier xsi:type="ns1:CIMQualifier">
            <name xsi:type="xsd:string">editable</name>
            <value xsi:type="xsd:string">true</value>
        </qualifier>
    </item>
    <item xsi:type="ns1:CIMProperty">
        <name xsi:type="xsd:string">EncapsulationType</name>
        <value xsi:type="xsd:string">DOT1QTRUNK</value>
        <qualifier xsi:type="ns1:CIMQualifier">
            <name xsi:type="xsd:string">editable</name>
            <value xsi:type="xsd:string">true</value>
        </qualifier>
    </item>
</properties>
</objectPath>
</objectPath>
</ns1:createInstance>
</soapenv:Body>
</soapenv:Envelope>

```

VPLS Policy

In this example, a FlexUNI/EVC policy is created using VPLS.

```

<?xml version="1.0" encoding="UTF-8" ?>
<soapenv:Envelope
  xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:ns0="http://www.cisco.com/cim-cx/2.0"
  xmlns:ns1="urn:CIM">
  <soapenv:Header>
    <ns0:message id="87855" timestamp="2002-12-13T14:55:38.885Z"
      sessiontoken="p36bttjwy1" />
  </soapenv:Header>
  <soapenv:Body>
    <ns1:createInstance>
      <objectPath xsi:type="ns1:CIMObjectPath">
        <className xsi:type="xsd:string">ServiceDefinition</className>
        <properties xsi:type="ns1:CIMPropertyList"
          soapenc:arrayType="ns1:CIMProperty[]">
          <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">Name</name>
            <value xsi:type="xsd:string">doc_vpls</value>
          </item>

```

```

<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">Type</name>
  <value xsi:type="xsd:string">Evc</value>
</item>
</properties>
<objectPath xsi:type="ns1:CIMObjectPath">
  <className xsi:type="xsd:string">ServiceDefinitionDetails</className>
  <properties xsi:type="ns1:CIMPropertyList"
    soapenc:arrayType="ns1:CIMProperty[]">
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">SubType</name>
      <value xsi:type="xsd:string">Evc</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">AccessType</name>
      <value xsi:type="xsd:string">ETHERNET</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">TransportType</name>
      <value xsi:type="xsd:string">VPLS</value>
    </item>

    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">PortSecurity</name>
      <value xsi:type="xsd:string">>false</value>
      <qualifier xsi:type="ns1:CIMQualifier">
        <name xsi:type="xsd:string">editable</name>
        <value xsi:type="xsd:string">>true</value>
      </qualifier>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">UniProtocolTunneling</name>
      <value xsi:type="xsd:string">>false</value>
      <qualifier xsi:type="ns1:CIMQualifier">
        <name xsi:type="xsd:string">editable</name>
        <value xsi:type="xsd:string">>true</value>
      </qualifier>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">StdUniPort</name>
      <value xsi:type="xsd:string">>true</value>
      <qualifier xsi:type="ns1:CIMQualifier">
        <name xsi:type="xsd:string">editable</name>
        <value xsi:type="xsd:string">>true</value>
      </qualifier>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">UniKeepAlive</name>
      <value xsi:type="xsd:string">>false</value>
      <qualifier xsi:type="ns1:CIMQualifier">
        <name xsi:type="xsd:string">editable</name>
        <value xsi:type="xsd:string">>true</value>
      </qualifier>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">UniShutdown</name>
      <value xsi:type="xsd:string">>false</value>
      <qualifier xsi:type="ns1:CIMQualifier">
        <name xsi:type="xsd:string">editable</name>
        <value xsi:type="xsd:string">>true</value>
      </qualifier>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">UniSpeed</name>

```

```

    <value xsi:type="xsd:string">100</value>
    <qualifier xsi:type="ns1:CIMQualifier">
      <name xsi:type="xsd:string">editable</name>
      <value xsi:type="xsd:string">true</value>
    </qualifier>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">UniDuplex</name>
    <value xsi:type="xsd:string">Half</value>
    <qualifier xsi:type="ns1:CIMQualifier">
      <name xsi:type="xsd:string">editable</name>
      <value xsi:type="xsd:string">true</value>
    </qualifier>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">UseExistingACLName</name>
    <value xsi:type="xsd:string">>false</value>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">VlanTranslationType</name>
    <value xsi:type="xsd:string">NONE</value>
    <qualifier xsi:type="ns1:CIMQualifier">
      <name xsi:type="xsd:string">editable</name>
      <value xsi:type="xsd:string">true</value>
    </qualifier>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">VlanTranslationNode</name>
    <value xsi:type="xsd:string">AUTO</value>
    <qualifier xsi:type="ns1:CIMQualifier">
      <name xsi:type="xsd:string">editable</name>
      <value xsi:type="xsd:string">true</value>
    </qualifier>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">DirectConnect</name>
    <value xsi:type="xsd:string">>false</value>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">AutoPickEsiId</name>
    <value xsi:type="xsd:string">>false</value>
    <qualifier xsi:type="ns1:CIMQualifier">
      <name xsi:type="xsd:string">editable</name>
      <value xsi:type="xsd:string">true</value>
    </qualifier>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">AutopickVCId</name>
    <value xsi:type="xsd:string">>false</value>
    <qualifier xsi:type="ns1:CIMQualifier">
      <name xsi:type="xsd:string">editable</name>
      <value xsi:type="xsd:string">true</value>
    </qualifier>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">AutoPickBDVlanId</name>
    <value xsi:type="xsd:string">>false</value>
    <qualifier xsi:type="ns1:CIMQualifier">
      <name xsi:type="xsd:string">editable</name>
      <value xsi:type="xsd:string">true</value>
    </qualifier>
  </item>

```

```

</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">AutopickVCID</name>
  <value xsi:type="xsd:string">>false</value>
  <qualifier xsi:type="ns1:CIMQualifier">
    <name xsi:type="xsd:string">editable</name>
    <value xsi:type="xsd:string">>true</value>
  </qualifier>
</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">AllowBothTags</name>
  <value xsi:type="xsd:string">>false</value>
  <qualifier xsi:type="ns1:CIMQualifier">
    <name xsi:type="xsd:string">editable</name>
    <value xsi:type="xsd:string">>true</value>
  </qualifier>
</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">PushOuter</name>
  <value xsi:type="xsd:string">>false</value>
  <qualifier xsi:type="ns1:CIMQualifier">
    <name xsi:type="xsd:string">editable</name>
    <value xsi:type="xsd:string">>true</value>
  </qualifier>
</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">PushInner</name>
  <value xsi:type="xsd:string">>false</value>
  <qualifier xsi:type="ns1:CIMQualifier">
    <name xsi:type="xsd:string">editable</name>
    <value xsi:type="xsd:string">>true</value>
  </qualifier>
</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">PopOuter</name>
  <value xsi:type="xsd:string">>false</value>
  <qualifier xsi:type="ns1:CIMQualifier">
    <name xsi:type="xsd:string">editable</name>
    <value xsi:type="xsd:string">>true</value>
  </qualifier>
</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">PopInner</name>
  <value xsi:type="xsd:string">>false</value>
  <qualifier xsi:type="ns1:CIMQualifier">
    <name xsi:type="xsd:string">editable</name>
    <value xsi:type="xsd:string">>true</value>
  </qualifier>
</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">TranslateInner</name>
  <value xsi:type="xsd:string">>false</value>
  <qualifier xsi:type="ns1:CIMQualifier">
    <name xsi:type="xsd:string">editable</name>
    <value xsi:type="xsd:string">>true</value>
  </qualifier>
</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">TranslateOuter</name>
  <value xsi:type="xsd:string">>false</value>
  <qualifier xsi:type="ns1:CIMQualifier">
    <name xsi:type="xsd:string">editable</name>
    <value xsi:type="xsd:string">>true</value>
  </qualifier>
</item>

```

```

</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">UseEVC</name>
  <value xsi:type="xsd:string">>false</value>

</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">UseBD</name>
  <value xsi:type="xsd:string">>true</value>
  <qualifier xsi:type="ns1:CIMQualifier">
    <name xsi:type="xsd:string">editable</name>
    <value xsi:type="xsd:string">>true</value>
  </qualifier>
</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">EncapsulationType</name>
  <value xsi:type="xsd:string">DOT1QTRUNK</value>
  <qualifier xsi:type="ns1:CIMQualifier">
    <name xsi:type="xsd:string">editable</name>
    <value xsi:type="xsd:string">>true</value>
  </qualifier>
</item>
</properties>
</objectPath>
</objectPath>
</ns1:createInstance>
</soapenv:Body>
</soapenv:Envelope>

```

FlexUNI/EVC Service Requests

With a FlexUNI/EVC service request, you can configure interfaces on an N-PE to support EVC infrastructure features.

Before creating a service request, a service policy has to be defined. Use a predefined policy template as is or with modifications to create a service request, and deploy the service. For information on FlexUNI/EVC policies, see [FlexUNI/EVC Service Definitions, page 9-1](#).

Overview

A FlexUNI/EVC service request defines the service definition and VPN to use, assigns interfaces and attributes for each attachment circuit (**EvcLink**), and applies template information.



Note

The attachment circuit, or EvcLink, defines the layer 2 path from the U-PE to the NPE, including any intermediate devices.

When you deploy a FlexUNI/EVC service request using a service order, the attributes specified in the service definition are applied to the devices and interfaces defined in the service request, along with the link attributes for each attachment circuit.

The service request link attributes include any parameters marked as editable in the service definition and link parameters specific to each attachment circuit.

The following XML example shows a partial list of the properties that can be specified for the attachment circuit **EvcLink**.

```

    <objectPath xsi:type="ns1:CIMObjectPath">
      <className xsi:type="xsd:string">EvcLink</className>
    <properties xsi:type="ns1:CIMPropertyList"
      soapenc:arrayType="ns1:CIMProperty[]">
      <item xsi:type="ns1:CIMProperty">
        <name xsi:type="xsd:string">Npe</name>
        <value xsi:type="xsd:string">iscind-7609-1</value>
      </item>
      <item xsi:type="ns1:CIMProperty">
        <name xsi:type="xsd:string">UniInftId</name>
        <value xsi:type="xsd:string">GigabitEthernet7/0/3</value>
      </item>
    </properties>
  </objectPath>
  <objectPath xsi:type="ns1:CIMObjectPath">
    <className xsi:type="xsd:string">EvcETHLinkAttrs</className>
    <properties xsi:type="ns1:CIMPropertyList"
      soapenc:arrayType="ns1:CIMProperty[]">
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">UseServiceInst</name>
      <value xsi:type="xsd:string">>true</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">SystemMTU</name>
      <value xsi:type="xsd:string">1563</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">AutoPickVlanId</name>
      <value xsi:type="xsd:string">>true</value>
    </item>
    </properties>
  </objectPath>
  <objectPath xsi:type="ns1:CIMObjectPath">
    <className xsi:type="xsd:string">EvcServiceInstanceAttrs</className>
    <properties xsi:type="ns1:CIMPropertyList"
      soapenc:arrayType="ns1:CIMProperty[]">
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">OuterVlanRange</name>
      <value xsi:type="xsd:string">261</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">AutoPickServiceInstId</name>
      <value xsi:type="xsd:string">>false</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">ServiceInstID</name>
      <value xsi:type="xsd:string">7845</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">BothTags</name>
      <value xsi:type="xsd:string">>false</value>
    </item>
    </properties>
  </objectPath>
</objectPath>

```

Modifying Service Requests

In this example, a FlexUNI/EVC service request is modified.

```
<?xml version="1.0" encoding="UTF-8"?>
<soapenv:Envelope
  xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:ns0="http://www.cisco.com/cim-cx/2.0"
  xmlns:ns1="urn:CIM">
  <soapenv:Header>
    <!-- WaitTimeout has a default set in system properties.-->
    <ns0:message id="87855" timestamp="2008-04-15T14:55:38.885Z"
      Wait="true" WaitTimeout="90" sessiontoken="p36bttjwyl"/>
  </soapenv:Header>
  <soapenv:Body>
    <ns1:performBatchOperation>
      <actions xsi:type="ns1:CIMActionList" soapenc:arrayType="ns1:CIMAction[]">
        <action>
          <actionName xsi:type="xsd:string">createInstance</actionName>
          <objectPath xsi:type="ns1:CIMObjectPath">
            <className xsi:type="xsd:string">ServiceOrder</className>
            <properties xsi:type="ns1:CIMPropertyList"
              soapenc:arrayType="ns1:CIMProperty[]">
              <item xsi:type="ns1:CIMProperty">
                <name xsi:type="xsd:string">ServiceName</name>
                <value xsi:type="xsd:string">ServiceOrder257</value>
              </item>
              <item xsi:type="ns1:CIMProperty">
                <name xsi:type="xsd:string">CarrierId</name>
                <value xsi:type="xsd:string">322</value>
              </item>
              <item xsi:type="ns1:CIMProperty">
                <name xsi:type="xsd:string">DesiredDueDate</name>
                <value xsi:type="xsd:dateTime">2009-04-15T14:55:38.885Z</value>
              </item>
              <item xsi:type="ns1:CIMProperty">
                <name xsi:type="xsd:string">NumberOfRequests</name>
                <value xsi:type="xsd:string">1</value>
              </item>
            </properties>
          </objectPath>
        </action>
        <action>
          <actionName xsi:type="xsd:string">modifyInstance</actionName>
          <objectPath subAction="modifyInstance" xsi:type="ns1:CIMObjectPath">
            <className xsi:type="xsd:string">ServiceRequest</className>
            <properties xsi:type="ns1:CIMPropertyList"
              soapenc:arrayType="ns1:CIMProperty[]">
              <item xsi:type="ns1:CIMProperty">
                <name xsi:type="xsd:string">RequestName</name>
                <value xsi:type="xsd:string">MYSR-1-1</value>
              </item>
              <item xsi:type="ns1:CIMProperty">
                <name xsi:type="xsd:string">Type</name>
                <value xsi:type="xsd:string">Evc</value>
              </item>
            </properties>
          <objectPath subAction="modifyInstance" xsi:type="ns1:CIMObjectPath">
            <className xsi:type="xsd:string">ServiceRequestDetails</className>
          </objectPath>
        </action>
      </actions>
    </ns1:performBatchOperation>
  </soapenv:Body>
</soapenv:Envelope>
```

```

<keyProperties xsi:type="ns1:CIMKeyPropertyList"
              soapenc:arrayType="ns1:CIMKeyProperty[]">
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">LocatorId</name>
    <value xsi:type="xsd:string">485</value>
  </item>
</keyProperties>

<!-- delete instance -->

<objectPath subAction="deleteInstance" xsi:type="ns1:CIMObjectPath">
  <className xsi:type="xsd:string">EvcLink</className>
  <keyProperties xsi:type="ns1:CIMKeyPropertyList"
                soapenc:arrayType="ns1:CIMKeyProperty[]">
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">LocatorId</name>
      <value xsi:type="xsd:string">524</value>
    </item>
  </keyProperties>
</objectPath>

<!-- Modify Instance -->

<objectPath subAction="modifyInstance" xsi:type="ns1:CIMObjectPath">
  <className xsi:type="xsd:string">EvcLink</className>
  <keyProperties xsi:type="ns1:CIMKeyPropertyList"
                soapenc:arrayType="ns1:CIMKeyProperty[]">
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">LocatorId</name>
      <value xsi:type="xsd:string">527</value>
    </item>
  </keyProperties>
<objectPath subAction="modifyInstance" xsi:type="ns1:CIMObjectPath">
  <className xsi:type="xsd:string">EvcETHLinkAttrs</className>
  <properties xsi:type="ns1:CIMPropertyList"
              soapenc:arrayType="ns1:CIMProperty[]">
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">UseServiceInst</name>
      <value xsi:type="xsd:string">>true</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">VlanTranslationNode</name>
      <value xsi:type="xsd:string">AUTO</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">VlanTranslationType</name>
      <value xsi:type="xsd:string">2:1</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">OuterVlanID</name>
      <value xsi:type="xsd:string">188</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">CeVlanID</name>
      <value xsi:type="xsd:string">195</value>
    </item>
  </properties>
</objectPath>

<objectPath subAction="modifyInstance" xsi:type="ns1:CIMObjectPath">
  <className xsi:type="xsd:string">EvcServiceInstanceAttrs</className>
  <properties xsi:type="ns1:CIMPropertyList"
              soapenc:arrayType="ns1:CIMProperty[]">

```

```

<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">AutoPickServiceInstId</name>
  <value xsi:type="xsd:string">>false</value>
</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">ServiceInstID</name>
  <value xsi:type="xsd:string">5258</value>
</item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">OuterVlanRange</name>
    <value xsi:type="xsd:string">1928</value>
  </item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">InnerVlanRange</name>
  <value xsi:type="xsd:string">2684</value>
</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">BothTags</name>
  <value xsi:type="xsd:string">>true</value>
</item>
</properties>
</objectPath>

<objectPath subAction="modifyInstance" xsi:type="ns1:CIMObjectPath">
  <className xsi:type="xsd:string">EvcUNIProtocolTunnelAttrs</className>
  <properties xsi:type="ns1:CIMPropertyList"
    soapenc:arrayType="ns1:CIMProperty[]">
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">ProtocolTunnelling</name>
      <value xsi:type="xsd:string">>true</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">VtpDropThreshold</name>
      <value xsi:type="xsd:string">11</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">CdpDropThreshold</name>
      <value xsi:type="xsd:string">22</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">StpDropThreshold</name>
      <value xsi:type="xsd:string">25</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">StpThreshold</name>
      <value xsi:type="xsd:string">281</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">VtpThreshold</name>
      <value xsi:type="xsd:string">2017</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">CdpThreshold</name>
      <value xsi:type="xsd:string">2107</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">CdpEnable</name>
      <value xsi:type="xsd:string">>true</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">VtpEnable</name>
      <value xsi:type="xsd:string">>true</value>
    </item>
    <item xsi:type="ns1:CIMProperty">

```

```

        <name xsi:type="xsd:string">StpEnable</name>
        <value xsi:type="xsd:string">>true</value>
    </item>
</properties>
</objectPath>

<objectPath subAction="modifyInstance" xsi:type="ns1:CIMObjectPath">
  <className xsi:type="xsd:string">EvcUNIInterfaceAttrs</className>
  <properties xsi:type="ns1:CIMPropertyList"
    soapenc:arrayType="ns1:CIMProperty[]" >
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">PortSecurity</name>
      <value xsi:type="xsd:string">>true</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">Shutdown</name>
      <value xsi:type="xsd:string">>true</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">PeIntfDesc</name>
      <value xsi:type="xsd:string">*****AC2*****</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">MacAddress</name>
      <value xsi:type="xsd:string">568</value>
    </item>
    <!-- <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">UserDefinedACLName</name>
      <value xsi:type="xsd:string">ACL</value>
    </item> -->
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">BroadcastTraffic</name>
      <value xsi:type="xsd:string">55</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">Aging</name>
      <value xsi:type="xsd:string">1330</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">UniKeepAlive</name>
      <value xsi:type="xsd:string">>true</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">StdUniPort</name>
      <value xsi:type="xsd:string">>true</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">ViolationActionType</name>
      <value xsi:type="xsd:string">PROTECT</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">FilterBPDU</name>
      <value xsi:type="xsd:string">>true</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">DuplexType</name>
      <value xsi:type="xsd:string">Half</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">UnicastTraffic</name>
      <value xsi:type="xsd:string">54</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">MulticastTraffic</name>

```

```

        <value xsi:type="xsd:string">56</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
        <name xsi:type="xsd:string">SpeedType</name>
        <value xsi:type="xsd:string">1000</value>
    </item>
</properties>
</objectPath>

<!-- <objectPath subAction="createInstance"
xsi:type="ns1:CIMObjectPath">
    <className xsi:type="xsd:string">EvcUNIMacACLAddresses</className>
    <properties xsi:type="ns1:CIMPropertyList"
        soapenc:arrayType="ns1:CIMProperty[]">
        <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">MacAddress</name>
            <value xsi:type="xsd:string">2222.3333.6666</value>
        </item>
        <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">Permission</name>
            <value xsi:type="xsd:string">permit</value>
        </item>
        <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">MacAclRange</name>
            <value xsi:type="xsd:string">1111.2222.4444</value>
        </item>
    </properties>
</objectPath> -->

<objectPath subAction="createInstance" xsi:type="ns1:CIMObjectPath">
    <className xsi:type="xsd:string">EvcSecureMacAddress</className>
    <properties xsi:type="ns1:CIMPropertyList"
        soapenc:arrayType="ns1:CIMProperty[]">
        <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">MacAddress</name>
            <value xsi:type="xsd:string">cccc.cccc.dddd</value>
        </item>
    </properties>
</objectPath>

</objectPath>

<!-- Create Instance -->

<!-- <objectPath subAction="createInstance" xsi:type="ns1:CIMObjectPath">
    <className xsi:type="xsd:string">EvcLink</className>
    <properties xsi:type="ns1:CIMPropertyList"
        soapenc:arrayType="ns1:CIMProperty[]">
        <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">Npe</name>
            <value xsi:type="xsd:string">iscind-7609-1</value>
        </item>
        <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">UniInftId</name>
            <value xsi:type="xsd:string">GigabitEthernet7/0/9</value>
        </item>
    </properties>
    <objectPath subAction="createInstance" xsi:type="ns1:CIMObjectPath">
        <className xsi:type="xsd:string">EvcETHLinkAttrs</className>
        <properties xsi:type="ns1:CIMPropertyList"
            soapenc:arrayType="ns1:CIMProperty[]">

```

```

<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">UseServiceInst</name>
  <value xsi:type="xsd:string">true</value>
</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">AutoPickVlanId</name>
  <value xsi:type="xsd:string">true</value>
</item>
</properties>
</objectPath>
<objectPath subAction="createInstance" xsi:type="ns1:CIMObjectPath">
  <className xsi:type="xsd:string">EvcServiceInstanceAttrs</className>
  <properties xsi:type="ns1:CIMPropertyList"
    soapenc:arrayType="ns1:CIMProperty[]">
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">AutoPickServiceInstId</name>
      <value xsi:type="xsd:string">true</value>
    </item>

    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">OuterVlanRange</name>
      <value xsi:type="xsd:string">1584</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">MatchInnerVlan</name>
      <value xsi:type="xsd:string">>false</value>
    </item>
  </properties>
</objectPath>
<objectPath subAction="createInstance" xsi:type="ns1:CIMObjectPath">
  <className xsi:type="xsd:string">EvcUNIProtocolTunnelAttrs</className>
  <properties xsi:type="ns1:CIMPropertyList"
    soapenc:arrayType="ns1:CIMProperty[]">
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">ProtocolTunnelling</name>
      <value xsi:type="xsd:string">true</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">VtpDropThreshold</name>
      <value xsi:type="xsd:string">10</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">CdpDropThreshold</name>
      <value xsi:type="xsd:string">20</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">StpDropThreshold</name>
      <value xsi:type="xsd:string">27</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">StpThreshold</name>
      <value xsi:type="xsd:string">27</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">VtpThreshold</name>
      <value xsi:type="xsd:string">2007</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">CdpThreshold</name>
      <value xsi:type="xsd:string">2007</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">CdpEnable</name>
      <value xsi:type="xsd:string">true</value>
    </item>
  </properties>
</objectPath>

```

```

        </item>
        <item xsi:type="ns1:CIMProperty">
          <name xsi:type="xsd:string">VtpEnable</name>
          <value xsi:type="xsd:string">>true</value>
        </item>
        <item xsi:type="ns1:CIMProperty">
          <name xsi:type="xsd:string">StpEnable</name>
          <value xsi:type="xsd:string">>true</value>
        </item>
      </properties>
    </objectPath>
    <objectPath subAction="createInstance" xsi:type="ns1:CIMObjectPath">
      <className xsi:type="xsd:string">EvcUNIInterfaceAttrs</className>
      <properties xsi:type="ns1:CIMPropertyList"
        soapenc:arrayType="ns1:CIMProperty[]">
        <item xsi:type="ns1:CIMProperty">
          <name xsi:type="xsd:string">Shutdown</name>
          <value xsi:type="xsd:string">>true</value>
        </item>
        <item xsi:type="ns1:CIMProperty">
          <name xsi:type="xsd:string">PeIntfDesc</name>
          <value xsi:type="xsd:string">**Half**</value>
        </item>
      </properties>
    </objectPath>
  </objectPath> -->
</objectPath>
</objectPath>
</action>
</actions>
</ns1:performBatchOperation>
</soapenv:Body>
</soapenv:Envelope>

```

End-To-End Wires

An end-to-end wire is the link from one endpoint through the service provider cloud to another endpoint. In most cases, these links are from CE to CE. An attachment circuit is the link from the CE to the PE. If no CE is present, the attachment circuit link is from PE-CLE to PE-CLE.

The following network diagrams depict the three types of connectivity:

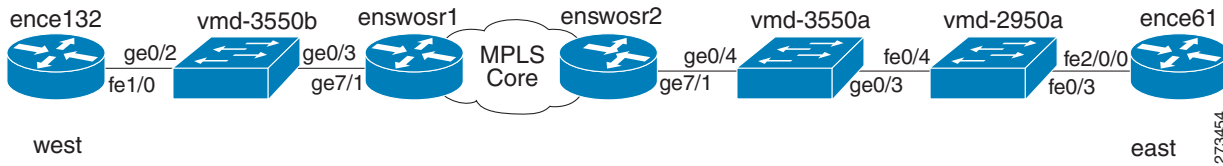
- [Pseudowire Network Diagram](#)
- [VPLS Network Diagram](#)
- [Local Connect Network Diagram](#)

Pseudowire Network Diagram

In the FlexUNI/EVC network example shown in [Figure 9-1](#), there are two EvcLinks:

- ence132 to enswostr1
- ence61 to enswostr2.

Figure 9-1 End to End Wire Network Example - Pseudowire

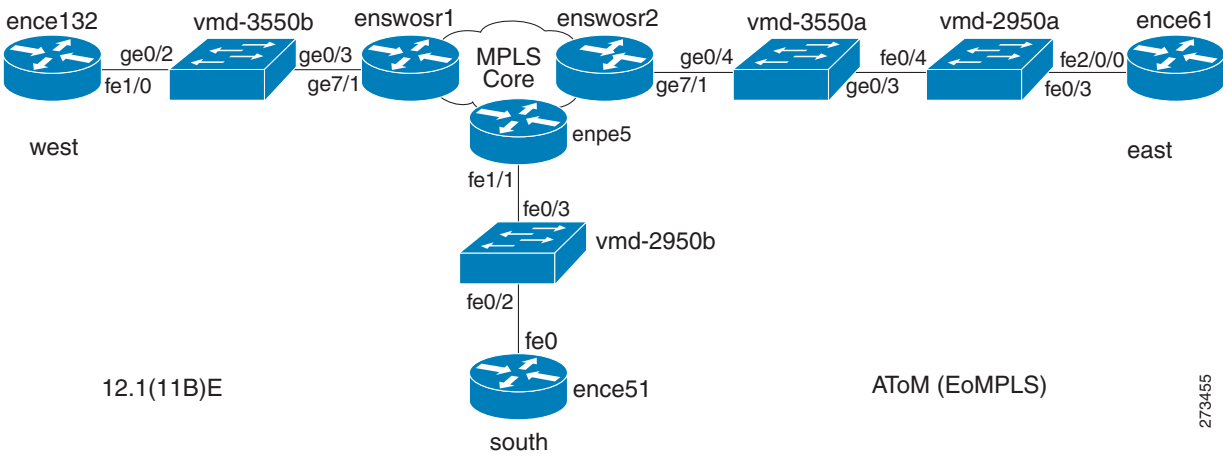


VPLS Network Diagram

In the EthernetEVCS network example shown in [Figure 9-2](#), there are three EvcLinks:

- ence132 to enswosr1
- ence61 to enswosr2
- ence51 to enpe5.

Figure 9-2 End to End Wire Network Example - VPLS

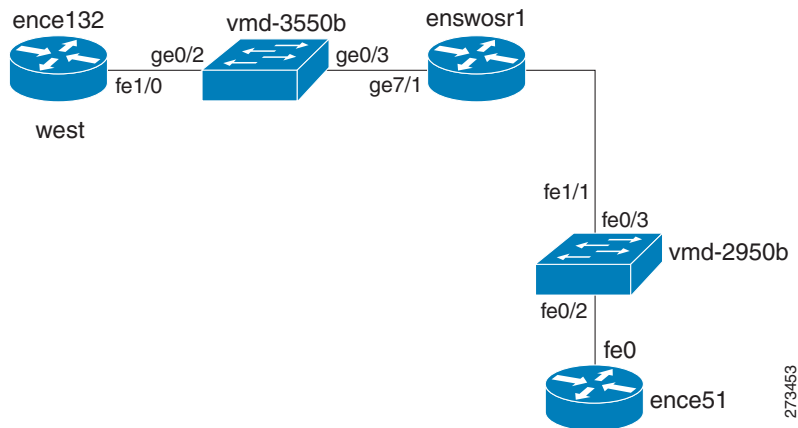


Local Connect Network Diagram

In the EthernetEVC network example shown in [Figure 9-3](#), there are two EvcLinks:

- ence132 to enswostr1
- ence51 to enswostr1.

Figure 9-3 End to End Wire Network Example - Local Connect



Service Request Examples

The following are XML examples of service requests for the four supported connectivity types:

- [Local Connect Service Request, page 9-24](#)
- [Pseudowire Service Request, page 9-30](#)
- [VPLS Service Request, page 9-34](#)
- [End-to-End Provisioning Process, page 9-39.](#)

Local Connect Service Request

In this example, a FlexUNI/EVC service request is created using local connect.

```
<?xml version="1.0" encoding="UTF-8"?>
<soapenv:Envelope
  xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:ns0="http://www.cisco.com/cim-cx/2.0"
  xmlns:ns1="urn:CIM">
  <soapenv:Header>
    <!-- WaitTimeout has a default set in system properties.-->
    <ns0:message id="87855" timestamp="2002-12-13T14:55:38.885Z"
      Wait="true" WaitTimeout="90" sessiontoken="p36bttjwy1"/>
  </soapenv:Header>
  <soapenv:Body>
```

```

<ns1:performBatchOperation>
  <actions xsi:type="ns1:CIMActionList"
    soapenc:arrayType="ns1:CIMAction[]">
    <action>
      <actionName xsi:type="xsd:string">createInstance</actionName>
      <objectPath xsi:type="ns1:CIMObjectPath">
        <className xsi:type="xsd:string">ServiceOrder</className>
        <properties xsi:type="ns1:CIMPropertyList"
          soapenc:arrayType="ns1:CIMProperty[]">
          <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">ServiceName</name>
            <value xsi:type="xsd:string">ServiceOrder257</value>
          </item>
          <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">DesiredDueDate</name>
            <value xsi:type="xsd:dateTime">2008-12-13T14:55:38.885Z</value>
          </item>
          <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">NumberOfRequests</name>
            <value xsi:type="xsd:string">1</value>
          </item>
        </properties>
      </objectPath>
    </action>
    <action>
      <actionName xsi:type="xsd:string">createInstance</actionName>
      <objectPath xsi:type="ns1:CIMObjectPath">
        <className xsi:type="xsd:string">ServiceRequest</className>
        <properties xsi:type="ns1:CIMPropertyList"
          soapenc:arrayType="ns1:CIMProperty[]">
          <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">RequestName</name>
            <value xsi:type="xsd:string">EvcSR-7</value>
          </item>
          <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">Type</name>
            <value xsi:type="xsd:string">Evc</value>
          </item>
        </properties>
      </objectPath>
      <className xsi:type="xsd:string">ServiceRequestDetails</className>
      <properties xsi:type="ns1:CIMPropertyList"
        soapenc:arrayType="ns1:CIMProperty[]">
        <item xsi:type="ns1:CIMProperty">
          <name xsi:type="xsd:string">ServiceDefinition</name>
          <value xsi:type="xsd:string">doc_local</value>
          <qualifier xsi:type="xsd:string">
            <name xsi:type="xsd:string">ServiceDefinitionType</name>
            <value xsi:type="xsd:string">Evc</value>
          </qualifier>
        </item>
        <item xsi:type="ns1:CIMProperty">
          <name xsi:type="xsd:string">VPN</name>
          <value xsi:type="xsd:string">cust3_vpn2</value>
        </item>
        <item xsi:type="ns1:CIMProperty">
          <name xsi:type="xsd:string">UseSVI</name>
          <value xsi:type="xsd:string">true</value>
        </item>
      </properties>
      <objectPath xsi:type="ns1:CIMObjectPath">
        <className xsi:type="xsd:string">EvcLink</className>
        <properties xsi:type="ns1:CIMPropertyList"
          soapenc:arrayType="ns1:CIMProperty[]">

```

```

        <item xsi:type="ns1:CIMProperty">
          <name xsi:type="xsd:string">Npe</name>
          <value xsi:type="xsd:string">iscind-7600-3</value>
        </item>
        <item xsi:type="ns1:CIMProperty">
          <name xsi:type="xsd:string">UniInftId</name>
          <value xsi:type="xsd:string">FastEthernet2/3</value>
        </item>
      </properties>
    </objectPath xsi:type="ns1:CIMObjectPath">
      <className xsi:type="xsd:string">EvcETHLinkAttrs</className>
      <properties xsi:type="ns1:CIMPropertyList"
        soapenc:arrayType="ns1:CIMProperty[]">
        <item xsi:type="ns1:CIMProperty">
          <name xsi:type="xsd:string">SystemMTU</name>
          <value xsi:type="xsd:string">1563</value>
        </item>
        <item xsi:type="ns1:CIMProperty">
          <name xsi:type="xsd:string">AutoPickVlanId</name>
          <value xsi:type="xsd:string">>false</value>
        </item>
        <item xsi:type="ns1:CIMProperty">
          <name xsi:type="xsd:string">VlanID</name>
          <value xsi:type="xsd:string">18</value>
        </item>
        <item xsi:type="ns1:CIMProperty">
          <name xsi:type="xsd:string">UseServiceInst</name>
          <value xsi:type="xsd:string">>true</value>
        </item>
      </properties>
    </objectPath>
    <objectPath xsi:type="ns1:CIMObjectPath">
      <className xsi:type="xsd:string">EvcServiceInstanceAttrs</className>
      <properties xsi:type="ns1:CIMPropertyList"
        soapenc:arrayType="ns1:CIMProperty[]">
        <item xsi:type="ns1:CIMProperty">
          <name xsi:type="xsd:string">AutoPickServiceInstId</name>
          <value xsi:type="xsd:string">>false</value>
        </item>
        <item xsi:type="ns1:CIMProperty">
          <name xsi:type="xsd:string">ServiceInstID</name>
          <value xsi:type="xsd:string">1947</value>
        </item>
        <item xsi:type="ns1:CIMProperty">
          <name xsi:type="xsd:string">BothTags</name>
          <value xsi:type="xsd:string">>true</value>
        </item>
        <item xsi:type="ns1:CIMProperty">
          <name xsi:type="xsd:string">OuterVlanRange</name>
          <value xsi:type="xsd:string">745</value>
        </item>
        <item xsi:type="ns1:CIMProperty">
          <name xsi:type="xsd:string">InnerVlanRange</name>
          <value xsi:type="xsd:string">746</value>
        </item>
      </properties>
    </objectPath>
    <objectPath xsi:type="ns1:CIMObjectPath">
      <className xsi:type="xsd:string">EvcUNIInterfaceAttrs</className>
      <properties xsi:type="ns1:CIMPropertyList"
        soapenc:arrayType="ns1:CIMProperty[]">
        <item xsi:type="ns1:CIMProperty">
          <name xsi:type="xsd:string">Shutdown</name>
          <value xsi:type="xsd:string">>true</value>

```

```

    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">PeIntfDesc</name>
      <value xsi:type="xsd:string">*** AC1 ***</value>
    </item>
  </properties>
</objectPath>
</objectPath>

<!-- L2Access Links -->

<objectPath xsi:type="ns1:CIMObjectPath">
  <className xsi:type="xsd:string">EvcLink</className>
  <properties xsi:type="ns1:CIMPropertyList"
    soapenc:arrayType="ns1:CIMProperty[]">
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">Upe</name>
      <value xsi:type="xsd:string">iscind-3750-6</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">UniInftId</name>
      <value xsi:type="xsd:string">FastEthernet1/0/7</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">NPC</name>
      <value xsi:type="xsd:string">27</value>
    </item>
  </properties>
  <objectPath xsi:type="ns1:CIMObjectPath">
    <className xsi:type="xsd:string">EvcETHLinkAttrs</className>
    <properties xsi:type="ns1:CIMPropertyList"
      soapenc:arrayType="ns1:CIMProperty[]">
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">AutopickOuterVlanId</name>
      <value xsi:type="xsd:string">>false</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">SystemMTU</name>
      <value xsi:type="xsd:string">1570</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">AutoPickVlanId</name>
      <value xsi:type="xsd:string">>true</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">UseServiceInst</name>
      <value xsi:type="xsd:string">>false</value>
    </item>
  </properties>
</objectPath>
<!-- <objectPath xsi:type="ns1:CIMObjectPath">
  <className xsi:type="xsd:string">EvcServiceInstanceAttrs</className>
  <properties xsi:type="ns1:CIMPropertyList"
    soapenc:arrayType="ns1:CIMProperty[]">
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">AutoPickServiceInstId</name>
    <value xsi:type="xsd:string">>false</value>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">ServiceInstID</name>
    <value xsi:type="xsd:string">2458</value>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">BothTags</name>
  </item>
-->

```

```

        <value xsi:type="xsd:string">true</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
        <name xsi:type="xsd:string">OuterVlanRange</name>
        <value xsi:type="xsd:string">547</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
        <name xsi:type="xsd:string">InnerVlanRange</name>
        <value xsi:type="xsd:string">545</value>
    </item>
    </properties>
</objectPath> -->
<objectPath xsi:type="ns1:CIMObjectPath">
    <className xsi:type="xsd:string">EvcUNIProtocolTunnelAttrs</className>
    <properties xsi:type="ns1:CIMPropertyList"
        soapenc:arrayType="ns1:CIMProperty[]">

    <item xsi:type="ns1:CIMProperty">
        <name xsi:type="xsd:string">ProtocolTunnelling</name>
        <value xsi:type="xsd:string">true</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
        <name xsi:type="xsd:string">CdpEnable</name>
        <value xsi:type="xsd:string">true</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
        <name xsi:type="xsd:string">VtpEnable</name>
        <value xsi:type="xsd:string">true</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
        <name xsi:type="xsd:string">StpEnable</name>
        <value xsi:type="xsd:string">true</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
        <name xsi:type="xsd:string">VtpDropThreshold</name>
        <value xsi:type="xsd:string">10</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
        <name xsi:type="xsd:string">CdpDropThreshold</name>
        <value xsi:type="xsd:string">20</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
        <name xsi:type="xsd:string">StpDropThreshold</name>
        <value xsi:type="xsd:string">27</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
        <name xsi:type="xsd:string">StpThreshold</name>
        <value xsi:type="xsd:string">27</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
        <name xsi:type="xsd:string">VtpThreshold</name>
        <value xsi:type="xsd:string">2007</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
        <name xsi:type="xsd:string">CdpThreshold</name>
        <value xsi:type="xsd:string">2007</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
        <name xsi:type="xsd:string">RecoveryInterval</name>
        <value xsi:type="xsd:string">4789</value>
    </item>
    </properties>
</objectPath>
<objectPath xsi:type="ns1:CIMObjectPath">

```

```

<className xsi:type="xsd:string">EvcUNIInterfaceAttrs</className>
<properties xsi:type="ns1:CIMPropertyList"
    soapenc:arrayType="ns1:CIMProperty[]">
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">PortSecurity</name>
    <value xsi:type="xsd:string">>true</value>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">SpeedType</name>
    <value xsi:type="xsd:string">Auto</value>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">DuplexType</name>
    <value xsi:type="xsd:string">Half</value>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">Shutdown</name>
    <value xsi:type="xsd:string">>true</value>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">ViolationActionType</name>
    <value xsi:type="xsd:string">RESTRICT</value>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">Aging</name>
    <value xsi:type="xsd:string">124</value>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">MacAddress</name>
    <value xsi:type="xsd:string">2458</value>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">BroadcastTraffic</name>
    <value xsi:type="xsd:string">24</value>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">MulticastTraffic</name>
    <value xsi:type="xsd:string">34</value>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">UnicastTraffic</name>
    <value xsi:type="xsd:string">44</value>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">StdUniPort</name>
    <value xsi:type="xsd:string">>true</value>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">DisableCDP</name>
    <value xsi:type="xsd:string">>true</value>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">PeIntfDesc</name>
    <value xsi:type="xsd:string">Description</value>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">PortSecurity</name>
    <value xsi:type="xsd:string">>true</value>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">Shutdown</name>
    <value xsi:type="xsd:string">>true</value>
  </item>
  <item xsi:type="ns1:CIMProperty">

```

```

        <name xsi:type="xsd:string">UniKeepAlive</name>
        <value xsi:type="xsd:string">true</value>
    </item>
</properties>
</objectPath>
</objectPath>

</objectPath>
</objectPath>
</action>
</actions>
</ns1:performBatchOperation>
</soapenv:Body>
</soapenv:Envelope>

```

Pseudowire Service Request

In this example, a FlexUNI/EVC service request is created using pseudowire.

```

<?xml version="1.0" encoding="UTF-8"?>
<soapenv:Envelope
  xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:ns0="http://www.cisco.com/cim-cx/2.0"
  xmlns:ns1="urn:CIM">
  <soapenv:Header>
    <!-- WaitTimeout has a default set in system properties.-->
    <ns0:message id="87855" timestamp="2002-12-13T14:55:38.885Z"
      Wait="true" WaitTimeout="90" sessiontoken="p36bttjwyl"/>
  </soapenv:Header>
  <soapenv:Body>
    <ns1:performBatchOperation>
      <actions xsi:type="ns1:CIMActionList"
        soapenc:arrayType="ns1:CIMAction[]">
        <action>
          <actionName xsi:type="xsd:string">createInstance</actionName>
          <objectPath xsi:type="ns1:CIMObjectPath">
            <className xsi:type="xsd:string">ServiceOrder</className>
            <properties xsi:type="ns1:CIMPropertyList"
              soapenc:arrayType="ns1:CIMProperty[]">
              <item xsi:type="ns1:CIMProperty">
                <name xsi:type="xsd:string">ServiceName</name>
                <value xsi:type="xsd:string">ServiceOrder257</value>
              </item>
              <item xsi:type="ns1:CIMProperty">
                <name xsi:type="xsd:string">CarrierId</name>
                <value xsi:type="xsd:string">322</value>
              </item>
              <item xsi:type="ns1:CIMProperty">
                <name xsi:type="xsd:string">DesiredDueDate</name>
                <value xsi:type="xsd:dateTime">2008-12-13T14:55:38.885Z</value>
              </item>
              <item xsi:type="ns1:CIMProperty">
                <name xsi:type="xsd:string">NumberOfRequests</name>
                <value xsi:type="xsd:string">1</value>
              </item>
            </properties>
          </objectPath>
        </action>
      </actions>
    </ns1:performBatchOperation>
  </soapenv:Body>
</soapenv:Envelope>

```

```

</action>
<action>
  <actionName xsi:type="xsd:string">createInstance</actionName>
<objectPath xsi:type="ns1:CIMObjectPath">
  <className xsi:type="xsd:string">ServiceRequest</className>
  <properties xsi:type="ns1:CIMPropertyList"
    soapenc:arrayType="ns1:CIMProperty[]">
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">RequestName</name>
      <value xsi:type="xsd:string">EvcSR-7</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">Type</name>
      <value xsi:type="xsd:string">Evc</value>
    </item>
  </properties>
<objectPath xsi:type="ns1:CIMObjectPath">
  <className xsi:type="xsd:string">ServiceRequestDetails</className>
  <properties xsi:type="ns1:CIMPropertyList"
    soapenc:arrayType="ns1:CIMProperty[]">
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">ServiceDefinition</name>
      <value xsi:type="xsd:string">doc_pw</value>
      <qualifier xsi:type="xsd:string">
        <name xsi:type="xsd:string">ServiceDefinitionType</name>
        <value xsi:type="xsd:string">Evc</value>
      </qualifier>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">VPN</name>
      <value xsi:type="xsd:string">cust1_vpn1</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">AutopickVCID</name>
      <value xsi:type="xsd:string">true</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">UseBackupVCID</name>
      <value xsi:type="xsd:string">true</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">UseSVI</name>
      <value xsi:type="xsd:string">true</value>
    </item>
  </properties>
<objectPath xsi:type="ns1:CIMObjectPath">
  <className xsi:type="xsd:string">EvcLink</className>
  <properties xsi:type="ns1:CIMPropertyList"
    soapenc:arrayType="ns1:CIMProperty[]">
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">Npe</name>
      <value xsi:type="xsd:string">iscind-7609-1</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">UniInftId</name>
      <value xsi:type="xsd:string">GigabitEthernet7/0/3</value>
    </item>
  </properties>
<objectPath xsi:type="ns1:CIMObjectPath">
  <className xsi:type="xsd:string">EvcETHLinkAttrs</className>
  <properties xsi:type="ns1:CIMPropertyList"
    soapenc:arrayType="ns1:CIMProperty[]">
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">UseServiceInst</name>

```

```

        <value xsi:type="xsd:string">true</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
        <name xsi:type="xsd:string">SystemMTU</name>
        <value xsi:type="xsd:string">1563</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
        <name xsi:type="xsd:string">AutoPickVlanId</name>
        <value xsi:type="xsd:string">true</value>
    </item>
</properties>
</objectPath>
<objectPath xsi:type="ns1:CIMObjectPath">
    <className xsi:type="xsd:string">EvcServiceInstanceAttrs</className>
    <properties xsi:type="ns1:CIMPropertyList"
        soapenc:arrayType="ns1:CIMProperty[]">
        <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">OuterVlanRange</name>
            <value xsi:type="xsd:string">261</value>
        </item>
        <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">AutoPickServiceInstId</name>
            <value xsi:type="xsd:string">>false</value>
        </item>
        <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">ServiceInstID</name>
            <value xsi:type="xsd:string">7845</value>
        </item>
        <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">BothTags</name>
            <value xsi:type="xsd:string">>false</value>
        </item>
    </properties>
</objectPath>
<!-- SRAssociated Templates -->

</objectPath>

<!-- L2Access Links -->

<objectPath xsi:type="ns1:CIMObjectPath">
    <className xsi:type="xsd:string">EvcLink</className>
    <properties xsi:type="ns1:CIMPropertyList"
        soapenc:arrayType="ns1:CIMProperty[]">
        <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">Upe</name>
            <value xsi:type="xsd:string">iscind-3750-1</value>
        </item>
        <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">UniInftId</name>
            <value xsi:type="xsd:string">FastEthernet1/0/8</value>
        </item>
        <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">NPC</name>
            <value xsi:type="xsd:string">31</value>
        </item>
    </properties>
    <objectPath xsi:type="ns1:CIMObjectPath">
        <className xsi:type="xsd:string">EvcETHLinkAttrs</className>
        <properties xsi:type="ns1:CIMPropertyList"
            soapenc:arrayType="ns1:CIMProperty[]">
            <item xsi:type="ns1:CIMProperty">
                <name xsi:type="xsd:string">UseServiceInst</name>
                <value xsi:type="xsd:string">>false</value>
            </item>
        </properties>
    </objectPath>
</objectPath>

```

```

</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">SystemMTU</name>
  <value xsi:type="xsd:string">1563</value>
</item>
</properties>
</objectPath>
<objectPath xsi:type="ns1:CIMObjectPath">
  <className xsi:type="xsd:string">EvcUNIProtocolTunnelAttrs</className>
  <properties xsi:type="ns1:CIMPropertyList"
    soapenc:arrayType="ns1:CIMProperty[]">
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">ProtocolTunnelling</name>
      <value xsi:type="xsd:string">true</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">VtpDropThreshold</name>
      <value xsi:type="xsd:string">10</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">CdpDropThreshold</name>
      <value xsi:type="xsd:string">20</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">StpDropThreshold</name>
      <value xsi:type="xsd:string">27</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">StpThreshold</name>
      <value xsi:type="xsd:string">27</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">VtpThreshold</name>
      <value xsi:type="xsd:string">2007</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">CdpThreshold</name>
      <value xsi:type="xsd:string">2007</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">CdpEnable</name>
      <value xsi:type="xsd:string">true</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">VtpEnable</name>
      <value xsi:type="xsd:string">true</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">StpEnable</name>
      <value xsi:type="xsd:string">true</value>
    </item>
  </properties>
</objectPath>
<objectPath xsi:type="ns1:CIMObjectPath">
  <className xsi:type="xsd:string">EvcUNIInterfaceAttrs</className>
  <properties xsi:type="ns1:CIMPropertyList"
    soapenc:arrayType="ns1:CIMProperty[]">
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">PortSecurity</name>
      <value xsi:type="xsd:string">true</value>
    </item>
  </properties>
</objectPath>

```

```

</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">SpeedType</name>
  <value xsi:type="xsd:string">100</value>
</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">DuplexType</name>
  <value xsi:type="xsd:string">Half</value>
</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">Shutdown</name>
  <value xsi:type="xsd:string">>true</value>
</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">MacAddress</name>
  <value xsi:type="xsd:string">5</value>
</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">Aging</name>
  <value xsi:type="xsd:string">201</value>
</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">ViolationActionType</name>
  <value xsi:type="xsd:string">RESTRICT</value>
</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">BroadcastTraffic</name>
  <value xsi:type="xsd:string">25</value>
</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">MulticastTraffic</name>
  <value xsi:type="xsd:string">25</value>
</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">UnicastTraffic</name>
  <value xsi:type="xsd:string">25</value>
</item>
</properties>
</objectPath>
</objectPath>
</objectPath>
</action>
</actions>
</ns1:performBatchOperation>
</soapenv:Body>
</soapenv:Envelope>

```

VPLS Service Request

In this example, a FlexUNI/EVC service request is created using VPLS.

```

<?xml version="1.0" encoding="UTF-8" ?>
<soapenv:Envelope
  xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:ns0="http://www.cisco.com/cim-cx/2.0"
  xmlns:ns1="urn:CIM">

```

```

<soapenv:Header>
  <!-- WaitTimeout has a default set in system properties.-->
  <ns0:message id="87855" timestamp="2002-12-13T14:55:38.885Z"
    Wait="true" WaitTimeout="90" sessiontoken="p36bttjwy1" />
</soapenv:Header>
<soapenv:Body>
  <ns1:performBatchOperation>
    <actions xsi:type="ns1:CIMActionList"
      soapenc:arrayType="ns1:CIMAction[]">
      <action>
        <actionName xsi:type="xsd:string">createInstance</actionName>
        <objectPath xsi:type="ns1:CIMObjectPath">
          <className xsi:type="xsd:string">ServiceOrder</className>
          <properties xsi:type="ns1:CIMPropertyList"
            soapenc:arrayType="ns1:CIMProperty[]">
            <item xsi:type="ns1:CIMProperty">
              <name xsi:type="xsd:string">ServiceName</name>
              <value xsi:type="xsd:string">ServiceOrder257</value>
            </item>
            <item xsi:type="ns1:CIMProperty">
              <name xsi:type="xsd:string">DesiredDueDate</name>
              <value xsi:type="xsd:dateTime">2008-12-13T14:55:38.885Z</value>
            </item>
            <item xsi:type="ns1:CIMProperty">
              <name xsi:type="xsd:string">NumberOfRequests</name>
              <value xsi:type="xsd:string">1</value>
            </item>
          </properties>
        </objectPath>
      </action>
      <action>
        <actionName xsi:type="xsd:string">createInstance</actionName>
        <objectPath xsi:type="ns1:CIMObjectPath">
          <className xsi:type="xsd:string">ServiceRequest</className>
          <properties xsi:type="ns1:CIMPropertyList"
            soapenc:arrayType="ns1:CIMProperty[]">
            <item xsi:type="ns1:CIMProperty">
              <name xsi:type="xsd:string">RequestName</name>
              <value xsi:type="xsd:string">EvcSR-7</value>
            </item>
            <item xsi:type="ns1:CIMProperty">
              <name xsi:type="xsd:string">Type</name>
              <value xsi:type="xsd:string">Evc</value>
            </item>
          </properties>
        <objectPath xsi:type="ns1:CIMObjectPath">
          <className xsi:type="xsd:string">ServiceRequestDetails</className>
          <properties xsi:type="ns1:CIMPropertyList"
            soapenc:arrayType="ns1:CIMProperty[]">
            <item xsi:type="ns1:CIMProperty">
              <name xsi:type="xsd:string">ServiceDefinition</name>
              <value xsi:type="xsd:string">doc_vpls</value>
              <qualifier xsi:type="xsd:string">
                <name xsi:type="xsd:string">ServiceDefinitionType</name>
                <value xsi:type="xsd:string">Evc</value>
              </qualifier>
            </item>
            <item xsi:type="ns1:CIMProperty">
              <name xsi:type="xsd:string">VPN</name>
              <value xsi:type="xsd:string">cust1_vpn2</value>
            </item>
            <item xsi:type="ns1:CIMProperty">
              <name xsi:type="xsd:string">AutopickVCID</name>
              <value xsi:type="xsd:string">>true</value>
            </item>
          </properties>
        </objectPath>
      </action>
    </actions>
  </performBatchOperation>
</soapenv:Body>

```

```

</item>
<item xsi:type="ns1:CIMProperty">
  <name xsi:type="xsd:string">UseSVI</name>
  <value xsi:type="xsd:string">>true</value>
</item>
</properties>
<objectPath xsi:type="ns1:CIMObjectPath">
  <className xsi:type="xsd:string">EvcLink</className>
  <properties xsi:type="ns1:CIMPropertyList"
    soapenc:arrayType="ns1:CIMProperty[]">
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">Npe</name>
      <value xsi:type="xsd:string">iscind-7609-2</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">UniInftId</name>
      <value xsi:type="xsd:string">GigabitEthernet7/0/1</value>
    </item>
  </properties>
<objectPath xsi:type="ns1:CIMObjectPath">
  <className xsi:type="xsd:string">EvcETHLinkAttrs</className>
  <properties xsi:type="ns1:CIMPropertyList"
    soapenc:arrayType="ns1:CIMProperty[]">
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">SystemMTU</name>
      <value xsi:type="xsd:string">1544</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">AutoPickVlanId</name>
      <value xsi:type="xsd:string">>true</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">UseServiceInst</name>
      <value xsi:type="xsd:string">>true</value>
    </item>
  </properties>
</objectPath>
<objectPath xsi:type="ns1:CIMObjectPath">
  <className xsi:type="xsd:string">EvcServiceInstanceAttrs</className>
  <properties xsi:type="ns1:CIMPropertyList"
    soapenc:arrayType="ns1:CIMProperty[]">
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">BothTags</name>
      <value xsi:type="xsd:string">>false</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">AutoPickServiceInstId</name>
      <value xsi:type="xsd:string">>true</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">OuterVlanRange</name>
      <value xsi:type="xsd:string">243</value>
    </item>
  </properties>
</objectPath>
<objectPath xsi:type="ns1:CIMObjectPath">
  <className xsi:type="xsd:string">EvcUNIInterfaceAttrs</className>
  <properties xsi:type="ns1:CIMPropertyList"
    soapenc:arrayType="ns1:CIMProperty[]">
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">Shutdown</name>
      <value xsi:type="xsd:string">>true</value>
    </item>
    <item xsi:type="ns1:CIMProperty">

```

```

        <name xsi:type="xsd:string">PeIntfDesc</name>
        <value xsi:type="xsd:string">*** AC1 ***</value>
    </item>
</properties>
</objectPath>
</objectPath>

<!-- L2Access Links -->

<objectPath xsi:type="ns1:CIMObjectPath">
    <className xsi:type="xsd:string">EvcLink</className>
    <properties xsi:type="ns1:CIMPropertyList"
        soapenc:arrayType="ns1:CIMProperty[]">
        <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">Upe</name>
            <value xsi:type="xsd:string">iscind-3750-1</value>
        </item>
        <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">UniInftId</name>
            <value xsi:type="xsd:string">FastEthernet1/0/12</value>
        </item>
        <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">NPC</name>
            <value xsi:type="xsd:string">31</value>
        </item>
    </properties>
    <objectPath xsi:type="ns1:CIMObjectPath">
        <className xsi:type="xsd:string">EvcETHLinkAttrs</className>
        <properties xsi:type="ns1:CIMPropertyList"
            soapenc:arrayType="ns1:CIMProperty[]">
            <item xsi:type="ns1:CIMProperty">
                <name xsi:type="xsd:string">UseServiceInst</name>
                <value xsi:type="xsd:string">>false</value>
            </item>
            <item xsi:type="ns1:CIMProperty">
                <name xsi:type="xsd:string">SystemMTU</name>
                <value xsi:type="xsd:string">1685</value>
            </item>
            <item xsi:type="ns1:CIMProperty">
                <name xsi:type="xsd:string">AutoPickVlanId</name>
                <value xsi:type="xsd:string">>true</value>
            </item>
        </properties>
    </objectPath>

    <objectPath xsi:type="ns1:CIMObjectPath">
        <className xsi:type="xsd:string">EvcUNIProtocolTunnelAttrs</className>
        <properties xsi:type="ns1:CIMPropertyList"
            soapenc:arrayType="ns1:CIMProperty[]">
            <item xsi:type="ns1:CIMProperty">
                <name xsi:type="xsd:string">ProtocolTunnelling</name>
                <value xsi:type="xsd:string">>true</value>
            </item>
            <item xsi:type="ns1:CIMProperty">
                <name xsi:type="xsd:string">VtpDropThreshold</name>
                <value xsi:type="xsd:string">10</value>
            </item>

            <item xsi:type="ns1:CIMProperty">
                <name xsi:type="xsd:string">CdpDropThreshold</name>
                <value xsi:type="xsd:string">20</value>
            </item>
            <item xsi:type="ns1:CIMProperty">
                <name xsi:type="xsd:string">StpDropThreshold</name>

```

```

    <value xsi:type="xsd:string">27</value>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">StpThreshold</name>
    <value xsi:type="xsd:string">27</value>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">VtpThreshold</name>
    <value xsi:type="xsd:string">2007</value>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">CdpThreshold</name>
    <value xsi:type="xsd:string">2007</value>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">CdpEnable</name>
    <value xsi:type="xsd:string">true</value>
  </item>
  <item xsi:type="ns1:CIMProperty">
    <name xsi:type="xsd:string">VtpEnable</name>
    <value xsi:type="xsd:string">true</value>
  </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">StpEnable</name>
      <value xsi:type="xsd:string">true</value>
    </item>
  </properties>
</objectPath>
<objectPath xsi:type="ns1:CIMObjectPath">
  <className xsi:type="xsd:string">EvcUNIInterfaceAttrs</className>
  <properties xsi:type="ns1:CIMPropertyList"
    soapenc:arrayType="ns1:CIMProperty[]">
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">PortSecurity</name>
      <value xsi:type="xsd:string">true</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">SpeedType</name>
      <value xsi:type="xsd:string">Auto</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">DuplexType</name>
      <value xsi:type="xsd:string">Full</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">Shutdown</name>
      <value xsi:type="xsd:string">true</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">ViolationActionType</name>
      <value xsi:type="xsd:string">RESTRICT</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">Aging</name>
      <value xsi:type="xsd:string">1244</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">MacAddress</name>
      <value xsi:type="xsd:string">2458</value>
    </item>
    <item xsi:type="ns1:CIMProperty">
      <name xsi:type="xsd:string">BroadcastTraffic</name>
      <value xsi:type="xsd:string">54</value>
    </item>
  </properties>

```

```

        <item xsi:type="ns1:CIMProperty">
          <name xsi:type="xsd:string">MulticastTraffic</name>
          <value xsi:type="xsd:string">55</value>
        </item>
        <item xsi:type="ns1:CIMProperty">
          <name xsi:type="xsd:string">UnicastTraffic</name>
          <value xsi:type="xsd:string">15</value>
        </item>
        <item xsi:type="ns1:CIMProperty">
          <name xsi:type="xsd:string">StdUniPort</name>
          <value xsi:type="xsd:string">true</value>
        </item>
        <item xsi:type="ns1:CIMProperty">
          <name xsi:type="xsd:string">DisableCDP</name>
          <value xsi:type="xsd:string">true</value>
        </item>
        <item xsi:type="ns1:CIMProperty">
          <name xsi:type="xsd:string">PeIntfDesc</name>
          <value xsi:type="xsd:string">Description</value>
        </item>
        <item xsi:type="ns1:CIMProperty">
          <name xsi:type="xsd:string">PortSecurity</name>
          <value xsi:type="xsd:string">true</value>
        </item>
        <item xsi:type="ns1:CIMProperty">
          <name xsi:type="xsd:string">Shutdown</name>
          <value xsi:type="xsd:string">true</value>
        </item>
        <item xsi:type="ns1:CIMProperty">
          <name xsi:type="xsd:string">UniKeepAlive</name>
          <value xsi:type="xsd:string">true</value>
        </item>
      </properties>
    </objectPath>
  </objectPath>

  </objectPath>
</objectPath>
</action>
</actions>
</ns1:performBatchOperation>
</soapenv:Body>
</soapenv:Envelope>

```

End-to-End Provisioning Process

This section describes the process for using the API to provision FlexUNI/EVC, and includes the required operation, object definition (className), and parameter definitions.

Process Summary

This FlexUNI/EVC provisioning example uses the following processes:

1. Create device groups (optional).
2. Create devices.
3. Collect device configurations.

4. Create provider.
5. Create regions.
6. Declare devices as PEs.
7. Create access domains and assign PEs to them.
8. Create customer.
9. Create sites.
10. Create named physical circuits.
11. Create VLAN ID pool.
12. Create VC ID pool.
13. Create VPN.
14. Create FlexUNI/EVC service definition (policy).
15. Create FlexUNI/EVC service request.

Prerequisites

For security reasons, ISC requires the virtual terminal protocol (VTP) to be configured in transparent mode on all switches before provisioning FlexUNI/EVC service requests.

To set the VTP mode, enter the following Cisco IOS commands:

```
configure terminal
vtp mode transparent
```

Enter the following Cisco IOS command to verify that the VTP has changed to transparent mode:

```
Show vtp status
```

Detailed Process

To provision FlexUNI/EVC using ISC API, an EVC service policy and an EVC service request are required and only one subtype will be defined and of type Evc.

The EVC service policy/service definition specifies the attributes related to the EVC links and non-FlexUNI/EVC links. The service request defines the device interfaces for each EVC/non-EVC link connection and can optionally override policy attributes in each of the corresponding links.

When you deploy an EVC service request using a service order, the attributes specified in the service definition are applied to the devices and interfaces listed in the service request, along with the attributes for each of the EVC/non-EVC links.

This section describes the process for provisioning FlexUNI/EVC using XML examples.

The complete list of XML examples for FlexUNI/EVC is available at:

http://www.cisco.com/en/US/docs/net_mgmt/ip_solution_center/5.1/developer/reference/xmlapi.zip



Note

For clarity, this provisioning process shows each step as a separate XML request. Many of these steps can be combined using **performBatchOperations**.

Step 1 Create device groups (optional).

Table 9-1 Create Device Group

Operation	className	Required Parameters
createInstance	DeviceGroup	Name

XML Examples:

- CreateDeviceGroup.xml



Tip

If you plan to create device groups, create the empty device groups before you create the devices. As you create each device, add the associated device group name as a key property in the create device XML request.

In the following example, the device group (CustDev) is added as a key property when creating the device **CiscoRouter**:

```
<ns1:createInstance>
  <objectPath xsi:type="ns1:CIMObjectPath">
    <className xsi:type="xsd:string">CiscoRouter</className>
    <properties xsi:type="ns1:CIMPropertyList"
soapenc:arrayType="ns1:CIMProperty[]">
      <item xsi:type="ns1:CIMProperty">
        <name xsi:type="xsd:string">DeviceGroup</name>
        <value xsi:type="xsd:string">CustDev</value>
      </item>
      <item xsi:type="ns1:CIMProperty">
        <name xsi:type="xsd:string">CfgUpDnldMech</name>
        <value xsi:type="xsd:string">DEFAULT</value>
      </item>
      <item xsi:type="ns1:CIMProperty">
        <name xsi:type="xsd:string">TransportMechanism</name>
        <value xsi:type="xsd:string">DEFAULT</value>
      </item>
      <item xsi:type="ns1:CIMProperty">
        <name xsi:type="xsd:string">Password</name>
        <value xsi:type="xsd:string">vpnsc</value>
      </item>
    </properties>
  </objectPath>
</ns1:createInstance>
```

Step 2 Create devices.

Every network element that ISC manages must be defined as a device in the system. An element is any device from which ISC can collect configuration information.

Table 9-2 Create Devices

Operation	className	Required Parameters
createInstance	<ul style="list-style-type: none"> • CiscoRouter • CatOS 	One or more of the following: <ul style="list-style-type: none"> • ManagementIPAddress • HostName • DomainName

XML Examples:

- CreateCiscoRouter.xml
- CreateCat.xml

Step 3 Collect device configurations.

A device configuration collection is a task. This task uploads the current configuration from the device to the ISC database. The collection task is executed through a service request, and the service request is scheduled through a service order.

**Note**

The service request name must be unique for each NBI API.

Table 9-3 Collect Device Configurations

Operation	className	Required Parameters
createInstance	ServiceOrder	<ul style="list-style-type: none"> • ServiceName • NumberofRequests • ServiceRequest
	ServiceRequest	<ul style="list-style-type: none"> • RequestName • Type=Task • ServiceRequestDetails
	ServiceRequestDetails	<ul style="list-style-type: none"> • SubType=COLLECTION • Device (or DeviceGroup) <p>Note You must select at least one device or device group.</p> <ul style="list-style-type: none"> • RetrieveVersion=true • RetrieveDeviceInterfaces=true

XML Examples:

- CreateTaskServiceOrderCollection.xml

Step 4 Create a provider.

The provider is the administrative domain of an ISP, with one BGP autonomous system (AS) number. The network owned by the provider is called the backbone network. If an ISP has two AS numbers, you must define it as two provider administrative domains.

Table 9-4 Create a Provider

Operation	className	Required Parameters
createInstance	Provider	<ul style="list-style-type: none"> • Name • AsNumber

XML Examples:

CreateProvider.xml

- Step 5** Create regions.
Each provider can contain multiple regions.

Table 9-5 Create Regions

Operation	className	Required Parameters
createInstance	Region	<ul style="list-style-type: none"> Name Provider

XML Examples:

CreateRegion.xml

- Step 6** Declare devices as PEs.
The XML request that assigns a PE role to a device is also used to:
- Assign PE devices to Regions/Provider
 - Specify interface information

Table 9-6 Create PE Devices

Operation	className	Required Parameters
createInstance	PE	<ul style="list-style-type: none"> Provider Region Role= <ul style="list-style-type: none"> PE_CLE PE_POP Device Interface

XML Examples:

CreatePE.xml

- Step 7** Create access domains.
ISC assigns a VLAN ID to the attachment circuit from the VLAN ID pool. Select all PE-POP devices to be associated with this domain, and later in the process, when VLAN ID pools are created, the PE-POP is automatically assigned a VLAN ID.

**Note**

If provisioning for an Ethernet provider core, all PE devices must be in the same access domain and a single VLAN ID is used for the entire VPLS VPN. If provisioning for an MPLS provider core, the PE devices can be in different access domains.

Table 9-7 Create Access Domains

Operation	className	Required Parameters
createInstance	AccessDomain	<ul style="list-style-type: none"> Name Provider PE (Role must be PE_POP)

XML Examples:

- CreateAccessDomain.xml

Step 8 Create a customer.

A customer is a requestor of VPN services. Each customer can contain multiple customer sites. Each site belongs to only one customer and can contain multiple CPEs.

Table 9-8 Create Organization

Operation	className	Required Parameters
createInstance	Organization	<ul style="list-style-type: none"> Name

XML Examples:

- CreateOrganization.xml

Step 9 Create sites and assign customers (**Organizations**) to them.**Table 9-9 Create Sites**

Operation	className	Required Parameters
createInstance	Site	<ul style="list-style-type: none"> Name Organization

XML Examples:

- CreateSite.xml

Step 10 Create Named Physical Circuits (NPCs). This step is not required if you plan to manually configure the physical links in the VPLS service request (Step 16).

Create an NPC for each attachment circuit (CE/UNI to PE-POP link). If there are intermediate devices, those links must also be added to the NPC using **PhysicalLink**.

**Note**

When creating an NPC, you must specify the CPE as the source device and the PE-POP as the destination device. If there are intermediate devices, such as PE-CLEs, the source and destination devices must follow the direction of the CPE to PE-POP link.

Table 9-10 Create Named Physical Circuits

Operation	className	Required Parameters
createInstance	NamedPhysicalCircuit	PhysicalLink
	PhysicalLink	<ul style="list-style-type: none"> • SrcDevice • DestDevice • SrcIfName • DestIfName

You can create one XML request for the **NamedPhysicalCircuit** and include multiple **PhysicalLinks** as shown in the following example:

```
<ns1:createInstance>
  <objectPath xsi:type="ns1:CIMObjectPath">
    <className xsi:type="xsd:string">NamedPhysicalCircuit</className>
    <properties xsi:type="ns1:CIMPropertyList"
      soapenc:arrayType="ns1:CIMProperty[]">
    </properties>
    <objectPath xsi:type="ns1:CIMObjectPath">
      <className xsi:type="xsd:string">PhysicalLink</className>
      <properties xsi:type="ns1:CIMPropertyList"
        soapenc:arrayType="ns1:CIMProperty[]">
        <item xsi:type="ns1:CIMProperty">
          <name xsi:type="xsd:string">SrcDevice</name>
          <value xsi:type="xsd:string">Device1</value> </item>
          <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">DestDevice</name>
            <value xsi:type="xsd:string">Device2</value> </item>
          <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">SrcIfName</name>
            <value xsi:type="xsd:string">Intf1/0</value> </item>
          <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">DestIfName</name>
            <value xsi:type="xsd:string">Intf2/1</value> </item>
        </properties>
      <objectPath xsi:type="ns1:CIMObjectPath">
        <className xsi:type="xsd:string">PhysicalLink</className>
        <properties xsi:type="ns1:CIMPropertyList"
          soapenc:arrayType="ns1:CIMProperty[]">
          <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">SrcDevice</name>
            <value xsi:type="xsd:string">Device3</value> </item>
          <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">DestDevice</name>
            <value xsi:type="xsd:string">Device5</value> </item>
          <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">SrcIfName</name>
            <value xsi:type="xsd:string">Intf3/0</value> </item>
          <item xsi:type="ns1:CIMProperty">
            <name xsi:type="xsd:string">DestIfName</name>
            <value xsi:type="xsd:string">Intf5/1</value> </item>
        </properties>
      </objectPath>
    </objectPath>
  </ns1:createInstance>
```

XML Examples:

- CreateNamedPhysicalCircuit.xml
- CreateNamedPhysicalCircuitRing.xml—Use this example if there is a Ring topology configuration on the PE-CLEs.
- CreateNamedPhysicalCircuitRingExisting.xml—Use this example to reference an NPC ring that has already been created.

Step 11 Create VLAN ID pool.

Create a VLAN ID pool, specify a range, and associate it to an access domain to manually enter the parameters for a VLAN ID pool. To have ISC automatically assign VLANs to the attachment circuits, specify the **Autopick_Vlan_ID** keyword in the service definition (Step 15).

When provisioning for an Ethernet core, VPLS service requests use the VLAN ID to reference the attachment circuits.

Table 9-11 Create VLAN ID Pools

Operation	className	Required Parameters
createInstance	VlanIdPool	<ul style="list-style-type: none"> • Start • Size • AssocClassType • AssocClassId

XML Examples:

- CreateVlanIdPool.xml

Step 12 Create VC ID pool.

For a VPLS VPN, all PE-POP routers use the same VC ID to establish the virtual circuit (VC) across the provider core. The VC ID is also the VPN ID and is assigned from the VC ID pool. ISC ensures that VC IDs are unique among VPLS VPNs.

**Note**

A VC ID pool is global (not associated with a provider or organization).

Table 9-12 Create VC ID Pool

Operation	className	Required Parameters
createInstance	VcIdPool	<ul style="list-style-type: none"> • Start • Size

XML Examples:

- CreateVcIdPool.xml

Step 13 Create a VPN.

When you create a VPN to use in VPLS provisioning, you must enable it to support VPLS (**VplsVpn=true**), and define the type of service (**ERS** or **EWS**).

ISC assigns a VPN ID (from the VC ID pool) to each VPLS VPN.

Table 9-13 Create VPNs

Operation	className	Required Parameters
createInstance	VPN	<ul style="list-style-type: none"> • Name • Organization or Provider • VplsVpn=true • ServiceType= <ul style="list-style-type: none"> - ERS - EWS

XML Examples:

- CreateVPN.xml

Step 14 Create FlexUNI/EVC service definition (policy).

A FlexUNI/EVC service definition specifies the core type, service subtype, device properties, and the attributes common to all attachment circuits.

Table 9-14 Create a FlexUNI/EVC Service Definition

Operation	className	Required Parameters
createInstance	ServiceDefinition	<ul style="list-style-type: none"> Name Type=Evc Provider or Organization <p>Note If you do not specify a Provider or Organization, the service policy is global</p> <ul style="list-style-type: none"> ServiceDefinitionDetails
	ServiceDefinitionDetails	<ul style="list-style-type: none"> SubType=Evc Core_Type= <ul style="list-style-type: none"> PseudoWire VPLS LOCAL N_PE_Encap and U_PE_Encap= <ul style="list-style-type: none"> DOT1Q DOT1QTUNNEL ACCESS EvcUNIMacACLAddresses <ul style="list-style-type: none"> MacAddress (You can list multiple secure MAC addresses) AutoPickBDVlanId

**Note**

If **AutoPickBDVlanId=true**, be sure that an access domain is attached to the PE-POP, and a VLAN ID pool is assigned to the access domain (Step 7).

XML Examples:

- CreateEVCServDefn_LOCAL.xml
- CreateEVCServDefn_PW.xml
- CreateEVCServDefn_VPLS.xml

Step 15 Create FlexUNI/EVC service request.

A FlexUNI/EVC service request defines the service definition and VPN, assigns interfaces and attributes for each attachment circuit (**EvcLink**), and applies any template information.

Table 9-15 Create a FlexUNI/EVC Service Request

Operation	className	Required Parameters
createInstance	ServiceOrder	<ul style="list-style-type: none"> • ServiceName • NumberOfRequests • Provider or Organization <p>Note If you do not specify a Provider or Organization, the service policy is global.</p> <ul style="list-style-type: none"> • ServiceRequest
	ServiceRequest	<ul style="list-style-type: none"> • RequestName • Type=Evc • ServiceRequestDetails
	ServiceRequestDetails	<ul style="list-style-type: none"> • ServiceDefinition <ul style="list-style-type: none"> – ServiceDefinitionType=Evc • VPN • EvcLink
	EvcLink	<ul style="list-style-type: none"> • NPC • EvcUNIMacACLAddresses • SRAssociatedTemplate (optional) <p>Note See the “Templates in a Service Request” section on page 4-16.</p>

**Tip**

Record the **LocatorId** value from the XML response for the service request. The locator ID is required for subsequent service request tasks.

XML Example:

- CreateEVCSERVICEORDER_LOCAL.xml
- CreateEVCSERVICEORDER_VPLS.xml
- CreateEVCSERVICEORDER_PW.xml

Auditing Service Requests

A configuration audit occurs automatically each time you deploy a service request. During this configuration audit, ISC verifies that all Cisco IOS commands are present and that they have the correct syntax. An audit also verifies that there were no errors during deployment by examining the commands configured by the service request on the target devices. If the device configuration does not match what is defined in the service request, the audit flags a warning and sets the service request to a *Failed Audit* or *Lost* state.

If you do not want the configuration audit to occur, change the value for the **Audit** parameter. The **Audit** parameter supports these values:

- **Audit**—This is the default. A successfully deployed service request is automatically audited unless this flag is changed.
- **NoAudit**—Do not perform a configuration audit when the service request is deployed.
- **ForceAudit**—Perform a configuration audit even if the service request deployment is not successful.

You can use the Audit parameter with a **Create**, **Modify**, or **Decommission** service request or a **Deployment** task. See the [“Service Decommission” section on page 3-10](#) for more information. To perform a configuration audit as a separate task, see the [“Configuration Audit” section on page 3-11](#).