Pseudowire Stitching

Pseudowire stitching is a technique where a pair of independent pseudowires are configured in such a way that they behave like a single point to point pseudowire. It is also called as multi-segment pseudowire (MS-PW).

Pseudowire stitching can be achieved using cross-connect.

Benefits of Pseudowire Stitching

Pseudowire stitching is useful in scenarios where a large network needs to be divided into small pieces, for example, core and metro side, each part of the network will be stitched to achieve end-to-end seamless connectivity.

Restrictions for Pseudowire Stitching

For Cisco ASR 900 RSP3 module, on pseudowire stitching point regular hardware programming is be seen because in this case pseudowire has to swap the label.

Configuring Pseudowire Stitching

Below is an example with three nodes connected:

Router IDs are:

- R1 - 1.1.1.1

- R2 - 2.2.2.2

- R3 - 3.3.3.3

Configuration on R1 node:

```
interface GigabitEthernet0/1/0
 no ip address
```

```
 negotiation auto
 service instance 1 ethernet
  encapsulation dot1q 1
  xconnect 2.2.2.2 100 encapsulation mpls
 !
```

Configuration on R2 node: (Stitching point)

```
l2vpn xconnect context PW
 member 1.1.1.1 100 encapsulation mpls
 member 3.3.3.3 100 encapsulation mpls
```

Configuration on R3 node:

```
interface GigabitEthernet0/1/0
 no ip address
 negotiation auto
 service instance 1 ethernet
  encapsulation dot1q 1
  xconnect 2.2.2.2 100 encapsulation mpls
 !
```

Verifying Pseudowire Stitching

```
R2#show mpls l2transport vc

Local intf     Local circuit              Dest address    VC ID      Status
-------------  -------------------------  --------------- ---------- ----------
pw100010       3.3.3.3 100                1.1.1.1         100        UP
pw100009       1.1.1.1 100                3.3.3.3         100        UP
```