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qos-mpls lab
1. OSPF
2. mpls
3. xconnect
=====P=====
---MAIN---
mpls ip
mpls label protocol ldp
mpls traffic-eng tunnels
mpls ldp router-id loX
---INTERFACES-
mpls ip
mpls traffic-eng tunnels
=====PE=====
---MAIN---
mpls ip
mpls label protocol ldp
mpls traffic-eng tunnels
mpls ldp router-id loX

---INTERFACES-
mpls ip
mpls traffic-eng tunnels
--- PW ---
pseudowire-class PW172
 encapsulation mpls
 interworking ethernet

--- PE1 IF towards CE1 ---
int f2/0
xconnect <loopback-reachable-PE2//86.2.0.2> <VC-ID//16> encapsulation mpls
xconnect <loopback-reachable-PE2//86.2.0.2> <VC-ID//16> pw-class <PW-CLASS>
--- PE2 IF towards CE2 ---
int f2/0
xconnect <loopback-reachable-PE1//86.1.0.2> <VC-ID//16> encapsulation mpls
xconnect <loopback-reachable-PE1//86.1.0.2> <VC-ID//16> pw-class <PW-CLASS>
---CE1---
f2/0 172.16.0.1/24
---CE2---
f2/0 172.16.0.2/24

====VERIFICATION====
pe-1#sh xconnect all
Legend:    XC ST=Xconnect State  S1=Segment1 State  S2=Segment2 State
  UP=Up       DN=Down           AD=Admin Down      IA=Inactive
  SB=Standby  RV=Recovering     NH=No Hardware
XC ST  Segment 1                        S1 Segment 2                          S2
------+-------------------------------+--+--------------------------------+--
UP     ac   Fa2/0(Ethernet)             UP mpls 86.2.0.2:16                   UP
pe-1#

pe-2#sh xconnect all
Legend:    XC ST=Xconnect State  S1=Segment1 State  S2=Segment2 State
  UP=Up       DN=Down           AD=Admin Down      IA=Inactive
  SB=Standby  RV=Recovering     NH=No Hardware
XC ST  Segment 1                        S1 Segment 2                          S2
------+-------------------------------+--+--------------------------------+--
UP     ac   Fa2/0(Ethernet)             UP mpls 86.1.0.2:16                   UP
ce-1#sh arp
Protocol  Address          Age (min)  Hardware Addr   Type   Interface
Internet  172.16.0.1             -   ca05.0471.0038  ARPA   FastEthernet2/0
Internet  172.16.0.2            10   ca06.0473.0038  ARPA   FastEthernet2/0
ce-1#ping 172.16.0.2
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 172.16.0.2, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 80/81/84 ms

ce-2#sh arp
Protocol  Address          Age (min)  Hardware Addr   Type   Interface
Internet  172.16.0.1              47   ca05.0471.0038  ARPA   FastEthernet2/0
Internet  172.16.0.2               -   ca06.0473.0038  ARPA   FastEthernet2/0
ce-2#ping 172.16.0.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 172.16.0.1, timeout is 2 seconds:
!!!!!
```