

OcNOS Configuration of L3 VPN Service across LDP and SR node:

LDP Node 1:

```
NODE1#show running-config

!

no service password-encryption

!

hostname NODE1

!

logging monitor 7

!

ip vrf management

!

ip vrf VRF1
  rd 100:2
  route-target both 100:2

!

mpls l2-circuit test 1 3.3.3.3

!

ip domain-lookup
bridge 1 protocol ieee vlan-bridge
spanning-tree mode provider-rstp

!

ip pim register-rp-reachability
ip pim vrf VRF1 register-rp-reachability

!

router ldp
  router-id 1.1.1.1
  targeted-peer ipv4 3.3.3.3
```

```
exit-targeted-peer-mode
transport-address ipv4 1.1.1.1
!
interface lo
  mtu 65536
  ip address 127.0.0.1/8
  ip address 1.1.1.1/32 secondary
  ipv6 address ::1/128
  ip router isis 1
!
interface eth1
  ip vrf forwarding VRF1
  ip address 10.10.10.2/24
!
interface eth2
  ip address 20.20.20.1/24
  ip router isis 1
  enable-ldp ipv4
  label-switching
!
interface eth3
  ip address 40.40.40.1/24
  ip router isis 1
  enable-ldp ipv4
  label-switching
!
interface eth4
  ip address 80.80.80.2/24
!
```

```
interface eth5
switchport
bridge-group 1
switchport mode access
mpls-vpls v1
    ac-admin-status up
exit-if-vpls
!
interface eth6
!
mpls vpls v1 11
signaling ldp
vpls-peer 3.3.3.3
exit-signaling
!
Imp-configuration
!
router isis 1
metric-style wide
net 49.0010.0000.0001.00
redistribute static
!
router bgp 100
neighbor 3.3.3.3 remote-as 100
neighbor 3.3.3.3 update-source 1.1.1.1
address-family vpnv4 unicast
neighbor 3.3.3.3 activate
exit-address-family
!
```

```
address-family ipv4 vrf VRF1
network 10.10.10.0/24
redistribute static
exit-address-family
!
ip route 9.9.9.9/32 80.80.80.1
ip route vrf VRF1 7.7.7.7/32 eth1
!
line con 0
login
line vty 0 39
login
!
end
```

SR Mapping Server Node 2:

```
NODE2#show running-config
!
no service password-encryption
!
hostname NODE2
!
logging monitor 7
!
ip vrf management
!
ip domain-lookup
spanning-tree mode provider-rstp
!
```

```
segment-routing mapping-server
prefix-sid-map address-family ipv4
  1.1.1.1/32 10 range 1
  3.3.3.3/32 20 range 1
  6.6.6.6/32 60 range 1
  7.7.7.7/32 70 range 1
  8.8.8.8/32 80 range 1
  9.9.9.9/32 90 range 1
exit-ms-af
!
ip pim register-rp-reachability
!
router ldp
router-id 2.2.2.2
!
interface lo
mtu 65536
ip address 127.0.0.1/8
ip address 2.2.2.2/32 secondary
ipv6 address ::1/128
ip router isis 1
!
interface eth1
ip address 70.70.70.1/24
ip router isis 1
label-switching
!
interface eth2
ip address 20.20.20.2/24
```

```
ip router isis 1
enable-ldp ipv4
label-switching
!
interface eth3
ip address 30.30.30.1/24
ip router isis 1
label-switching
!
interface eth4
!
interface eth5
!
interface eth6
!
lmp-configuration
!
router isis 1
metric-style wide
mpls traffic-eng router-id 2.2.2.2
mpls traffic-eng level-1
mpls traffic-eng level-2
net 49.0010.0000.0002.00
segment-routing mpls
segment-routing prefix-sid-map advertise-local
!
line con 0
login
line vty 0 39
```

```
login
!  
end
```

SR Client Node 3:

```
NODE3#show running-config  
!  
no service password-encryption  
!  
hostname NODE3  
!  
logging monitor 7  
!  
ip vrf management  
!  
ip vrf VRF1  
  rd 100:2  
  route-target both 100:2  
!  
mpls l2-circuit test 1 1.1.1.1  
!  
ip domain-lookup  
bridge 1 protocol ieee vlan-bridge  
spanning-tree mode provider-rstp  
!  
ip pim register-rp-reachability  
ip pim vrf VRF1 register-rp-reachability  
!
```

```
router ldp
router-id 3.3.3.3
targeted-peer ipv4 1.1.1.1
  exit-targeted-peer-mode
transport-address ipv4 3.3.3.3
!
interface lo
  mtu 65536
  ip address 127.0.0.1/8
  ip address 3.3.3.3/32 secondary
  ipv6 address ::1/128
  prefix-sid index 30
  ip router isis 1
!
interface eth1
  ip vrf forwarding VRF1
  ip address 60.60.60.1/24
!
interface eth2
  ip address 50.50.50.2/24
  ip router isis 1
  enable-ldp ipv4
  label-switching
!
interface eth3
  ip address 30.30.30.2/24
  ip router isis 1
  label-switching
!
```



```
interface eth4
ip address 90.90.90.1/24
!
interface eth5
switchport
bridge-group 1
switchport mode access
mpls-vpls v1
    ac-admin-status up
exit-if-vpls
!
interface eth6
!
mpls vpls v1 11
signaling ldp
vpls-peer 1.1.1.1
exit-signaling
!
lmp-configuration
!
router isis 1
metric-style wide
mpls traffic-eng router-id 3.3.3.3
mpls traffic-eng level-1
mpls traffic-eng level-2
net 49.0010.0000.0003.00
redistribute static
segment-routing mpls
!
```

```
router bgp 100
neighbor 1.1.1.1 remote-as 100
neighbor 1.1.1.1 update-source 3.3.3.3
address-family vpnv4 unicast
neighbor 1.1.1.1 activate
exit-address-family
!
address-family ipv4 vrf VRF1
network 60.60.60.0/24
redistribute static
exit-address-family
!
ip route 8.8.8.8/32 90.90.90.2
ip route vrf VRF1 6.6.6.6/32 eth1
!
line con 0
login
line vty 0 39
login
!
end
```

Host Node 1:

```
HOST1#show running-config
!
no service password-encryption
!
hostname HOST1
!
```

```
logging monitor 7
!
ip vrf management
!
ip domain-lookup
spanning-tree mode provider-rstp
!
ip pim register-rp-reachability
!
interface lo
  mtu 65536
  ip address 127.0.0.1/8
  ip address 7.7.7.7/32 secondary
  ip address 9.9.9.9/32 secondary
  ipv6 address ::1/128
!
interface eth1
  ip address 10.10.10.1/24
!
interface eth2
!
interface eth3
!
interface eth4
  ip address 80.80.80.1/24
!
interface eth5
  ip address 100.100.100.1/24
!
```

```
interface eth6
!
Imp-configuration
!
ip route 6.6.6.6/32 10.10.10.2
ip route 8.8.8.8/32 80.80.80.2
!
line con 0
login
line vty 0 39
login
!
end
```

Host Node 2:

```
HOST2#show running-config
!
no service password-encryption
!
hostname HOST2
!
logging monitor 7
!
ip vrf management
!
ip domain-lookup
spanning-tree mode provider-rstp
!
ip pim register-rp-reachability
!
```

```
interface lo
mtu 65536
ip address 127.0.0.1/8
ip address 6.6.6.6/32 secondary
ip address 8.8.8.8/32 secondary
ipv6 address ::1/128
!
interface eth1
ip address 60.60.60.2/24
!
interface eth2
!
interface eth3
!
interface eth4
ip address 90.90.90.2/24
!
interface eth5
ip address 100.100.100.2/24
!
interface eth6
!
Imp-configuration
!
ip route 7.7.7.7/32 60.60.60.1
ip route 9.9.9.9/32 90.90.90.1
!
line con 0
login
```

```
line vty 0 39
```

```
login
```

```
!
```

```
end
```