

# Configure and Verify LACP ESI Multi-Homing in EVPN VXLAN

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## Introduction

This document describes how to deploy Link Aggregation Control Protocol (LACP) Active/Active EVPN Virtual Extensible LAN (VXLAN) on Nexus 9000.

## Prerequisites

### Requirements

Cisco recommends that you have knowledge of these topics:

- Border Gateway Protocol (BGP)
- Open Shortest Path First (OSPF)
- Ethernet VPN (EVPN)
- Virtual vPC
- vPC
- Ethernet Segment

### Components Used

The information in this document is based on these software and hardware versions:

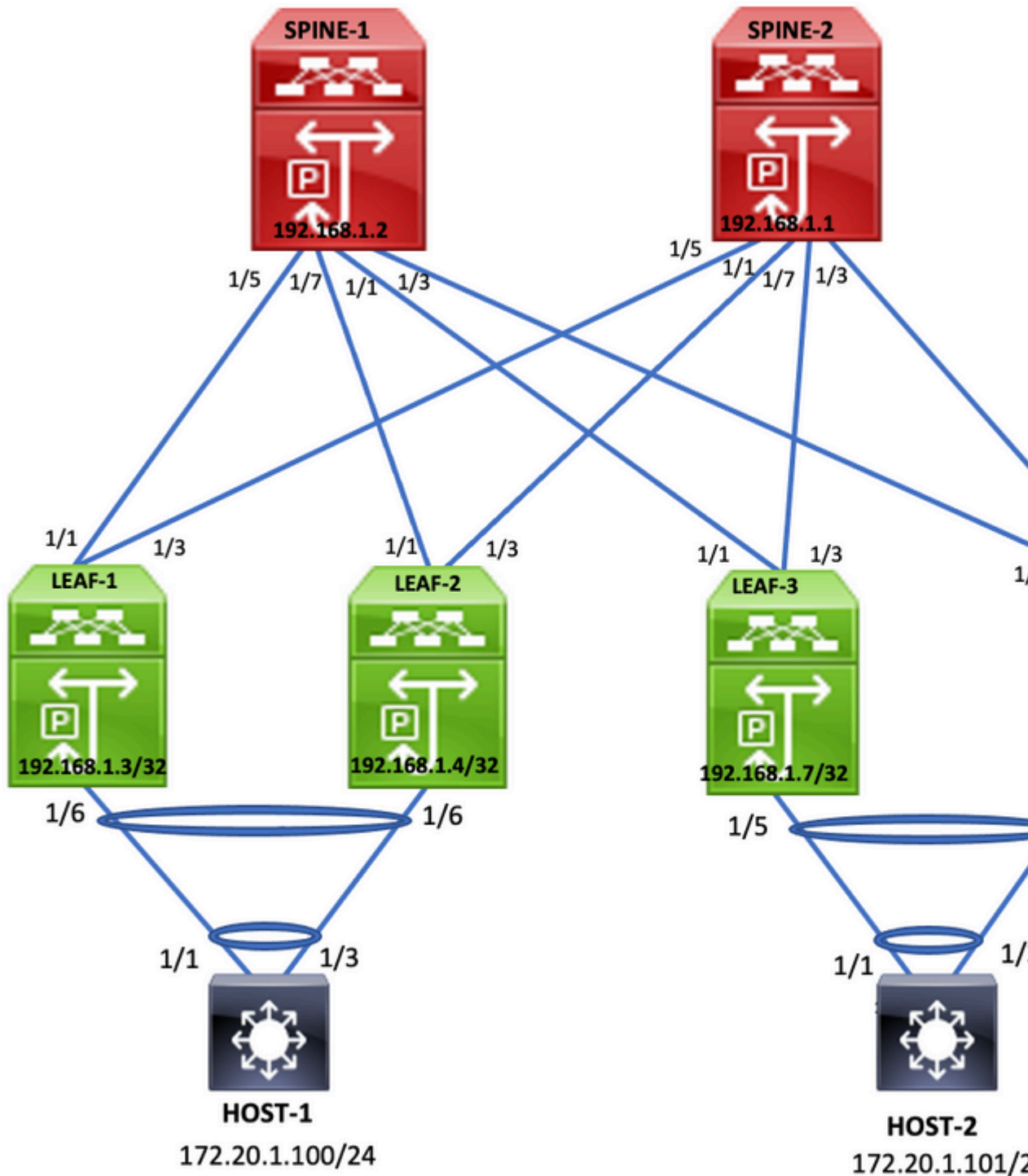
- Cisco Nexus 9372PX-E that runs Release 9.3(9) [Leaf]
- Cisco Nexus 93180YC-FX that runs Release 10.2(2)F [Spine]
- Cisco Nexus 3548 Chassis that runs Release 6.0(2)A8(11b) [Host]

The information in this document was created from the devices in a specific lab environment. All of the

devices used in this document started with a cleared (default) configuration. If your network is live, ensure that you understand the potential impact of any command.

## Configure

### Network Diagram



### Spine-1

```
hostname Spine1

feature scp-server
feature sftp-server
nv overlay evpn
feature ospf
feature bgp
feature pim
feature nv overlay

copp profile strict

ip pim rp-address 192.168.1.1 group-list 224.0.0.0/4
ip pim ssm range 232.0.0.0/8

interface Ethernet1/1
ip address 172.16.4.2/30
ip ospf network point-to-point
ip router ospf 100 area 0.0.0.0
ip pim sparse-mode
no shutdown

interface Ethernet1/3
mtu 9216
ip address 172.16.6.2/30
ip ospf network point-to-point
ip router ospf 100 area 0.0.0.0
ip pim sparse-mode
no shutdown

interface Ethernet1/5
ip address 172.16.0.2/30
ip ospf network point-to-point
ip router ospf 100 area 0.0.0.0
ip pim sparse-mode
no shutdown

interface Ethernet1/7
mtu 9216
ip address 172.16.2.2/30
ip ospf network point-to-point
ip router ospf 100 area 0.0.0.0
ip pim sparse-mode
no shutdown

interface loopback0
ip address 192.168.1.2/32
ip router ospf 100 area 0.0.0.0
ip pim sparse-mode
icam monitor scale

router ospf 100
router-id 192.168.1.2
router bgp 100
router-id 192.168.1.2
address-family ipv4 unicast
address-family l2vpn evpn
maximum-paths ibgp 32
additional-paths send
additional-paths receive
neighbor 192.168.1.3
remote-as 100
```

```
update-source loopback0
address-family ipv4 unicast
  send-community extended
  route-reflector-client
address-family l2vpn evpn
  send-community extended
  route-reflector-client
neighbor 192.168.1.4
  remote-as 100
update-source loopback0
address-family ipv4 unicast
  send-community extended
  route-reflector-client
address-family l2vpn evpn
  send-community extended
  route-reflector-client
neighbor 192.168.1.7
  remote-as 100
update-source loopback0
address-family ipv4 unicast
  send-community extended
  route-reflector-client
address-family l2vpn evpn
  send-community extended
  route-reflector-client
neighbor 192.168.1.8
  remote-as 100
update-source loopback0
address-family ipv4 unicast
  send-community extended
  route-reflector-client
address-family l2vpn evpn
  send-community extended
  route-reflector-client
```

## Spine-2

```
hostname spine2

nv overlay evpn
feature ospf
feature bgp
feature pim
feature nv overlay

copp profile strict

ip pim rp-address 192.168.1.1 group-list 224.0.0.0/4
ip pim ssm range 232.0.0.0/8

interface Ethernet1/1
  ip address 172.16.5.2/30
  ip ospf network point-to-point
  ip router ospf 100 area 0.0.0.0
  ip pim sparse-mode
  no shutdown

interface Ethernet1/3
```

```
mtu 9216
ip address 172.16.7.2/30
ip ospf network point-to-point
ip router ospf 100 area 0.0.0.0
ip pim sparse-mode
no shutdown

interface Ethernet1/5
ip address 172.16.1.2/30
ip ospf network point-to-point
ip router ospf 100 area 0.0.0.0
ip pim sparse-mode
no shutdown

interface Ethernet1/7
mtu 9216
ip address 172.16.3.2/30
ip ospf network point-to-point
ip router ospf 100 area 0.0.0.0
ip pim sparse-mode
no shutdown

interface loopback0
ip address 192.168.1.1/32
ip router ospf 100 area 0.0.0.0
ip pim sparse-mode

router ospf 100
router-id 192.168.1.1
router bgp 100
router-id 192.168.1.1
address-family ipv4 unicast
address-family l2vpn evpn
maximum-paths ibgp 32
additional-paths send
additional-paths receive
neighbor 192.168.1.3
remote-as 100
update-source loopback0
address-family ipv4 unicast
send-community extended
route-reflector-client
address-family l2vpn evpn
send-community extended
route-reflector-client
neighbor 192.168.1.4
remote-as 100
update-source loopback0
address-family ipv4 unicast
send-community extended
route-reflector-client
address-family l2vpn evpn
send-community extended
route-reflector-client
neighbor 192.168.1.7
remote-as 100
update-source loopback0
address-family ipv4 unicast
send-community extended
route-reflector-client
address-family l2vpn evpn
send-community extended
```

```
    route-reflector-client
neighbor 192.168.1.8
  remote-as 100
  update-source loopback0
  address-family ipv4 unicast
    send-community extended
  route-reflector-client
  address-family l2vpn evpn
    send-community extended
  route-reflector-client
```

## Leaf-1

<#root>

```
hostname Leaf1
```

```
nv overlay evpn
feature ospf
feature bgp
feature pim
feature fabric forwarding
feature interface-vlan
feature vn-segment-vlan-based
feature lacp
feature nv overlay
```

```
copp profile strict
```

```
evpn esi multihoming
```

```
    ethernet-segment delay-restore time 180
```

```
fabric forwarding anycast-gateway-mac 0000.2222.3333
ip pim rp-address 192.168.1.1 group-list 224.0.0.0/4
ip pim ssm range 232.0.0.0/8
```

```
vlan 1,10,100,200,300,400
```

```
vlan 10
```

```
  vn-segment 500001
```

```
vlan 100
```

```
  vn-segment 5001002
```

```
vlan 200
```

```
  vn-segment 5001001
```

```
vrf context vxlan-500001
```

```
  vni 500001
```

```
  rd auto
```

```
  address-family ipv4 unicast
```

```
    route-target both auto
```

```
    route-target both auto evpn
```

```
  address-family ipv6 unicast
```

```
    route-target both auto
```

```
    route-target both auto evpn
```

```
hardware access-list tcam region vacl 0
```

```
hardware access-list tcam region e-racl 0
hardware access-list tcam region arp-ether 256
```

```
interface Vlan10
  no shutdown
  vrf member vxlan-500001
  ip forward
```

```
interface Vlan100
  no shutdown
  vrf member vxlan-500001
  ip address 172.20.1.1/24
  fabric forwarding mode anycast-gateway
```

```
interface Vlan200
  no shutdown
  vrf member vxlan-500001
  ip address 172.21.1.1/24
  fabric forwarding mode anycast-gateway
```

```
interface port-channel111
  switchport mode trunk
  switchport trunk allowed vlan 100,200,300,400
```

```
ethernet-segment 2011
```

```
system-mac 0000.0000.2011
```

```
mtu 9216
```

```
interface nve1
  no shutdown
  host-reachability protocol bgp
  source-interface loopback0
  member vni 500001 associate-vrf
  member vni 5001001
    suppress-arp
    mcast-group 239.0.0.1
  member vni 5001002
    suppress-arp
    mcast-group 239.0.0.1
```

```
interface Ethernet1/1
  no switchport

evpn multihoming core-tracking

  ip address 172.16.0.1/30
  ip ospf network point-to-point
  ip router ospf 100 area 0.0.0.0
  ip pim sparse-mode
  no shutdown
```

```
interface Ethernet1/3
  no switchport

evpn multihoming core-tracking
```

```
ip address 172.16.1.1/30
```

```

ip ospf network point-to-point
ip router ospf 100 area 0.0.0.0
ip pim sparse-mode
no shutdown

interface Ethernet1/6
  switchport mode trunk
  switchport trunk allowed vlan 100,200,300,400
  mtu 9216
  channel-group 111 mode active

interface loopback0
  ip address 192.168.1.3/32
  ip router ospf 100 area 0.0.0.0
  ip pim sparse-mode

router ospf 100
  router-id 192.168.1.3
router bgp 100
  router-id 192.168.1.3
  address-family ipv4 unicast
  address-family l2vpn evpn
    maximum-paths ibgp 3
    additional-paths send
    additional-paths receive
  neighbor 192.168.1.1
    remote-as 100
    update-source loopback0
    address-family ipv4 unicast
      send-community extended
    address-family l2vpn evpn
      send-community extended
  neighbor 192.168.1.2
    remote-as 100
    update-source loopback0
    address-family ipv4 unicast
      send-community extended
    address-family l2vpn evpn
      send-community extended

evpn
vrf context vxlan-500001
rd auto
address-family ipv4 unicast
route-target both auto
route-target both auto evpn
address-family ipv6 unicast
route-target both auto
route-target both auto evpn

```

## Leaf-2

```
<#root>
```

```

hostname Leaf2

feature scp-server
feature sftp-server
nv overlay evpn
feature ospf

```



```
feature bgp
feature pim
feature fabric forwarding
feature interface-vlan
feature vn-segment-vlan-based
feature lacp
feature nv overlay
```

```
copp profile strict
```

```
evpn esi multihoming
```

```
    ethernet-segment delay-restore time 180
```

```
fabric forwarding anycast-gateway-mac 0000.2222.3333
ip pim rp-address 192.168.1.1 group-list 224.0.0.0/4
ip pim ssm range 232.0.0.0/8
```

```
vlan 1,10,100,200,300,400
```

```
vlan 10
```

```
    vn-segment 500001
```

```
vlan 100
```

```
    vn-segment 5001002
```

```
vlan 200
```

```
    vn-segment 5001001
```

```
vrf context vxlan-500001
```

```
    vni 500001
```

```
    rd auto
```

```
    address-family ipv4 unicast
```

```
        route-target both auto
```

```
        route-target both auto evpn
```

```
    address-family ipv6 unicast
```

```
        route-target both auto
```

```
        route-target both auto evpn
```

```
hardware access-list tcam region span 0
```

```
hardware access-list tcam region rp-qos 0
```

```
hardware access-list tcam region arp-ether 256
```

```
interface Vlan10
```

```
    no shutdown
```

```
    vrf member vxlan-500001
```

```
    ip forward
```

```
interface Vlan100
```

```
    no shutdown
```

```
    vrf member vxlan-500001
```

```
    ip address 172.20.1.1/24
```

```
    fabric forwarding mode anycast-gateway
```

```
interface Vlan200
```

```
    no shutdown
```

```
    vrf member vxlan-500001
```

```
    ip address 172.21.1.1/24
```

```
    fabric forwarding mode anycast-gateway
```

```
interface port-channel111
```

```
    switchport mode trunk
```

```
switchport trunk allowed vlan 100,200,300,400
```

```
ethernet-segment 2011
```

```
system-mac 0000.0000.2011
```

```
mtu 9216
```

```
interface nve1  
no shutdown  
host-reachability protocol bgp  
source-interface loopback0  
member vni 500001 associate-vrf  
member vni 5001001  
suppress-arp  
mcast-group 239.0.0.1  
member vni 5001002  
suppress-arp  
mcast-group 239.0.0.1
```

```
interface Ethernet1/1  
no switchport
```

```
evpn multihoming core-tracking
```

```
mtu 9216  
ip address 172.16.2.1/30  
ip ospf network point-to-point  
ip router ospf 100 area 0.0.0.0  
ip pim sparse-mode  
no shutdown
```

```
interface Ethernet1/3  
no switchport
```

```
evpn multihoming core-tracking
```

```
mtu 9216  
ip address 172.16.3.1/30  
ip ospf network point-to-point  
ip router ospf 100 area 0.0.0.0  
ip pim sparse-mode  
no shutdown
```

```
interface Ethernet1/6  
switchport mode trunk  
switchport trunk allowed vlan 100,200,300,400  
mtu 9216  
channel-group 111 mode active
```

```
interface mgmt0  
vrf member management  
ip address 10.88.146.115/24
```

```
interface loopback0  
ip address 192.168.1.4/32  
ip router ospf 100 area 0.0.0.0
```

```
ip pim sparse-mode

router ospf 100
  router-id 192.168.1.4
router bgp 100
  router-id 192.168.1.4
  address-family ipv4 unicast
  address-family l2vpn evpn
    maximum-paths ibgp 32
    additional-paths send
    additional-paths receive
  neighbor 192.168.1.1
    remote-as 100
    update-source loopback0
  address-family ipv4 unicast
    send-community extended
  address-family l2vpn evpn
    send-community extended
  neighbor 192.168.1.2
    remote-as 100
    update-source loopback0
  address-family ipv4 unicast
    send-community extended
  address-family l2vpn evpn
    send-community extended
evpn
vrf context vxlan-500001
rd auto
address-family ipv4 unicast
route-target both auto
route-target both auto evpn
address-family ipv6 unicast
route-target both auto
route-target both auto evpn
```

## Leaf-3

```
<#root>

hostname Leaf3

feature scp-server
feature sftp-server
cfs ipv4 distribute
nv overlay evpn
feature ospf
feature bgp
feature pim
feature fabric forwarding
feature interface-vlan
feature vn-segment-vlan-based
feature lacp
feature vpc
feature nv overlay

copp profile strict
hardware access-list tcam region egr-racl 0
hardware access-list tcam region ing-netflow 0
hardware access-list tcam region ing-flow-redirect 512
```

```
fabric forwarding anycast-gateway-mac 0000.2222.3333
ip pim rp-address 192.168.1.1 group-list 224.0.0.0/4
ip pim ssm range 232.0.0.0/8

vlan 1,10,100,200
vlan 10
  vn-segment 500001
vlan 100
  vn-segment 5001002
vlan 200
  vn-segment 5001001

vrf context vxlan-500001
  vni 500001
  rd auto
  address-family ipv4 unicast
    route-target both auto
    route-target both auto evpn
  address-family ipv6 unicast
    route-target both auto
    route-target both auto evpn

vpc domain 100
  peer-switch
  peer-keepalive destination 10.88.146.113 source 10.88.146.112
  virtual peer-link destination 192.168.1.8 source 192.168.1.7 dscp 56
  peer-gateway
  ip arp synchronize

interface Vlan1
  no ip redirects
  no ipv6 redirects

interface Vlan10
  no shutdown
  vrf member vxlan-500001
  ip forward

interface Vlan100
  no shutdown
  vrf member vxlan-500001
  no ip redirects
  ip address 172.20.1.1/24
  no ipv6 redirects
  fabric forwarding mode any cast-gateway

interface Vlan200
  no shutdown
  vrf member vxlan-500001
  no ip redirects
  ip address 172.21.1.1/24
  no ipv6 redirects
  fabric forwarding mode any cast-gateway

interface port-channel10
  switchport
  switchport mode trunk
  switchport trunk allowed vlan 100,200,300,400
  spanning-tree port type network
  vpc peer-link
```

```
interface port-channel30
  switchport
  switchport mode trunk
  switchport trunk allowed vlan 100,200,300,400
  vpc 30
```

```
interface nve1
  no shutdown
  host-reachability protocol bgp
  advertise virtual-rmac
  source-interface loopback1
  member vni 500001 associate-vrf
  member vni 5001001
    suppress-arp
    mcast-group 239.0.0.1
  member vni 5001002
    suppress-arp
    mcast-group 239.0.0.1
```

```
interface Ethernet1/1
```

```
port-type fabric
```

```
  ip address 172.16.4.1/30
  ip ospf network point-to-point
  ip router ospf 100 area 0.0.0.0
  ip pim sparse-mode
  no shutdown
```

```
interface Ethernet1/3
```

```
port-type fabric
```

```
  ip address 172.16.5.1/30
  ip ospf network point-to-point
  ip router ospf 100 area 0.0.0.0
  ip pim sparse-mode
  no shutdown
```

```
interface Ethernet1/5
```

```
  switchport
  switchport mode trunk
  switchport trunk allowed vlan 100,200,300,400
  channel-group 30 mode active
  no shutdown
```

```
interface mgmt0
```

```
  vrf member management
  ip address 10.88.146.112/24
```

```
interface loopback0
```

```
  ip address 192.168.1.7/32
  ip router ospf 100 area 0.0.0.0
  ip pim sparse-mode
```

```
interface loopback1
```

```
  ip address 192.168.1.5/32
  ip address 192.168.1.51/32 secondary
  ip router ospf 100 area 0.0.0.0
  ip pim sparse-mode
```

```
router ospf 100
  router-id 192.168.1.5
router bgp 100
  router-id 192.168.1.7
  address-family ipv4 unicast
  address-family l2vpn evpn
  maximum-paths ibgp 32
  advertise-pip
  additional-paths send
  additional-paths receive
  neighbor 192.168.1.1
    remote-as 100
  update-source loopback0
  address-family ipv4 unicast
    send-community extended
  address-family l2vpn evpn
    send-community extended
  neighbor 192.168.1.2
    remote-as 100
  update-source loopback0
  address-family ipv4 unicast
    send-community extended
  address-family l2vpn evpn
    send-community extended
evpn
vrf context vxlan-500001
rd auto
address-family ipv4 unicast
route-target both auto
route-target both auto evpn
address-family ipv6 unicast
route-target both auto
route-target both auto evpn
```

## Leaf-4

```
<#root>
```

```
hostname Leaf4
```

```
cfs ipv4 distribute
nv overlay evpn
feature ospf
feature bgp
feature pim
feature fabric forwarding
feature interface-vlan
feature vn-segment-vlan-based
feature lacp
feature vpc
feature nv overlay
```

```
copp profile strict
hardware access-list tcam region egr-racl 0
hardware access-list tcam region ing-netflow 0
hardware access-list tcam region ing-flow-redirect 512
```

```
fabric forwarding anycast-gateway-mac 0000.2222.3333
```

```
ip pim rp-address 192.168.1.1 group-list 224.0.0.0/4
ip pim ssm range 232.0.0.0/8

vlan 1,10,100,200

vlan 10
  vn-segment 500001
vlan 100
  vn-segment 5001002
vlan 200
  vn-segment 5001001

vrf context vxlan-500001
  vni 500001
  rd auto
  address-family ipv4 unicast
    route-target both auto
    route-target both auto evpn
  address-family ipv6 unicast
    route-target both auto
    route-target both auto evpn

vpc domain 100
  peer-switch
  peer-keepalive destination 10.88.146.112 source 10.88.146.113
  virtual peer-link destination 192.168.1.7 source 192.168.1.8 dscp 56
  peer-gateway
  ip arp synchronize

interface Vlan1
  no ip redirects
  no ipv6 redirects

interface Vlan10
  no shutdown
  vrf member vxlan-500001
  ip forward

interface Vlan100
  no shutdown
  vrf member vxlan-500001
  no ip redirects
  ip address 172.20.1.1/24
  no ipv6 redirects
  fabric forwarding mode any cast-gateway

interface Vlan200
  no shutdown
  vrf member vxlan-500001
  no ip redirects
  ip address 172.21.1.1/24
  no ipv6 redirects
  fabric forwarding mode any cast-gateway

interface port-channel10
  switchport
  switchport mode trunk
  switchport trunk allowed vlan 100,200,300,400
  spanning-tree port type network
  vpc peer-link

interface port-channel30
```

```
switchport
switchport mode trunk
switchport trunk allowed vlan 100,200,300,400
vpc 30
```

```
interface nve1
no shutdown
host-reachability protocol bgp
advertise virtual-rmac
source-interface loopback1
member vni 500001 associate-vrf
member vni 5001001
    suppress-arp
    mcast-group 239.0.0.1
member vni 5001002
    suppress-arp
    mcast-group 239.0.0.1
```

```
interface Ethernet1/1
mtu 9216
```

```
port-type fabric
```

```
ip address 172.16.6.1/30
ip ospf network point-to-point
ip router ospf 100 area 0.0.0.0
ip pim sparse-mode
no shutdown
```

```
interface Ethernet1/3
mtu 9216
```

```
port-type fabric
```

```
ip address 172.16.7.1/30
ip ospf network point-to-point
ip router ospf 100 area 0.0.0.0
ip pim sparse-mode
no shutdown
```

```
interface Ethernet1/5
switchport
switchport mode trunk
switchport trunk allowed vlan 100,200,300,400
channel-group 30 mode active
no shutdown
```

```
interface mgmt0
vrf member management
ip address 10.88.146.113/24
```

```
interface loopback0
ip address 192.168.1.8/32
ip router ospf 100 area 0.0.0.0
ip pim sparse-mode
```

```
interface loopback1
ip address 192.168.1.6/32
ip address 192.168.1.51/32 secondary
ip router ospf 100 area 0.0.0.0
ip pim sparse-mode
```



icam monitor scale

```
router ospf 100
  router-id 192.168.1.6
router bgp 100
  router-id 192.168.1.8
  address-family ipv4 unicast
  address-family l2vpn evpn
  maximum-paths ibgp 32
  advertise-pip
  additional-paths send
  additional-paths receive
neighbor 192.168.1.1
  remote-as 100
  update-source loopback0
  address-family ipv4 unicast
  send-community extended
  address-family l2vpn evpn
  send-community extended
neighbor 192.168.1.2
  remote-as 100
  update-source loopback0
  address-family ipv4 unicast
  send-community extended
  address-family l2vpn evpn
  send-community extended
evpn
vrf context vxlan-500001
rd auto
address-family ipv4 unicast
route-target both auto
route-target both auto evpn
address-family ipv6 unicast
route-target both auto
route-target both auto evp
```

## Host-1

```
feature bash-shell
feature scp-server
feature interface-vlan
feature lacp
feature lldp

vlan 1,10,100,200,300,400

interface Vlan100
  no shutdown
  ip address 172.20.1.100/24

interface port-channel111
  switchport mode trunk
  switchport trunk allowed vlan 100,200,300,400

interface Ethernet1/2
  switchport mode trunk
  switchport trunk allowed vlan 100,200,300,400
  channel-group 111 mode active
```

```
no shutdown

interface Ethernet1/3
  switchport mode trunk
  switchport trunk allowed vlan 100,200,300,400
  channel-group 111 mode active
  no shutdown
```

## Host-2

```
feature bash-shell
feature scp-server
feature interface-vlan
feature lacp
feature lldp
```

```
vlan 1,10,100,200,300,400
```

```
interface Vlan100
  no shutdown
  ip address 172.20.1.101/24
```

```
interface port-channel30
  switchport mode trunk
  switchport trunk allowed vlan 100,200,300,400
```

```
interface Ethernet1/1
  switchport mode trunk
  switchport trunk allowed vlan 100,200,300,400
  channel-group 30 mode active
  no shutdown
```

```
interface Ethernet1/3
  switchport mode trunk
  switchport trunk allowed vlan 100,200,300,400
  channel-group 30 mode active
  no shutdown
```

## Verify

Use this section in order to confirm that your configuration works properly.

```
H2# ping 172.20.1.100
PING 172.20.1.100 (172.20.1.100): 56 data bytes
36 bytes from 172.20.1.101: Destination Host Unreachable
Request 0 timed out
64 bytes from 172.20.1.100: icmp_seq=1 ttl=254 time=2.324 ms
64 bytes from 172.20.1.100: icmp_seq=2 ttl=254 time=1.546 ms
64 bytes from 172.20.1.100: icmp_seq=3 ttl=254 time=1.574 ms
64 bytes from 172.20.1.100: icmp_seq=4 ttl=254 time=1.527 ms
```

```

H2(config-if)# ping 172.20.1.100 source 172.21.1.101
PING 172.20.1.100 (172.20.1.100) from 172.21.1.101: 56 data bytes
64 bytes from 172.20.1.100: icmp_seq=0 ttl=254 time=3.813 ms
64 bytes from 172.20.1.100: icmp_seq=1 ttl=254 time=1.71 ms
64 bytes from 172.20.1.100: icmp_seq=2 ttl=254 time=1.76 ms
64 bytes from 172.20.1.100: icmp_seq=3 ttl=254 time=1.804 ms
64 bytes from 172.20.1.100: icmp_seq=4 ttl=254 time=1.791 ms
--- 172.20.1.100 ping statistics ---
5 packets transmitted, 5 packets received, 0.00% packet loss
round-trip min/avg/max = 1.71/2.175/3.813 ms

```

```

H1# ping 172.20.1.101
PING 172.20.1.101 (172.20.1.101): 56 data bytes
64 bytes from 172.20.1.101: icmp_seq=0 ttl=254 time=2.044 ms
64 bytes from 172.20.1.101: icmp_seq=1 ttl=254 time=1.746 ms
64 bytes from 172.20.1.101: icmp_seq=2 ttl=254 time=1.547 ms
64 bytes from 172.20.1.101: icmp_seq=3 ttl=254 time=1.56 ms
64 bytes from 172.20.1.101: icmp_seq=4 ttl=254 time=1.555 ms

```

```

H1(config-if)# ping 172.21.1.101 source 172.20.1.100
PING 172.21.1.101 (172.21.1.101) from 172.20.1.100: 56 data bytes
64 bytes from 172.21.1.101: icmp_seq=0 ttl=254 time=1.746 ms
64 bytes from 172.21.1.101: icmp_seq=1 ttl=254 time=1.487 ms
64 bytes from 172.21.1.101: icmp_seq=2 ttl=254 time=1.556 ms
64 bytes from 172.21.1.101: icmp_seq=3 ttl=254 time=1.572 ms
64 bytes from 172.21.1.101: icmp_seq=4 ttl=254 time=1.534 ms
--- 172.21.1.101 ping statistics ---
5 packets transmitted, 5 packets received, 0.00% packet loss
round-trip min/avg/max = 1.487/1.578/1.746 ms
--- 172.20.1.101 ping statistics ---
5 packets transmitted, 5 packets received, 0.00% packet loss
round-trip min/avg/max = 1.547/1.69/2.044 ms
H1#

```

```

Leaf1#
Leaf1# show mac address-table
Legend:
* - primary entry, G - Gateway MAC, (R) - Routed MAC, O - Overlay MAC
age - seconds since last seen,+ - primary entry using vPC Peer-Link,
(T) - True, (F) - False, C - ControlPlane MAC, ~ - vsan
VLAN MAC Address Type age Secure NTFY Ports
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----
* 10 00f6.634e.ea4f static - F F nve1(192.168.1.4)
* 10 00f6.634f.1473 static - F F Vlan10
* 10 0200.c0a8.0133 static - F F nve1(192.168.1.51)
C 100 005d.73bb.10fc dynamic 0 F F nve1(192.168.1.51)
* 100 6cb2.aefa.2b01 dynamic 0 F F Po111
C 200 005d.73bb.10fc dynamic 0 F F nve1(192.168.1.51)
C 200 6cb2.aefa.2b01 dynamic 0 F F Po111
G - 0000.2222.3333 static - F F sup-eth1(R)
G - 00f6.634f.1473 static - F F sup-eth1(R)
G 10 00f6.634f.1473 static - F F sup-eth1(R)
G 100 00f6.634f.1473 static - F F sup-eth1(R)
G 200 00f6.634f.1473 static - F F sup-eth1(R)

```

```

Leaf1#
Leaf2# show mac address-table
Legend:
* - primary entry, G - Gateway MAC, (R) - Routed MAC, O - Overlay MAC
age - seconds since last seen,+ - primary entry using vPC Peer-Link,
(T) - True, (F) - False, C - ControlPlane MAC, ~ - vsan
VLAN MAC Address Type age Secure NTFY Ports
-----+-----+-----+-----+-----+-----+-----
* 10 00f6.634e.ea4f static - F F Vlan10
* 10 00f6.634f.1473 static - F F nve1(192.168.1.3)
* 10 0200.c0a8.0133 static - F F nve1(192.168.1.51)
C 100 005d.73bb.10fc dynamic 0 F F nve1(192.168.1.51)
C 100 6cb2.aefa.2b01 dynamic 0 F F Po111
C 200 005d.73bb.10fc dynamic 0 F F nve1(192.168.1.51)
* 200 6cb2.aefa.2b01 dynamic 0 F F Po111
G - 0000.2222.3333 static - F F sup-eth1(R)
G - 00f6.634e.ea4f static - F F sup-eth1(R)
G 10 00f6.634e.ea4f static - F F sup-eth1(R)
G 100 00f6.634e.ea4f static - F F sup-eth1(R)
G 200 00f6.634e.ea4f static - F F sup-eth1(R)
Leaf2#
Leaf2#

```

```

Leaf3# show mac address-table
Legend:
* - primary entry, G - Gateway MAC, (R) - Routed MAC, O - Overlay MAC
age - seconds since last seen,+ - primary entry using vPC Peer-Link,
(T) - True, (F) - False, C - ControlPlane MAC, ~ - vsan,
(NA)- Not Applicable
VLAN MAC Address Type age Secure NTFY Ports
-----+-----+-----+-----+-----+-----+-----
* 100 005d.73bb.10fc dynamic NA F F Po30
C 100 6cb2.aefa.2b01 dynamic NA F F nve1(192.168.1.3)
* 200 005d.73bb.10fc dynamic NA F F Po30
C 200 6cb2.aefa.2b01 dynamic NA F F nve1(192.168.1.3)
G - 0000.2222.3333 static - F F sup-eth1(R)
G 100 003a.9c07.9b07 static - F F vPC Peer-Link(R)
G 400 003a.9c07.9b07 static - F F vPC Peer-Link(R)
G 200 003a.9c07.9b07 static - F F vPC Peer-Link(R)
G - 0200.c0a8.0133 static - F F sup-eth1(R)
G - 8c94.1f5f.f787 static - F F sup-eth1(R)
G 10 8c94.1f5f.f787 static - F F sup-eth1(R)
G 100 8c94.1f5f.f787 static - F F sup-eth1(R)
G 200 8c94.1f5f.f787 static - F F sup-eth1(R)
Leaf3#
Leaf3#

```

```

Leaf4# show mac address-table
Legend:
* - primary entry, G - Gateway MAC, (R) - Routed MAC, O - Overlay MAC
age - seconds since last seen,+ - primary entry using vPC Peer-Link,
(T) - True, (F) - False, C - ControlPlane MAC, ~ - vsan,
(NA)- Not Applicable
VLAN MAC Address Type age Secure NTFY Ports
-----+-----+-----+-----+-----+-----+-----
+ 100 005d.73bb.10fc dynamic NA F F Po30
C 100 6cb2.aefa.2b01 dynamic NA F F nve1(192.168.1.3)
+ 200 005d.73bb.10fc dynamic NA F F Po30
C 200 6cb2.aefa.2b01 dynamic NA F F nve1(192.168.1.3)
G - 0000.2222.3333 static - F F sup-eth1(R)
G - 003a.9c07.9b07 static - F F sup-eth1(R)
G 10 003a.9c07.9b07 static - F F sup-eth1(R)

```

```
G 100 003a.9c07.9b07 static - F F sup-eth1(R)
G 400 003a.9c07.9b07 static - F F sup-eth1(R)
G 200 003a.9c07.9b07 static - F F sup-eth1(R)
G - 0200.c0a8.0133 static - F F sup-eth1(R)
G 100 8c94.1f5f.f787 static - F F vPC Peer-Link(R)
G 200 8c94.1f5f.f787 static - F F vPC Peer-Link(R)
Leaf4#
```

## Troubleshoot

This section provides information you can use in order to troubleshoot your configuration.

```
Leaf2# show nve ethernet-segment
ESI: 0300.0000.0020.1100.07db
  Parent interface: port-channel111
  ES State: Up
  Port-channel state: Up
  NVE Interface: nve1
  NVE State: Up
  Host Learning Mode: control-plane
  Active Vlans: 100,200,300,400
  DF Vlans:
  Active VNIs: 5001001-5001002
  CC failed for VLANs:
  VLAN CC timer: 0
  Number of ES members: 2
  My ordinal: 1
  DF timer start time: 00:00:00
  Config State: config-applied
  DF List: 192.168.1.3 192.168.1.4
  ES route added to L2RIB: True
  EAD/ES routes added to L2RIB: True
  EAD/EVI route timer age: not running
```

```
Leaf2# show port-ch summary
Flags: D - Down          P - Up in port-channel (members)
       I - Individual    H - Hot-standby (LACP only)
       s - Suspended    r - Module-removed
       b - BFD Session Wait
       S - Switched     R - Routed
       U - Up (port-channel)
       p - Up in delay-lacp mode (member)
       M - Not in use. Min-links not met
```

```
-----
Group Port-      Type      Protocol  Member Ports
Channel
-----
111  Po111(SU)  Eth      LACP      Eth1/6(P)
```

```
Leaf2# show bgp l2vpn evpn
BGP routing table information for VRF default, address family L2VPN EVPN
BGP table version is 123, Local Router ID is 192.168.1.4
Status: s-suppressed, x-deleted, S-stale, d-dampened, h-history, *-valid, >-best
Path type: i-internal, e-external, c-confed, l-local, a-aggregate, r-redist, I-injected
Origin codes: i - IGP, e - EGP, ? - incomplete, | - multipath, & - backup, 2 - best2
```

Network	Next Hop	Metric	LocPrf	Weight	Path
Route Distinguisher: 192.168.1.3:19536					
*>i[1]:[0300.0000.0020.1100.07db]:[0xffffffff]/152	192.168.1.3		100	0	i
* i	192.168.1.3		100	0	i
Route Distinguisher: 192.168.1.3:27110					
*>i[4]:[0300.0000.0020.1100.07db]:[32]:[192.168.1.3]/136	192.168.1.3		100	0	i
* i	192.168.1.3		100	0	i
Route Distinguisher: 192.168.1.3:32867					
*>i[1]:[0300.0000.0020.1100.07db]:[0x0]/152	192.168.1.3		100	0	i
* i	192.168.1.3		100	0	i
*>i[2]:[0]:[0]:[48]:[6cb2.aefa.2b01]:[0]:[0.0.0.0]/216	192.168.1.3		100	0	i
* i	192.168.1.3		100	0	i
*>i[2]:[0]:[0]:[48]:[6cb2.aefa.2b01]:[32]:[172.20.1.100]/272	192.168.1.3		100	0	i
* i	192.168.1.3		100	0	i
Route Distinguisher: 192.168.1.3:32967					
*>i[1]:[0300.0000.0020.1100.07db]:[0x0]/152	192.168.1.3		100	0	i
* i	192.168.1.3		100	0	i
Route Distinguisher: 192.168.1.4:27110 (ES [0300.0000.0020.1100.07db 0])					
*>i[4]:[0300.0000.0020.1100.07db]:[32]:[192.168.1.3]/136	192.168.1.3		100	0	i
*>l[4]:[0300.0000.0020.1100.07db]:[32]:[192.168.1.4]/136	192.168.1.4		100	32768	
Route Distinguisher: 192.168.1.4:32867 (L2VNI 5001002)					
* i[1]:[0300.0000.0020.1100.07db]:[0x0]/152	192.168.1.3		100	0	i
*>l	192.168.1.4		100	32768	i
*>i[2]:[0]:[0]:[48]:[003a.9c07.9b07]:[0]:[0.0.0.0]/216	192.168.1.51		100	0	i
*>i[2]:[0]:[0]:[48]:[005d.73bb.10fc]:[0]:[0.0.0.0]/216	192.168.1.51		100	0	i
* i	192.168.1.51		100	0	i
* i[2]:[0]:[0]:[48]:[6cb2.aefa.2b01]:[0]:[0.0.0.0]/216	192.168.1.3		100	0	i
*>l	192.168.1.4		100	32768	i
*>i[2]:[0]:[0]:[48]:[8c94.1f5f.f787]:[0]:[0.0.0.0]/216	192.168.1.51		100	0	i
* i[2]:[0]:[0]:[48]:[005d.73bb.10fc]:[32]:[172.20.1.101]/272	192.168.1.51		100	0	i
*>i	192.168.1.51		100	0	i
* i[2]:[0]:[0]:[48]:[6cb2.aefa.2b01]:[32]:[172.20.1.100]/272	192.168.1.3		100	0	i
*>l	192.168.1.4		100	32768	i
Route Distinguisher: 192.168.1.4:32967 (L2VNI 5001001)					
* i[1]:[0300.0000.0020.1100.07db]:[0x0]/152	192.168.1.3		100	0	i
*>l	192.168.1.4		100	32768	i
*>i[2]:[0]:[0]:[48]:[003a.9c07.9b07]:[0]:[0.0.0.0]/216	192.168.1.51		100	0	i
*>i[2]:[0]:[0]:[48]:[8c94.1f5f.f787]:[0]:[0.0.0.0]/216	192.168.1.51		100	0	i

```

Route Distinguisher: 192.168.1.4:65534 (L2VNI 0)
*>i[1]:[0300.0000.0020.1100.07db]:[0xffffffff]/152
      192.168.1.3          100          0 i

Route Distinguisher: 192.168.1.7:3
* i[2]:[0]:[0]:[48]:[8c94.1f5f.f787]:[0]:[0.0.0.0]/216
      192.168.1.51        100          0 i
*>i      192.168.1.51        100          0 i

Route Distinguisher: 192.168.1.7:32867
* i[2]:[0]:[0]:[48]:[005d.73bb.10fc]:[0]:[0.0.0.0]/216
      192.168.1.51        100          0 i
*>i      192.168.1.51        100          0 i
* i[2]:[0]:[0]:[48]:[8c94.1f5f.f787]:[0]:[0.0.0.0]/216
      192.168.1.51        100          0 i
*>i      192.168.1.51        100          0 i
* i[2]:[0]:[0]:[48]:[005d.73bb.10fc]:[32]:[172.20.1.101]/272
      192.168.1.51        100          0 i
*>i      192.168.1.51        100          0 i

Route Distinguisher: 192.168.1.7:32967
* i[2]:[0]:[0]:[48]:[8c94.1f5f.f787]:[0]:[0.0.0.0]/216
      192.168.1.51        100          0 i
*>i      192.168.1.51        100          0 i

Route Distinguisher: 192.168.1.8:3
* i[2]:[0]:[0]:[48]:[003a.9c07.9b07]:[0]:[0.0.0.0]/216
      192.168.1.51        100          0 i
*>i      192.168.1.51        100          0 i

Route Distinguisher: 192.168.1.8:32867
* i[2]:[0]:[0]:[48]:[003a.9c07.9b07]:[0]:[0.0.0.0]/216
      192.168.1.51        100          0 i
*>i      192.168.1.51        100          0 i
* i[2]:[0]:[0]:[48]:[005d.73bb.10fc]:[0]:[0.0.0.0]/216
      192.168.1.51        100          0 i
*>i      192.168.1.51        100          0 i
* i[2]:[0]:[0]:[48]:[005d.73bb.10fc]:[32]:[172.20.1.101]/272
      192.168.1.51        100          0 i
*>i      192.168.1.51        100          0 i

Route Distinguisher: 192.168.1.8:32967
* i[2]:[0]:[0]:[48]:[003a.9c07.9b07]:[0]:[0.0.0.0]/216
      192.168.1.51        100          0 i
*>i      192.168.1.51        100          0 i

Route Distinguisher: 192.168.1.4:19536 (EAD-ES [0300.0000.0020.1100.07db 19536])
*>l[1]:[0300.0000.0020.1100.07db]:[0xffffffff]/152
      192.168.1.4          100          32768 i

Leaf2#

Leaf1# show port-ch su
Flags:  D - Down          P - Up in port-channel (members)
        I - Individual    H - Hot-standby (LACP only)
        s - Suspended     r - Module-removed
        b - BFD Session Wait
        S - Switched      R - Routed
        U - Up (port-channel)
        p - Up in delay-lacp mode (member)
        M - Not in use. Min-links not met
-----

```

```

Group Port-      Type      Protocol  Member Ports
Channel
-----

```

```

111 Po111(SU)  Eth      LACP      Eth1/6(P)

```

```

Leaf1#

```

```

Leaf1#

```

```

Leaf1# show nve ethernet-segment

```

```

ESI: 0300.0000.0020.1100.07db

```

```

  Parent interface: port-channel111

```

```

  ES State: Up

```

```

  Port-channel state: Up

```

```

  NVE Interface: nve1

```

```

  NVE State: Up

```

```

  Host Learning Mode: control-plane

```

```

  Active Vlans: 100,200,300,400

```

```

  DF Vlans: 100,200,300,400

```

```

  Active VNIs: 5001001-5001002

```

```

  CC failed for VLANs:

```

```

  VLAN CC timer: 0

```

```

  Number of ES members: 2

```

```

  My ordinal: 0

```

```

  DF timer start time: 00:00:00

```

```

  Config State: config-applied

```

```

  DF List: 192.168.1.3 192.168.1.4

```

```

  ES route added to L2RIB: True

```

```

  EAD/ES routes added to L2RIB: True

```

```

  EAD/EVI route timer age: not running

```

```

-----
Leaf1#

```

```

Leaf1# show bgp l2vpn evpn

```

```

BGP routing table information for VRF default, address family L2VPN EVPN

```

```

BGP table version is 189, Local Router ID is 192.168.1.3

```

```

Status: s-suppressed, x-deleted, S-stale, d-dampened, h-history, *-valid, >-best

```

```

Path type: i-internal, e-external, c-confed, l-local, a-aggregate, r-redist, I-injected

```

```

Origin codes: i - IGP, e - EGP, ? - incomplete, | - multipath, & - backup, 2 - best2

```

Network	Next Hop	Metric	LocPrf	Weight	Path
Route Distinguisher: 192.168.1.3:27110 (ES [0300.0000.0020.1100.07db 0])					
*>l[4]:[0300.0000.0020.1100.07db]:[32]:[192.168.1.3]/136	192.168.1.3		100	32768	i
*>i[4]:[0300.0000.0020.1100.07db]:[32]:[192.168.1.4]/136	192.168.1.4		100	0	i
Route Distinguisher: 192.168.1.3:32867 (L2VNI 5001002)					
*>l[1]:[0300.0000.0020.1100.07db]:[0x0]/152	192.168.1.3		100	32768	i
* i	192.168.1.4		100	0	i
*>i[2]:[0]:[0]:[48]:[003a.9c07.9b07]:[0]:[0.0.0.0]/216	192.168.1.51		100	0	i
*>i[2]:[0]:[0]:[48]:[005d.73bb.10fc]:[0]:[0.0.0.0]/216	192.168.1.51		100	0	i
* i	192.168.1.51		100	0	i
*>l[2]:[0]:[0]:[48]:[6cb2.aefa.2b01]:[0]:[0.0.0.0]/216	192.168.1.3		100	32768	i
* i	192.168.1.4		100	0	i
*>i[2]:[0]:[0]:[48]:[8c94.1f5f.f787]:[0]:[0.0.0.0]/216	192.168.1.51		100	0	i
* i[2]:[0]:[0]:[48]:[005d.73bb.10fc]:[32]:[172.20.1.101]/272	192.168.1.51		100	0	i
*>i	192.168.1.51		100	0	i
*>l[2]:[0]:[0]:[48]:[6cb2.aefa.2b01]:[32]:[172.20.1.100]/272					



```

          192.168.1.3          100      32768 i
* i          192.168.1.4          100           0 i

Route Distinguisher: 192.168.1.3:32967 (L2VNI 5001001)
*>l[1]:[0300.0000.0020.1100.07db]:[0x0]/152
          192.168.1.3          100      32768 i
* i          192.168.1.4          100           0 i
*>i[2]:[0]:[0]:[48]:[003a.9c07.9b07]:[0]:[0.0.0.0]/216
          192.168.1.51          100           0 i
*>i[2]:[0]:[0]:[48]:[8c94.1f5f.f787]:[0]:[0.0.0.0]/216
          192.168.1.51          100           0 i

Route Distinguisher: 192.168.1.3:65534 (L2VNI 0)
*>i[1]:[0300.0000.0020.1100.07db]:[0xffffffff]/152
          192.168.1.4          100           0 i

Route Distinguisher: 192.168.1.4:19536
* i[1]:[0300.0000.0020.1100.07db]:[0xffffffff]/152
          192.168.1.4          100           0 i
*>i          192.168.1.4          100           0 i

Route Distinguisher: 192.168.1.4:27110
* i[4]:[0300.0000.0020.1100.07db]:[32]:[192.168.1.4]/136
          192.168.1.4          100           0 i
*>i          192.168.1.4          100           0 i

Route Distinguisher: 192.168.1.4:32867
* i[1]:[0300.0000.0020.1100.07db]:[0x0]/152
          192.168.1.4          100           0 i
*>i          192.168.1.4          100           0 i
* i[2]:[0]:[0]:[48]:[6cb2.aefa.2b01]:[0]:[0.0.0.0]/216
          192.168.1.4          100           0 i
*>i          192.168.1.4          100           0 i
* i[2]:[0]:[0]:[48]:[6cb2.aefa.2b01]:[32]:[172.20.1.100]/272
          192.168.1.4          100           0 i
*>i          192.168.1.4          100           0 i

Route Distinguisher: 192.168.1.4:32967
* i[1]:[0300.0000.0020.1100.07db]:[0x0]/152
          192.168.1.4          100           0 i
*>i          192.168.1.4          100           0 i

Route Distinguisher: 192.168.1.7:3
* i[2]:[0]:[0]:[48]:[8c94.1f5f.f787]:[0]:[0.0.0.0]/216
          192.168.1.51          100           0 i
*>i          192.168.1.51          100           0 i

Route Distinguisher: 192.168.1.7:32867
* i[2]:[0]:[0]:[48]:[005d.73bb.10fc]:[0]:[0.0.0.0]/216
          192.168.1.51          100           0 i
*>i          192.168.1.51          100           0 i
* i[2]:[0]:[0]:[48]:[8c94.1f5f.f787]:[0]:[0.0.0.0]/216
          192.168.1.51          100           0 i
*>i          192.168.1.51          100           0 i
* i[2]:[0]:[0]:[48]:[005d.73bb.10fc]:[32]:[172.20.1.101]/272
          192.168.1.51          100           0 i
*>i          192.168.1.51          100           0 i

Route Distinguisher: 192.168.1.7:32967
* i[2]:[0]:[0]:[48]:[8c94.1f5f.f787]:[0]:[0.0.0.0]/216
          192.168.1.51          100           0 i
*>i          192.168.1.51          100           0 i

```

Route Distinguisher: 192.168.1.8:3

```
* i[2]:[0]:[0]:[48]:[003a.9c07.9b07]:[0]:[0.0.0.0]/216
      192.168.1.51          100          0 i
*>i      192.168.1.51          100          0 i
```

Route Distinguisher: 192.168.1.8:32867

```
* i[2]:[0]:[0]:[48]:[003a.9c07.9b07]:[0]:[0.0.0.0]/216
      192.168.1.51          100          0 i
*>i      192.168.1.51          100          0 i
* i[2]:[0]:[0]:[48]:[005d.73bb.10fc]:[0]:[0.0.0.0]/216
      192.168.1.51          100          0 i
*>i      192.168.1.51          100          0 i
* i[2]:[0]:[0]:[48]:[005d.73bb.10fc]:[32]:[172.20.1.101]/272
      192.168.1.51          100          0 i
*>i      192.168.1.51          100          0 i
```

Route Distinguisher: 192.168.1.8:32967

```
* i[2]:[0]:[0]:[48]:[003a.9c07.9b07]:[0]:[0.0.0.0]/216
      192.168.1.51          100          0 i
*>i      192.168.1.51          100          0 i
```

Route Distinguisher: 192.168.1.3:19536 (EAD-ES [0300.0000.0020.1100.07db 19536])

```
*>l[1]:[0300.0000.0020.1100.07db]:[0xffffffff]/152
      192.168.1.3          100          32768 i
```

Leaf1#

leaf3# show port-ch summary

```
Flags: D - Down          P - Up in port-channel (members)
       I - Individual    H - Hot-standby (LACP only)
       s - Suspended     r - Module-removed
       b - BFD Session Wait
       S - Switched      R - Routed
       U - Up (port-channel)
       p - Up in delay-lacp mode (member)
       M - Not in use. Min-links not met
```

```
-----
```

Group	Port-Channel	Type	Protocol	Member Ports
10	Po10(SU)	Eth	NONE	--
30	Po30(SU)	Eth	LACP	Eth1/5(P)

```
-----
```

Leaf3#

Leaf3# show vpc

Legend:

(\*) - local vPC is down, forwarding via vPC peer-link

```
vPC domain id          : 100
Peer status            : peer adjacency formed ok
vPC keep-alive status  : peer is alive
Configuration consistency status : success
Per-vlan consistency status : success
Type-2 consistency status : success
vPC role               : secondary
Number of vPCs configured : 1
Peer Gateway           : Enabled
Dual-active excluded VLANs : -
Graceful Consistency Check : Enabled
Auto-recovery status   : Disabled
Delay-restore status   : Timer is off.(timeout = 30s)
Delay-restore SVI status : Timer is off.(timeout = 10s)
```

```
Operational Layer3 Peer-router      : Disabled
Virtual-peerlink mode              : Enabled
```

vPC Peer-link status

```
-----
id   Port   Status Active vlans
--   -
1    Po10   up     100,200
```

vPC status

```
-----
Id   Port           Status Consistency Reason           Active vlans
--   -
30   Po30           up     success      success           100,200
```

Please check "show vpc consistency-parameters vpc <vpc-num>" for the consistency reason of down vpc and for type-2 consistency reasons for any vpc.

Leaf3# show bgp l2vpn evpn

BGP routing table information for VRF default, address family L2VPN EVPN  
 BGP table version is 66, Local Router ID is 192.168.1.7  
 Status: s-suppressed, x-deleted, S-stale, d-dampened, h-history, \*-valid, >-best  
 Path type: i-internal, e-external, c-confed, l-local, a-aggregate, r-redist, I-injected  
 Origin codes: i - IGP, e - EGP, ? - incomplete, | - multipath, & - backup, 2 -best2

Network	Next Hop	Metric	LocPrf	Weight	Path
Route Distinguisher: 192.168.1.3:19536					
*>i[1]:[0300.0000.0020.1100.07db]:[0xffffffff]/152	192.168.1.3		100	0	i
* i	192.168.1.3		100	0	i
Route Distinguisher: 192.168.1.3:32867					
*>i[1]:[0300.0000.0020.1100.07db]:[0x0]/152	192.168.1.3		100	0	i
* i	192.168.1.3		100	0	i
*>i[2]:[0]:[0]:[48]:[6cb2.aefa.2b01]:[0]:[0.0.0.0]/216	192.168.1.3		100	0	i
* i	192.168.1.3		100	0	i
*>i[2]:[0]:[0]:[48]:[6cb2.aefa.2b01]:[32]:[172.20.1.100]/272	192.168.1.3		100	0	i
* i	192.168.1.3		100	0	i
Route Distinguisher: 192.168.1.3:32967					
*>i[1]:[0300.0000.0020.1100.07db]:[0x0]/152	192.168.1.3		100	0	i
* i	192.168.1.3		100	0	i
Route Distinguisher: 192.168.1.4:19536					
* i[1]:[0300.0000.0020.1100.07db]:[0xffffffff]/152	192.168.1.4		100	0	i
*>i	192.168.1.4		100	0	i
Route Distinguisher: 192.168.1.4:32867					
* i[1]:[0300.0000.0020.1100.07db]:[0x0]/152	192.168.1.4		100	0	i
*>i	192.168.1.4		100	0	i
* i[2]:[0]:[0]:[48]:[6cb2.aefa.2b01]:[0]:[0.0.0.0]/216	192.168.1.4		100	0	i
*>i	192.168.1.4		100	0	i
* i[2]:[0]:[0]:[48]:[6cb2.aefa.2b01]:[32]:[172.20.1.100]/272					

```

          192.168.1.4                100          0 i
*>i      192.168.1.4                100          0 i

```

Route Distinguisher: 192.168.1.4:32967

```

* i[1]:[0300.0000.0020.1100.07db]:[0x0]/152
          192.168.1.4                100          0 i
*>i      192.168.1.4                100          0 i

```

Route Distinguisher: 192.168.1.7:32867 (L2VNI 5001002)

```

*>i[1]:[0300.0000.0020.1100.07db]:[0x0]/152
          192.168.1.3                100          0 i
*|i      192.168.1.4                100          0 i
*>l[2]:[0]:[0]:[48]:[005d.73bb.10fc]:[0]:[0.0.0.0]/216
          192.168.1.51                100          32768 i
*>i[2]:[0]:[0]:[48]:[6cb2.aefa.2b01]:[0]:[0.0.0.0]/216
          192.168.1.3                100          0 i
*|i      192.168.1.4                100          0 i
*>l[2]:[0]:[0]:[48]:[8c94.1f5f.f787]:[0]:[0.0.0.0]/216
          192.168.1.51                100          32768 i
*>l[2]:[0]:[0]:[48]:[005d.73bb.10fc]:[32]:[172.20.1.101]/272
          192.168.1.51                100          32768 i
*>i[2]:[0]:[0]:[48]:[6cb2.aefa.2b01]:[32]:[172.20.1.100]/272
          192.168.1.3                100          0 i
*|i      192.168.1.4                100          0 i

```

Route Distinguisher: 192.168.1.7:32967 (L2VNI 5001001)

```

*>i[1]:[0300.0000.0020.1100.07db]:[0x0]/152
          192.168.1.3                100          0 i
*|i      192.168.1.4                100          0 i
*>l[2]:[0]:[0]:[48]:[8c94.1f5f.f787]:[0]:[0.0.0.0]/216
          192.168.1.51                100          32768 i

```

Route Distinguisher: 192.168.1.7:65534 (L2VNI 0)

```

*>i[1]:[0300.0000.0020.1100.07db]:[0xffffffff]/152
          192.168.1.3                100          0 i
*|i      192.168.1.4                100          0 i

```

Route Distinguisher: 192.168.1.7:3 (L3VNI 500001)

```

*>l[2]:[0]:[0]:[48]:[8c94.1f5f.f787]:[0]:[0.0.0.0]/216
          192.168.1.51                100          32768 i
*>i[2]:[0]:[0]:[48]:[6cb2.aefa.2b01]:[32]:[172.20.1.10]/272
          192.168.1.3                100          0 i
*|i      192.168.1.4                100          0 i

```

Leaf4#

Leaf4# show vpc

Legend:

(\*) - local vPC is down, forwarding via vPC peer-link

```

vPC domain id          : 100
Peer status            : peer adjacency formed ok
vPC keep-alive status  : peer is alive
Configuration consistency status : success
Per-vlan consistency status : success
Type-2 consistency status : success
vPC role               : primary
Number of vPCs configured : 1
Peer Gateway           : Enabled
Dual-active excluded VLANs : -
Graceful Consistency Check : Enabled
Auto-recovery status   : Disabled
Delay-restore status   : Timer is off.(timeout = 30s)
Delay-restore SVI status : Timer is off.(timeout = 10s)

```

Operational Layer3 Peer-router : Disabled  
Virtual-peerlink mode : Enabled

vPC Peer-link status

id	Port	Status	Active vlans
1	Po10	up	100,200

vPC status

Id	Port	Status	Consistency Reason	Active vlans
30	Po30	up	success success	100,200

Please check "show vpc consistency-parameters vpc <vpc-num>" for the consistency reason of down vpc and for type-2 consistency reasons for any vpc.

Leaf4#

Leaf4# show port-channel summary

Flags: D - Down P - Up in port-channel (members)  
I - Individual H - Hot-standby (LACP only)  
s - Suspended r - Module-removed  
b - BFD Session Wait  
S - Switched R - Routed  
U - Up (port-channel)  
p - Up in delay-lacp mode (member)  
M - Not in use. Min-links not met

Group	Port-Channel	Type	Protocol	Member Ports
10	Po10(SU)	Eth	NONE	--
30	Po30(SU)	Eth	LACP	Eth1/5(P)

Leaf4#

Leaf4#

Leaf4# show bgp l2v evpn

BGP routing table information for VRF default, address family L2VPN EVPN  
BGP table version is 101, Local Router ID is 192.168.1.8  
Status: s-suppressed, x-deleted, S-stale, d-dampened, h-history, \*-valid, >-best  
Path type: i-internal, e-external, c-confed, l-local, a-aggregate, r-redist, I-injected  
Origin codes: i - IGP, e - EGP, ? - incomplete, | - multipath, & - backup, 2 - best2

Network	Next Hop	Metric	LocPrf	Weight	Path
Route Distinguisher: 192.168.1.3:19536					
*>i[1]:[0300.0000.0020.1100.07db]:[0xffffffff]/152	192.168.1.3		100	0	i
* i	192.168.1.3		100	0	i
Route Distinguisher: 192.168.1.3:32867					
*>i[1]:[0300.0000.0020.1100.07db]:[0x0]/152	192.168.1.3		100	0	i
* i	192.168.1.3		100	0	i
*>i[2]:[0]:[0]:[48]:[6cb2.aefa.2b01]:[0]:[0.0.0.0]/216	192.168.1.3		100	0	i
* i	192.168.1.3		100	0	i
*>i[2]:[0]:[0]:[48]:[6cb2.aefa.2b01]:[32]:[172.20.1.100]/272	192.168.1.3		100	0	i
* i	192.168.1.3		100	0	i

Route Distinguisher: 192.168.1.3:32967

```

*>i[1]:[0300.0000.0020.1100.07db]:[0x0]/152
      192.168.1.3          100          0 i
* i      192.168.1.3          100          0 i

Route Distinguisher: 192.168.1.4:19536
* i[1]:[0300.0000.0020.1100.07db]:[0xffffffff]/152
      192.168.1.4          100          0 i
*>i      192.168.1.4          100          0 i

Route Distinguisher: 192.168.1.4:32867
* i[1]:[0300.0000.0020.1100.07db]:[0x0]/152
      192.168.1.4          100          0 i
*>i      192.168.1.4          100          0 i
* i[2]:[0]:[0]:[48]:[6cb2.aefa.2b01]:[0]:[0.0.0.0]/216
      192.168.1.4          100          0 i
*>i      192.168.1.4          100          0 i
* i[2]:[0]:[0]:[48]:[6cb2.aefa.2b01]:[32]:[172.20.1.100]/272
      192.168.1.4          100          0 i
*>i      192.168.1.4          100          0 i

Route Distinguisher: 192.168.1.4:32967
* i[1]:[0300.0000.0020.1100.07db]:[0x0]/152
      192.168.1.4          100          0 i
*>i      192.168.1.4          100          0 i

Route Distinguisher: 192.168.1.8:32867 (L2VNI 5001002)
*>i[1]:[0300.0000.0020.1100.07db]:[0x0]/152
      192.168.1.3          100          0 i
*|i      192.168.1.4          100          0 i
*>l[2]:[0]:[0]:[48]:[003a.9c07.9b07]:[0]:[0.0.0.0]/216
      192.168.1.51          100          32768 i
*>l[2]:[0]:[0]:[48]:[005d.73bb.10fc]:[0]:[0.0.0.0]/216
      192.168.1.51          100          32768 i
*>i[2]:[0]:[0]:[48]:[6cb2.aefa.2b01]:[0]:[0.0.0.0]/216
      192.168.1.3          100          0 i
*|i      192.168.1.4          100          0 i
*>l[2]:[0]:[0]:[48]:[005d.73bb.10fc]:[32]:[172.20.1.101]/272
      192.168.1.51          100          32768 i
*>i[2]:[0]:[0]:[48]:[6cb2.aefa.2b01]:[32]:[172.20.1.100]/272
      192.168.1.3          100          0 i
*|i      192.168.1.4          100          0 i

Route Distinguisher: 192.168.1.8:32967 (L2VNI 5001001)
*>i[1]:[0300.0000.0020.1100.07db]:[0x0]/152
      192.168.1.3          100          0 i
*|i      192.168.1.4          100          0 i
*>l[2]:[0]:[0]:[48]:[003a.9c07.9b07]:[0]:[0.0.0.0]/216
      192.168.1.51          100          32768 i

Route Distinguisher: 192.168.1.8:65534 (L2VNI 0)
*>i[1]:[0300.0000.0020.1100.07db]:[0xffffffff]/152
      192.168.1.3          100          0 i
*|i      192.168.1.4          100          0 i

Route Distinguisher: 192.168.1.8:3 (L3VNI 500001)
*>l[2]:[0]:[0]:[48]:[003a.9c07.9b07]:[0]:[0.0.0.0]/216
      192.168.1.51          100          32768 i
*>i[2]:[0]:[0]:[48]:[6cb2.aefa.2b01]:[32]:[172.20.1.100]/272
      192.168.1.3          100          0 i
*|i      192.168.1.4          100          0 i

```