

Configurazione e verifica di multihoming ESI LACP in VXLAN VPN

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Introduzione

In questo documento viene descritto come implementare il protocollo LACP (Link Aggregation Control Protocol) su una VXLAN attiva/attiva su Nexus 9000.

Prerequisiti

Requisiti

Cisco raccomanda la conoscenza dei seguenti argomenti:

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

Componenti usati

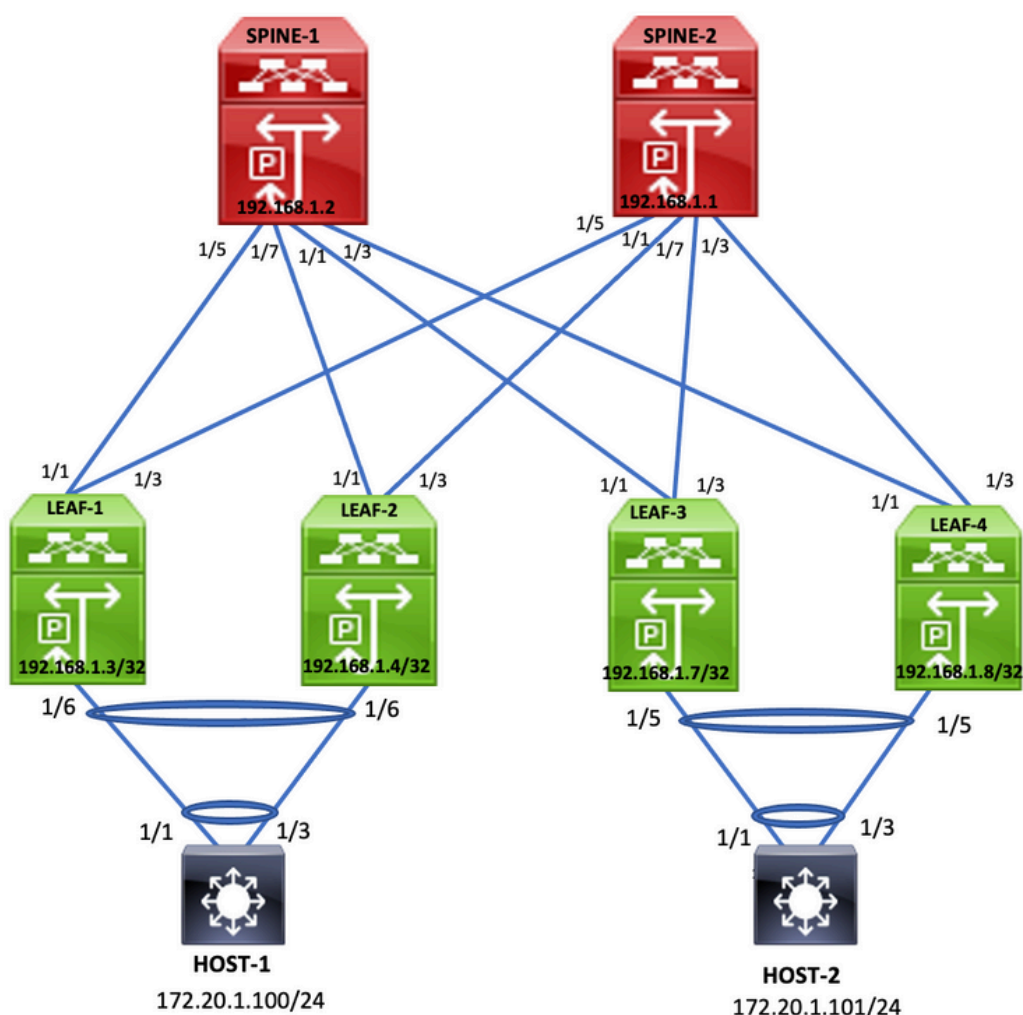
Le informazioni fornite in questo documento si basano sulle seguenti versioni software e hardware:

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

Le informazioni discusse in questo documento fanno riferimento a dispositivi usati in uno specifico ambiente di emulazione. Su tutti i dispositivi menzionati nel documento la configurazione è stata ripristinata ai valori predefiniti. Se la rete è operativa, valutare attentamente eventuali conseguenze derivanti dall'uso dei comandi.

Configurazione

Esempio di rete



Dorso-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 12vpn 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 12vpn 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 12vpn 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 12vpn evpn
    send-community extended
    route-reflector-client
```

Dorso-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
```

Foglia-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 vac1 0
```

```
hardware access-list tcam region e-rac1 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
```

Foglia 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
```

Foglia-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

```

Foglia-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
```

Verifica

Fare riferimento a questa sezione per verificare che la configurazione funzioni correttamente.

```
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#

```

Risoluzione dei problemi

Le informazioni contenute in questa sezione permettono di risolvere i problemi relativi alla configurazione.

```

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-Channel	Type	Protocol	Member Ports
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
 *>| 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])
 *>| [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-      Type      Protocol  Member Ports
  Channel
-----
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

" 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-redirect, 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-      Type      Protocol  Member Ports  
  Channel  
-----
```

```
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

```

Informazioni su questa traduzione

Cisco ha tradotto questo documento utilizzando una combinazione di tecnologie automatiche e umane per offrire ai nostri utenti in tutto il mondo contenuti di supporto nella propria lingua. Si noti che anche la migliore traduzione automatica non sarà mai accurata come quella fornita da un traduttore professionista. Cisco Systems, Inc. non si assume alcuna responsabilità per l'accuratezza di queste traduzioni e consiglia di consultare sempre il documento originale in inglese (disponibile al link fornito).