

在Nexus 9300中設定SR MPLS上的第3層EVPN [eBGP]

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簡介

本檔案介紹如何在具有外部BGP的Nexus 9300上透過區段路由(SR)多重通訊協定標籤交換部署第3層以太網路VPN(EVPN)。

必要條件

需求

思科建議您瞭解以下主題：

- 邊界閘道通訊協定(BGP)
- L3VPN
- EVPN
- SR

採用元件

本文中的資訊係根據以下軟體和硬體版本：

- 脊柱硬體 — 運行版本10.2(2)的9336C-FX
- 枝葉硬體 — 93240行10.2(2)版的YC-FX2
- 客戶端 — 92160YC-X(Host-1),Catalyst-3850(Host-2)

本文中的資訊是根據特定實驗室環境內的裝置所建立。文中使用到的所有裝置皆從已清除 (預設) 的組態來啟動。如果您的網路運作中，請確保您瞭解任何指令可能造成的影響。

背景資訊

MPLS L3VPN重述

VPN是：

- 基於IP的網路，通過公共基礎設施提供專用網路服務。
- 允許通過Internet或其它公共或專用網路相互私下通訊的一組站點。

傳統VPN是通過配置到VPN中所有站點的全網狀隧道或永久虛擬電路(PVC)建立的。這種型別的VPN不易維護或擴展，因為新增新站點需要更改VPN中的每個邊緣裝置。

基於MPLS的VPN在第3層建立，並基於對等體模型。對等體模型使服務提供商和CE能夠交換第3層路由資訊。服務提供商在沒有CE參與的情況下在CE站點之間中繼資料。

MPLS VPN比傳統VPN更易於管理和擴展。向MPLS VPN新增新站點時，僅需要更新向客戶站點提供服務的服務提供商的邊緣路由器。

以下是MPLS VPN的元件：

- 提供商(P)路由器 — 提供商網路核心的路由器。PE路由器運行MPLS交換，並且不會將VPN標籤附加到路由資料包。VPN標籤用於將資料包定向到正確的專用網路或CE邊緣路由器。
- 提供商邊緣(PE)路由器 — 根據接收傳入資料包的介面或子介面將VPN標籤附加到這些資料包的路由器，同時附加MPLS核心標籤。PE路由器直接連線到路由器。
- 客戶(C)路由器 — 網際網路服務提供商(ISP)或企業網路中的路由器。
- 客戶邊緣(CE)路由器 — ISP網路中的邊緣路由器，連線到網路上的PE路由器。CE路由器必須與PE路由器介面。

含L3VPN(MPLS SR)的EVPN概觀

資料中心(DC)部署採用了虛擬可擴展LAN(VXLAN)EVPN或MPLS EVPN，其優勢包括EVPN控制平面學習、多租戶、無縫移動性、冗餘和更輕鬆的POD新增。同樣，CORE是基於標籤分發協定(LDP)的MPLS L3VPN網路，或者是從傳統的基於MPLS L3VPN LDP的底層向更複雜的解決方案(如SR)過渡。

SR的優點如下：

- 整合內部閘道通訊協定(IGP)和MPLS控制平面
- 更簡單的流量工程方法
- 更輕鬆的配置
- 軟體定義網路(SDN)採用

EVPN(RFC 7432)是基於BGP MPLS的解決方案，已用於虛擬化資料中心網路中的下一代乙太網服務。它使用多個塊，如路由。

區分器(RD)、路由目標(RT)和虛擬路由和轉發(VRF)與現有的MPLS技術。

NXOS 7.0(3)I6(1)版本中引入的L3 EVPN over SR使用帶MPLS封裝的EVPN第5類路由。它為演化的資料中心服務提供多租戶、可擴充性和高效能。

附註：在DC中，資料平面可以是VXLAN或MPLS。

傳統MPLS第3層VPN

主構建塊：RD、RT和VRF

用於傳輸的底層層：IGP、LDP和RSVP-TE

服務的覆蓋層：VPNv4和VPNv6

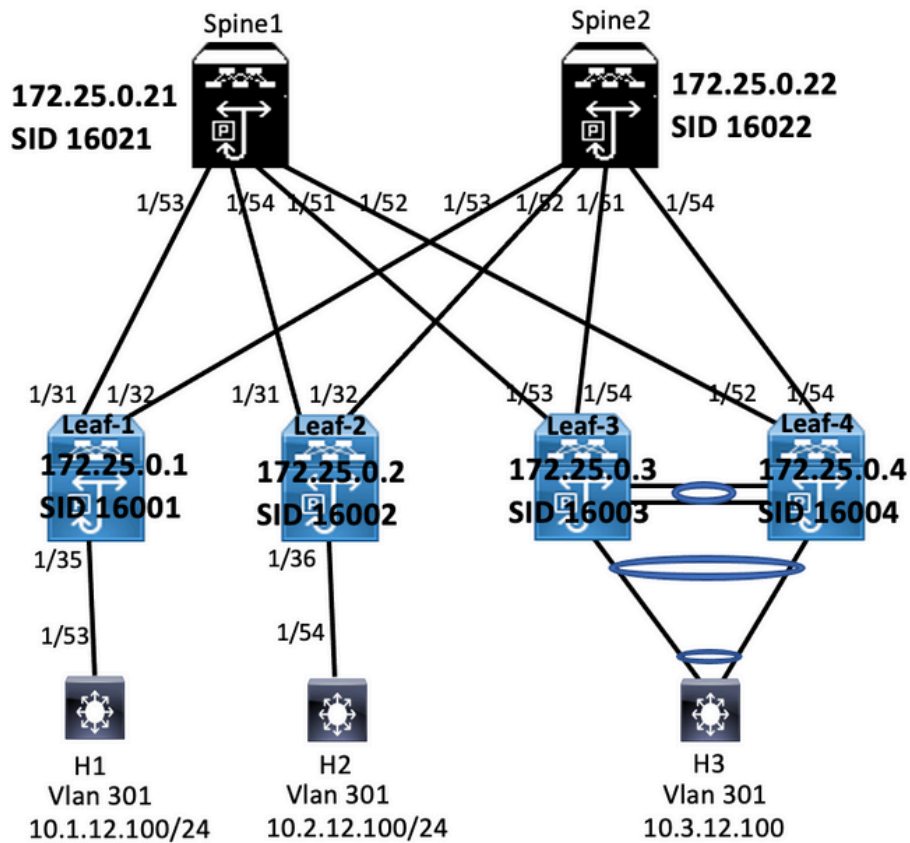
使用SR的MPLS第3層VPN

主構建塊：RD、RT和VRF

用於傳輸的底層層：IGP/BGP-LU和SR-TE

服務的覆蓋層：EVPN

網路圖表



高級配置

1. 安裝功能
2. 配置IP地址 — 襯底
3. 設定IGP/MP - BGP
4. 配置VLAN和EVPN重疊
5. 在主機和枝葉之間配置e-BGP

Leaf-1		
Enabling Features	Interface Configuration	BGP/EVPN Configuration
<pre>install feature-set mpls feature-set mpls feature bgp feature mpls segment-routing feature mpls evpn feature interface-vlan feature lisp feature mpls oam feature mpls segment-routing traffic-engineering vlan 1,301-310 segment-routing mpls global-block 16000 24000 connected-prefix-sid-map address-family ipv4 172.25.0.1/32 absolute 16001 ip prefix-list node-sid-loopback seq 10 permit 172.25.0.1/32 ip as-path access-list LOCALLY-ORIGINATE seq 1 permit "65534" ip as-path access-list LOCALLY-ORIGINATE seq 2 permit "65" route-map NODE-SID-MED permit 10 match ip address prefix-list node-sid-loopback set metric 100 route-map NODE-SID-MED permit 20 route-map SET_NH permit 5 match community MATCH-65534:65534. set ip next-hop unchanged route-map SET_NH permit 10 match as-path LOCALLY-ORIGINATE set ip next-hop 172.25.0.1 vrf context VPN-A rd auto address-family ipv4 unicast route-target import 301:301 route-target import 301:301 evpn route-target export 301:301 route-target export 301:301 evpn vrf context VPN-B rd auto address-family ipv4 unicast route-target import 302:302 route-target import 302:302 evpn route-target export 302:302 route-target export 302:302 evpn</pre>	<pre>interface Vlan301 ip access-group deny-to-core_ra in vrf member VPN-A no ip redirects ip address 10.1.12.1/24 ip directed-broadcast ip-dir-bcast ip arp timeout 720 interface Vlan302 ip access-group deny-to-core_ra in vrf member VPN-B no ip redirects ip address 10.1.13.1/24 ip directed-broadcast ip-dir-bcast ip arp timeout 720 interface Ethernet1/31 description connected to spine1 - 1/53 - 192.168.1.10 mtu 9216 logging event port link-status no ip redirects ip address 192.168.1.9/30 ip arp timeout 14400 mpls ip forwarding interface Ethernet1/32 description connected to spine2 - 1/53 - 192.168.1.14 mtu 9216 logging event port link-status no ip redirects ip address 192.168.1.13/30 ip arp timeout 14400 mpls ip forwarding interface Ethernet1/35 switchport switchport mode trunk switchport trunk allowed vlan 301-310 no shutdown interface loopback0 ip address 172.25.0.1/32 no shut</pre>	<pre>router bgp 65534 router-id 172.25.0.1 disable-policy-batching bestpath as-path multipath-relax bestpath med missing-as-worst log-neighbor-changes event-history detail size large nexthop suppress-default-resolution address-family ipv4 unicast network 172.25.0.1/32 maximum-paths 4 maximum-paths ibgp 4 allocate-label route-map node-sid-label address-family ipv4 labeled-unicast prefix-priority high address-family I2vpn evpn template peer EBGP-SPINE remote-as 64087 description EBGP-PEERING-to-AGG address-family ipv4 unicast allowas-in 1 send-community send-community extended route-map NODE-SID-MED out no advertise local-labeled-route soft-reconfiguration inbound address-family ipv4 labeled-unicast allowas-in 1 send-community send-community extended route-map NODE-SID-MED out soft-reconfiguration inbound always address-family I2vpn evpn allowas-in 1 send-community send-community extended filter-list LOCALLY-ORIGINATE out route-map SET_NH out encapsulation mpls neighbor 192.168.1.10 inherit peer EBGP-SPINE neighbor 192.168.1.14 inherit peer EBGP-SPINE</pre>

Leaf-2		
Enabling Features	Interface Configuration	BGP/EVPN Configuration
<pre>install feature-set mpls feature-set mpls feature bgp feature mpls segment-routing feature mpls evpn feature interface-vlan feature lisp feature mpls oam feature mpls segment-routing traffic-engineering vlan 1,301-310 segment-routing mpls global-block 16000 24000 connected-prefix-sid-map address-family ipv4 172.25.0.2/32 absolute 16002 ip prefix-list node-sid-loopback seq 10 permit 172.25.0.2/32 ip as-path access-list LOCALLY-ORIGINATE seq 1 permit "65534" ip as-path access-list LOCALLY-ORIGINATE seq 2 permit "65" route-map NODE-SID-MED permit 10 match ip address prefix-list node-sid-loopback set metric 100 route-map NODE-SID-MED permit 20 route-map SET_NH permit 5 match community MATCH-65534:65534. set ip next-hop unchanged route-map SET_NH permit 10 match as-path LOCALLY-ORIGINATE set ip next-hop 172.25.0.2 vrf context VPN-A rd auto address-family ipv4 unicast route-target import 301:301 route-target import 301:301 evpn route-target export 301:301 route-target export 301:301 evpn vrf context VPN-B rd auto address-family ipv4 unicast route-target import 302:302 route-target import 302:302 evpn route-target export 302:302 route-target export 302:302 evpn</pre>	<pre>interface Vlan301 no shutdown ip access-group deny-to-core_ra in vrf member VPN-A no ip redirects ip address 10.2.12.1/24 ip directed-broadcast ip-dir-bcast ip arp timeout 720 interface Vlan302 no shutdown ip access-group deny-to-core_ra in vrf member VPN-B no ip redirects ip address 10.2.13.1/24 ip directed-broadcast ip-dir-bcast ip arp timeout 720 interface Ethernet1/3 switchport switchport mode trunk switchport trunk allowed vlan 301-310 no shutdown interface Ethernet1/31 description connected to spine1 - 1/54 - 192.168.2.10 mtu 9216 logging event port link-status no ip redirects ip address 192.168.2.9/30 ip arp timeout 14400 mpls ip forwarding interface Ethernet1/32 description connected to spine2 - 1/52 - 192.168.2.14 mtu 9216 logging event port link-status no ip redirects ip address 192.168.2.13/30 ip arp timeout 14400 mpls ip forwarding interface Ethernet1/36 switchport mode trunk switchport trunk allowed vlan 301-310 interface loopback0 ip address 172.25.0.2/32</pre>	<pre>router bgp 65534 router-id 172.25.0.2 disable-policy-batching bestpath as-path multipath-relax bestpath med missing-as-worst log-neighbor-changes event-history detail size large nexthop suppress-default-resolution address-family ipv4 unicast network 172.25.0.2/32 maximum-paths 4 maximum-paths ibgp 4 allocate-label route-map node-sid-label address-family ipv4 labeled-unicast prefix-priority high address-family I2vpn evpn template peer EBGP-SPINE remote-as 64087 description EBGP-PEERING-to-AGG address-family ipv4 unicast allowas-in 1 send-community send-community extended route-map NODE-SID-MED out no advertise local-labeled-route soft-reconfiguration inbound address-family ipv4 labeled-unicast allowas-in 1 send-community send-community extended route-map NODE-SID-MED out soft-reconfiguration inbound always address-family I2vpn evpn allowas-in 1 send-community send-community extended filter-list LOCALLY-ORIGINATE out route-map SET_NH out encapsulation mpls neighbor 192.168.2.10 inherit peer EBGP-SPINE neighbor 192.168.2.14 inherit peer EBGP-SPINE</pre>

Spine-1		
Enabling Features	Interface Configuration	BGP/EVPN Configuration
<pre>install feature-set mpls feature-set mpls feature bgp feature mpls segment-routing feature mpls evpn feature interface-vlan feature lisp feature mpls oam feature mpls segment-routing traffic-engineering vlan 1 segment-routing mpls global-block 16000 24000 connected-prefix-sid-map address-family ipv4 172.25.0.21/32 absolute 16021 ip prefix-list NH-RESTRICT seq 5 permit 0.0.0.0/0 ip prefix-list node-sid-loopback seq 5 permit 172.25.0.21/32 route-map NH-RESTRICT deny 10 match ip address prefix-list NH-RESTRICT route-map NH-RESTRICT permit 20 route-map NH_UNCHG permit 10 set ip next-hop unchanged</pre>	<pre>interface Ethernet1/53 description connected to Leaf1 - 1/31 - 192.168.1.9 mtu 9216 logging event port link-status no ip redirects ip address 192.168.1.10/30 ip arp timeout 14400 mpls ip forwarding no shutdown interface Ethernet1/54 description connected to Leaf2- 1/31 - 192.168.2.9 mtu 9216 logging event port link-status no ip redirects ip address 192.168.2.10/30 ip arp timeout 14400 mpls ip forwarding no shutdown interface loopback0 ip address 172.25.0.21/32 no shutdown</pre>	<pre>router bgp 64087 router-id 172.25.0.21 bestpath as-path multipath-relax bestpath med missing-as-worst log-neighbor-changes nexthop suppress-default-resolution address-family ipv4 unicast network 172.25.0.21/32 maximum-paths 4 nexthop route-map NH-RESTRICT allocate-label route-map node-sid-label address-family ipv4 labeled-unicast prefix-priority high address-family l2vpn evpn retain route-target all template peer EBG-ACCESS remote-as 65534 description EBG-PEERING-to-ACCESS address-family ipv4 unicast disable-peer-as-check send-community send-community extended default-originate no advertise local-labeled-route soft-reconfiguration inbound address-family ipv4 labeled-unicast disable-peer-as-check send-community send-community extended soft-reconfiguration inbound address-family l2vpn evpn disable-peer-as-check send-community send-community extended route-map NH_UNCHG out encapsulation mpls neighbor 192.168.1.9 inherit peer EBG-ACCESS neighbor 192.168.2.9 inherit peer EBG-ACCESS</pre>

Spine-2		
Enabling Feature	Interface Configuration	BGP/EVPN Configuration
<pre>install feature-set mpls feature-set mpls feature bgp feature mpls segment-routing feature mpls evpn feature interface-vlan feature lisp feature mpls oam feature mpls segment-routing traffic-engineering vlan 1 segment-routing mpls global-block 16000 24000 connected-prefix-sid-map address-family ipv4 172.25.0.22/32 absolute 16021 ip prefix-list NH-RESTRICT seq 5 permit 0.0.0.0/0 ip prefix-list node-sid-loopback seq 5 permit 172.25.0.22/32 route-map NH-RESTRICT deny 10 match ip address prefix-list NH-RESTRICT route-map NH-RESTRICT permit 20 route-map NH_UNCHG permit 10 set ip next-hop unchanged</pre>	<pre>interface Ethernet1/52 description connected to Leaf2 - 1/31 - 192.168.2.13 mtu 9216 logging event port link-status no ip redirects ip address 192.168.2.14/30 ip arp timeout 14400 mpls ip forwarding no shutdown interface Ethernet1/53 description connected to Leaf2- 1/32 - 192.168.1.13 mtu 9216 logging event port link-status no ip redirects ip address 192.168.1.14/30 ip arp timeout 14400 mpls ip forwarding no shutdown interface loopback0 ip address 172.25.0.22/32 no shut</pre>	<pre>router bgp 64087 router-id 172.25.0.22 bestpath as-path multipath-relax bestpath med missing-as-worst log-neighbor-changes nexthop suppress-default-resolution address-family ipv4 unicast network 172.25.0.22/32 maximum-paths 4 nexthop route-map NH-RESTRICT allocate-label route-map node-sid-label address-family ipv4 labeled-unicast prefix-priority high address-family l2vpn evpn retain route-target all template peer EBG-ACCESS remote-as 65534 description EBG-PEERING-to-ACCESS address-family ipv4 unicast disable-peer-as-check send-community send-community extended default-originate no advertise local-labeled-route soft-reconfiguration inbound address-family ipv4 labeled-unicast disable-peer-as-check send-community send-community extended soft-reconfiguration inbound address-family l2vpn evpn disable-peer-as-check send-community send-community extended route-map NH_UNCHG out encapsulation mpls neighbor 192.168.1.13 inherit peer EBG-ACCESS neighbor 192.168.2.13 inherit peer EBG-ACCESS</pre>

Host-1 Configuration

```
install feature-set mpls
feature mpls
interface Ethernet1/53
switchport
switchport mode trunk
switchport trunk allowed vlan 301-310
no shut

interface vlan 301
no shutdown
no ip redirects
ip address 10.1.12.100/24
ip directed-broadcast ip-dir-bcast
ip arp timeout 720
```

Host-2 Configuration

```
install feature-set mpls
feature mpls
interface Ethernet1/54
switchport
switchport mode trunk
switchport trunk allowed vlan 301-310
no shut

interface vlan 301
no shutdown
no ip redirects
ip address 10.2.12.100/24
ip directed-broadcast ip-dir-bcast
ip arp timeout 720
```

驗證

使用本節內容，確認您的組態是否正常運作。

```
H1(config)# show ip int brief
```

```
IP Interface Status for VRF "default"(1)
Interface      IP Address   Interface Status
Vlan301        10.1.12.100 protocol-up/link-up/admin-up
```

```
H1(config)# ping 10.2.12.100
PING 10.2.12.100 (10.2.12.100): 56 data bytes
64 bytes from 10.2.12.100: icmp_seq=0 ttl=251 time=0.994 ms
64 bytes from 10.2.12.100: icmp_seq=1 ttl=251 time=0.586 ms
64 bytes from 10.2.12.100: icmp_seq=2 ttl=251 time=0.677 ms
64 bytes from 10.2.12.100: icmp_seq=3 ttl=251 time=0.615 ms
64 bytes from 10.2.12.100: icmp_seq=4 ttl=251 time=0.597 ms
```

```
--- 10.2.12.100 ping statistics ---
5 packets transmitted, 5 packets received, 0.00% packet loss
round-trip min/avg/max = 0.586/0.693/0.994 ms
```

```
H2(config)# show ip int brief
```

```
IP Interface Status for VRF "default"(1)
Interface      IP Address   Interface Status
Vlan301        10.2.12.100 protocol-up/link-up/admin-up
```

```
H2(config)# ping 10.1.12.100
PING 10.1.12.100 (10.1.12.100): 56 data bytes
64 bytes from 10.1.12.100: icmp_seq=0 ttl=251 time=1.043 ms
64 bytes from 10.1.12.100: icmp_seq=1 ttl=251 time=1.933 ms
64 bytes from 10.1.12.100: icmp_seq=2 ttl=251 time=0.865 ms
64 bytes from 10.1.12.100: icmp_seq=3 ttl=251 time=0.668 ms
64 bytes from 10.1.12.100: icmp_seq=4 ttl=251 time=0.713 ms
```

```
--- 10.1.12.100 ping statistics ---
5 packets transmitted, 5 packets received, 0.00% packet loss
round-trip min/avg/max = 0.668/1.044/1.933 ms
```

疑難排解

本節提供的資訊可用於對組態進行疑難排解。

```
spine1(config-router-af)# show mpls switching
```

```
Legend:
(P)=Protected, (F)=FRR active, (*)=more labels in stack.

IPV4:
In-Label  Out-Label  FEC name      Out-Interface  Next-Hop
VRF default
16001     Pop Label  172.25.0.1/32 Eth1/53        10.1.1.9
16002     Pop Label  172.25.0.2/32 Eth1/54        10.2.1.9

In-Label  VRF
492287    default

Block    Label-Range
1        16000 - 24000
```

```
spine1(config-router-af)# show bgp l2vpn evpn
BGP routing table information for VRF default, address family L2VPN EVPN
BGP table version is 17, Local Router ID is 172.25.0.21
```

```
Network      Next Hop      Metric  LocPrf  Weight Path
Route Distinguisher: 172.25.0.1:3
*>e[5]:[0]:[0]:[24]:[12.1.12.0]/224
172.25.0.1   4294967295    0 65534 i

Route Distinguisher: 172.25.0.1:4
*>e[5]:[0]:[0]:[24]:[12.1.13.0]/224
172.25.0.1   4294967295    0 65534 i

Route Distinguisher: 172.25.0.2:3
*>e[5]:[0]:[0]:[24]:[10.2.12.0]/224
172.25.0.2   4294967295    0 65534 i

Route Distinguisher: 172.25.0.2:4
*>e[5]:[0]:[0]:[24]:[10.2.13.0]/224
172.25.0.2   4294967295    0 65534 i
```



```

ping 10.1.12.200
PING 10.1.12.200 [10.1.12.200]: 56 data bytes
64 bytes from 10.1.12.200: icmp_seq=0 ttl=254 time=1.14 ms
64 bytes from 10.1.12.200: icmp_seq=1 ttl=254 time=0.687 ms
64 bytes from 10.1.12.200: icmp_seq=2 ttl=254 time=0.636 ms
64 bytes from 10.1.12.200: icmp_seq=3 ttl=254 time=0.636 ms
64 bytes from 10.1.12.200: icmp_seq=4 ttl=254 time=0.699 ms
--- 10.1.12.200 ping statistics ---
5 packets transmitted, 5 packets received, 0.00% packet loss
round-trip min/avg/max = 0.636/0.763/1.14 ms

H3# show ip int br
IP Interface Status for VRF "default"(1)
Interface IP Address Interface Status
Vlan301 10.1.12.100 protocol-up/link-up/admin-up

H3# 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
-----
* 301 0000.0000.1111 dynamic O F F Po30
* 301 00ea.bd27.86ef dynamic O F F Po30
G - 00ea.bd27.6285 static - F F sup-eth1(R)
G 301 00ea.bd27.6285 static - F F sup-eth1(R)

```

```

H3# show ip interface brief
Interface IP Address Interface Status
Vlan301 10.1.12.200 protocol-up/link-up/admin-up
H3# ping 10.1.12.100
PING 10.1.12.100 [10.1.12.100]: 56 data bytes
64 bytes from 10.1.12.100: icmp_seq=0 ttl=254 time=1.211 ms
64 bytes from 10.1.12.100: icmp_seq=1 ttl=254 time=0.694 ms
64 bytes from 10.1.12.100: icmp_seq=2 ttl=254 time=0.68 ms
64 bytes from 10.1.12.100: icmp_seq=3 ttl=254 time=0.673 ms
64 bytes from 10.1.12.100: icmp_seq=4 ttl=254 time=0.624 ms
--- 10.1.12.100 ping statistics ---
5 packets transmitted, 5 packets received, 0.00% packet loss
round-trip min/avg/max = 0.624/0.776/1.211 ms
H3# show int vlan 301
Vlan301 is up, line protocol is up, autostate enabled
Hardware is EtherSVI, address is 00ea.bd27.86ef
H3# 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,
VLAN MAC Address Type age Secure NTFY Ports
-----
* 301 0000.0000.1111 dynamic O F F Eth1/33
* 301 00ea.bd27.6285 dynamic O F F Eth1/33
G - 00ea.bd27.86ef static - F F sup-eth1(R)
G 301 00ea.bd27.86ef static - F F sup-eth1(R)

```

```

spine-1# show bgp l2vpn evpn
BGP routing table information for VRF default, address family L2VPN Evpn
BGP table version is 188, Local Router ID is 172.25.0.21
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, l-i-
njected
Origin codes: i - IGP, e - EGP, ? - incomplete, | - multipath, & - backup, 2 - Network
Next Hop Metric LocPrf Weight Path
Route Distinguisher: 172.25.0.15
*>e[5] [0] [0] [24] [10.1.12.0]/224
172.25.0.15 4294967295 0 65534 i
Route Distinguisher: 172.25.0.137164
*>e[2] [0] [0] [48] [00ea.bd27.6285] [0] [0.0.0.0]/216
172.25.0.15 4294967295 0 65534 i
*>e[2] [0] [0] [48] [00ea.bd27.6285] [32] [10.1.12.100]/272
172.25.0.15 4294967295 0 65534 i
*>e[3] [0] [12] [172.25.0.15]/88
172.25.0.15 4294967295 0 65534 i
Route Distinguisher: 172.25.0.237164
*>e[2] [0] [0] [48] [00ea.bd27.6285] [0] [0.0.0.0]/216
172.25.0.15 4294967295 0 65534 i
*>e[2] [0] [0] [48] [00ea.bd27.6285] [32] [10.1.12.100]/272
172.25.0.15 4294967295 0 65534 i
*>e[3] [0] [12] [172.25.0.15]/88
172.25.0.15 4294967295 0 65534 i

```

```

BGP routing table information for VRF default, address family L2VPN
Evpn
BGP table version is 188, Local Router ID is 172.25.0.22
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, l-
i-
njected
Origin codes: i - IGP, e - EGP, ? - incomplete, | - multipath, & - backup, 2 -
b
Network Next Hop Metric LocPrf Weight Path
Route Distinguisher: 172.25.0.15
*>e[5] [0] [0] [24] [10.1.12.0]/224
172.25.0.15 4294967295 0 65534 i
Route Distinguisher: 172.25.0.137164
*>e[2] [0] [0] [48] [00ea.bd27.6285] [0] [0.0.0.0]/216
172.25.0.15 4294967295 0 65534 i
*>e[2] [0] [0] [48] [00ea.bd27.6285] [32] [10.1.12.100]/272
172.25.0.15 4294967295 0 65534 i
*>e[3] [0] [12] [172.25.0.15]/88
172.25.0.15 4294967295 0 65534 i
Route Distinguisher: 172.25.0.237164
*>e[2] [0] [0] [48] [00ea.bd27.6285] [0] [0.0.0.0]/216
172.25.0.15 4294967295 0 65534 i
*>e[2] [0] [0] [48] [00ea.bd27.6285] [32] [10.1.12.100]/272
172.25.0.15 4294967295 0 65534 i

```

```

spine-1# show ip int bri
IP Interface Status for VRF "default"(1)
Interface IP Address Interface Status
Lo0 172.25.0.21 protocol-up/link-up/admin-up
Eth1/45 192.168.1.10 protocol-up/link-up/admin-up
Eth1/46 192.168.2.10 protocol-up/link-up/admin-up
Eth1/52 192.168.3.10 protocol-up/link-up/admin-up

```

```

spine2# show ip int br
IP Interface Status for VRF "default"(1)
Interface IP Address Interface Status
Lo0 172.25.0.22 protocol-up/link-up/admin-up
Eth1/47 192.168.1.14 protocol-up/link-up/admin-up
Eth1/48 192.168.2.14 protocol-up/link-up/admin-up
Eth1/53 192.168.3.14 protocol-up/link-up/admin-up

```

關於此翻譯

思科已使用電腦和人工技術翻譯本文件，讓全世界的使用者能夠以自己的語言理解支援內容。請注意，即使是最佳機器翻譯，也不如專業譯者翻譯的內容準確。Cisco Systems, Inc. 對這些翻譯的準確度概不負責，並建議一律查看原始英文文件（提供連結）。