

Configurare VPN di livello 3 su SR MPLS [eBGP] in Nexus 9300

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Introduzione

Questo documento descrive come distribuire L3 Ethernet VPN (EVPN) over Segment Routing (SR) Multiprotocol Label Switching su Nexus 9300 con BGP esterno.

Prerequisiti

Requisiti

Cisco raccomanda la conoscenza dei seguenti argomenti:

- Border Gateway Protocol (BGP)
- L3VPN
- EVPN
- SR

Componenti usati

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

- SPINE Hardware - 9336C-FX con versione 10.2(2)
- Hardware FOGLIA - 93240YC-FX2 con release 10.2(2)
- CLIENT - 92160YC-X (Host-1), Catalyst-3850 (Host-2)

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.

Premesse

Riepilogo MPLS L3VPN

Una VPN è:

- Rete basata su IP che fornisce servizi di rete privati su un'infrastruttura pubblica.
- Insieme di siti a cui è consentito comunicare tra loro in privato tramite Internet o altre reti pubbliche o private.

Le VPN convenzionali vengono create dalla configurazione di una rete completa di tunnel o di circuiti virtuali permanenti (PVC) per tutti i siti di una VPN. Questo tipo di VPN non è facile da mantenere o espandere, in quanto l'aggiunta di un nuovo sito richiede una modifica a ciascun dispositivo periferico della VPN.

Le VPN basate su MPLS vengono create nel layer 3 e si basano sul modello peer. Il modello peer consente al provider di servizi e al CE di scambiare informazioni di routing di layer 3. Il fornitore di servizi inoltra i dati tra i siti CE senza l'intervento del CE.

Le VPN MPLS sono più facili da gestire ed espandere rispetto alle VPN convenzionali. Quando si aggiunge un nuovo sito a una VPN MPLS, è necessario aggiornare solo il router perimetrale del provider di servizi che fornisce servizi alla sede del cliente.

Questi sono i componenti della VPN MPLS:

- Provider (P) router- Router nel nucleo della rete del provider. I router PE eseguono la commutazione MPLS e non collegano etichette VPN ai pacchetti indirizzati. Le etichette VPN vengono utilizzate per indirizzare i pacchetti di dati alla rete privata corretta o al router edge CE.
- Provider Edge (PE) router: router che collega l'etichetta VPN ai pacchetti in arrivo in base all'interfaccia o alla sottointerfaccia su cui vengono ricevuti e allega anche le etichette di base MPLS. Un router PE si collega direttamente a un router.
- Cliente (C) router-router nella rete ISP (Internet Service Provider) o aziendale.
- Router Customer Edge (CE): router perimetrale sulla rete dell'ISP che si connette al router PE sulla rete. Un router CE deve interfacciarsi con un router PE.

Panoramica di EVPN con L3VPN (MPLS SR)

Le installazioni dei centri dati (DC) hanno adottato EVPN o MPLS EVPN per i vantaggi offerti da VXLAN (Virtual Extensible LAN), ad esempio apprendimento control-plane EVPN, multitenancy, mobilità ottimale, ridondanza e aggiunte POD più semplici. Analogamente, il CORE è una rete MPLS L3VPN basata su LDP (Label Distribution Protocol) o una transizione dalla tradizionale sublay basata su LDP di MPLS L3VPN a una soluzione più sofisticata come la SR.

La SR è adottata per i suoi vantaggi, quali:

- Piani di controllo IGP (Unified interior gateway protocol) e MPLS
- Metodi di progettazione del traffico più semplici
- Configurazione più semplice
- Adozione di SDN (Software-Defined Networking)

EVPN (RFC 7432) è una soluzione basata su BGP MPLS che è stata utilizzata per i servizi Ethernet di nuova generazione in una rete di un centro dati virtualizzata. Utilizza diversi blocchi, ad esempio Route.

Distinguitore (RD), Route Target (RT) e Virtual Routing and Forwarding (VRF) dalle tecnologie MPLS esistenti.

L3 EVPN over SR, introdotto in NXOS 7.0(3)I6(1), utilizza la route EVPN Type-5 con incapsulamento MPLS. Offre multi-tenant, scalabilità e prestazioni elevate per i servizi evoluti del centro dati.

Nota: In DC, il piano dati può essere VXLAN o MPLS.

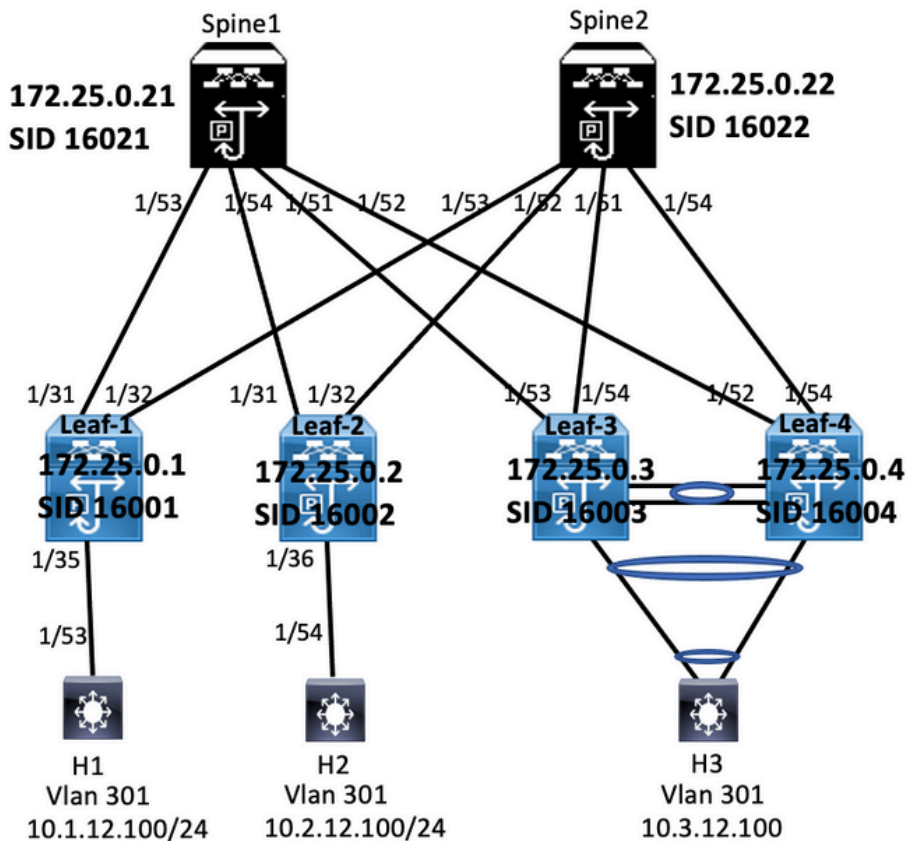
VPN MPLS L3 tradizionale

Blocchi predefiniti principali: RD, RT e VRF
Livello inferiore per trasporto: IGP, LDP e RSVP-TE
Livello overlay per servizio: VPNv4 e VPNv6

MPLS L3 VPN over SR

Blocchi predefiniti principali: RD, RT e VRF
Livello inferiore per trasporto: IGP/BGP-LU e SR-TE
Livello overlay per servizio: EVPN

Esempio di rete



Configurazione di alto livello

1. Funzionalità di installazione
2. Configura indirizzo IP - Sottolineato
3. Configurare IGP/MP - BGP
4. Configurazione della sovrapposizione VLAN ed EVPN
5. Configurazione di e-BGP tra host e FOGLIA

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 allow-as-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 allow-as-in 1 send-community send-community extended route-map NODE-SID-MED out soft-reconfiguration inbound always address-family I2vpn evpn allow-as-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 allow-as-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 allow-as-in 1 send-community send-community extended route-map NODE-SID-MED out soft-reconfiguration inbound always address-family I2vpn evpn allow-as-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 I2vpn evpn retain route-target all template peer EBGp-ACCESS remote-as 65534 description EBGp-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 I2vpn evpn disable-peer-as-check send-community send-community extended route-map NH_UNCHG out encapsulation mpls neighbor 192.168.1.9 inherit peer EBGp-ACCESS neighbor 192.168.2.9 inherit peer EBGp-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 Leaf1- 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 I2vpn evpn retain route-target all template peer EBGp-ACCESS remote-as 65534 description EBGp-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 I2vpn evpn disable-peer-as-check send-community send-community extended route-map NH_UNCHG out encapsulation mpls neighbor 192.168.1.13 inherit peer EBGp-ACCESS neighbor 192.168.2.13 inherit peer EBGp-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
```

Verifica

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

```
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
```

Risoluzione dei problemi

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

```
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=0.658 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
```

```
H18 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
```

```
H18 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)
```

```
H28 show ip interface brief
Interface IP Address Interface Status
Vlan301 10.1.12.200 protocol-up/link-up/admin-up
H28 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=0.673 ms
64 bytes from 10.1.12.100: icmp_seq=3 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
```

```
H28 show int vlan 301
Vlan301 is up, line protocol is up, autostate enabled
Hardware is EtherSVL, address is 00ea.bd27.86ef
H28 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)
```

```
spine18 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, I-
rejected
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]/24 0 65534 |
Route Distinguisher: 172.25.0.137164
*>e[2]:[0]:[0]:[48]:[00ea.bd27.6285]:[0]:[0.0.0.0]/216 0 65534 |
172.25.0.15 4294967295 0 65534 |
*>e[2]:[0]:[0]:[48]:[00ea.bd27.6285]:[32]:[10.1.12.100]/272 0 65534 |
172.25.0.15 4294967295 0 65534 |
*>e[3]:[0]:[32]:[172.25.0.15]/88 0 65534 |
172.25.0.15 4294967295 0 65534 |
Route Distinguisher: 172.25.0.237164
*>e[2]:[0]:[0]:[48]:[00ea.bd27.6285]:[0]:[0.0.0.0]/216 0 65534 |
172.25.0.15 4294967295 0 65534 |
*>e[2]:[0]:[0]:[48]:[00ea.bd27.6285]:[32]:[10.1.12.100]/272 0 65534 |
172.25.0.15 4294967295 0 65534 |
*>e[3]:[0]:[32]:[172.25.0.15]/88 0 65534 |
172.25.0.15 4294967295 0 65534 |
Route Distinguisher: 172.25.0.337164
*>e[2]:[0]:[0]:[48]:[00ea.bd27.86ef]:[0]:[0.0.0.0]/216 0 65534 |
172.25.0.3 4294967295 0 65534 |
*>e[2]:[0]:[0]:[48]:[00ea.bd27.86ef]:[32]:[10.1.12.200]/272 0 65534 |
172.25.0.3 4294967295 0 65534 |
*>e[3]:[0]:[32]:[172.25.0.3]/88 0 65534 |
172.25.0.3 4294967295 0 65534 |
```

```
spine18 show ip int br
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
```

```
spine28 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
spine28
```

```
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, I-
rejected
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]/24 0 65534 |
172.25.0.15 4294967295 0 65534 |
Route Distinguisher: 172.25.0.137164
*>e[2]:[0]:[0]:[48]:[00ea.bd27.6285]:[0]:[0.0.0.0]/216 0 65534 |
172.25.0.15 4294967295 0 65534 |
*>e[2]:[0]:[0]:[48]:[00ea.bd27.6285]:[32]:[10.1.12.100]/272 0 65534 |
172.25.0.15 4294967295 0 65534 |
*>e[3]:[0]:[32]:[172.25.0.15]/88 0 65534 |
172.25.0.15 4294967295 0 65534 |
Route Distinguisher: 172.25.0.237164
*>e[2]:[0]:[0]:[48]:[00ea.bd27.6285]:[0]:[0.0.0.0]/216 0 65534 |
172.25.0.15 4294967295 0 65534 |
*>e[2]:[0]:[0]:[48]:[00ea.bd27.6285]:[32]:[10.1.12.100]/272 0 65534 |
172.25.0.15 4294967295 0 65534 |
Route Distinguisher: 172.25.0.337164
*>e[2]:[0]:[0]:[48]:[00ea.bd27.86ef]:[0]:[0.0.0.0]/216 0 65534 |
172.25.0.3 4294967295 0 65534 |
*>e[2]:[0]:[0]:[48]:[00ea.bd27.86ef]:[32]:[10.1.12.200]/272 0 65534 |
172.25.0.3 4294967295 0 65534 |
*>e[3]:[0]:[32]:[172.25.0.3]/88 0 65534 |
172.25.0.3 4294967295 0 65534 |
```

```
spine28 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
spine28
```

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).