

在多站点设置中排除EVPN/VxLAN故障

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简介

本文档介绍在多站点设置中排除以太网VPN/虚拟可扩展局域网(EVPN/VxLAN)故障的方法。

先决条件

要求

Cisco 建议您了解以下主题：

- 多协议标签交换(MPLS)第3层VPN
- 多协议边界网关协议(MP-BGP)
- EVPN

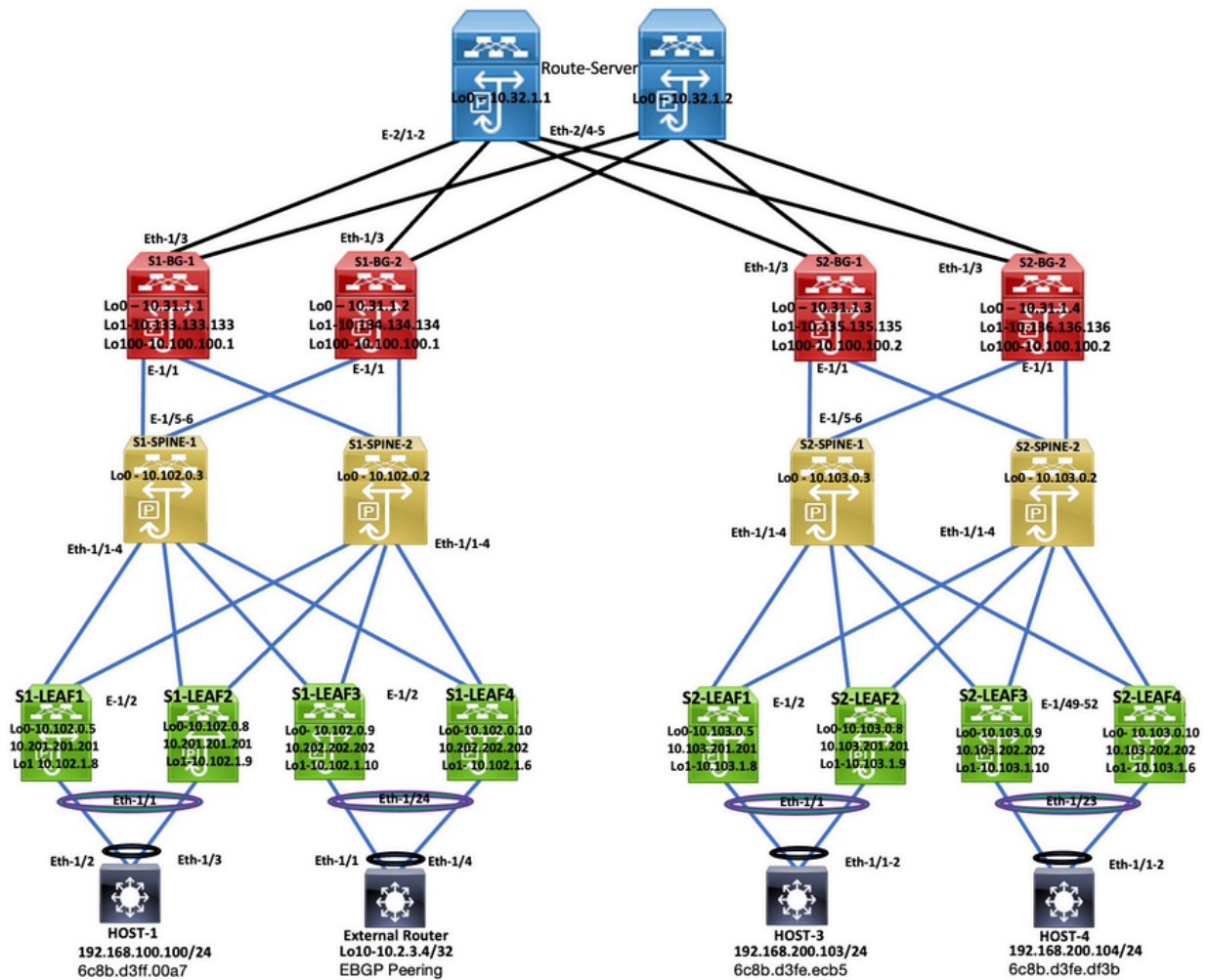
使用的组件

本文档中的信息基于以下软件和硬件版本：

| | | |
|--|----------------|--------------|
| 所有站点枝叶 | N9K-C9336C-FX2 | NXOS:10.2(3) |
| S1_Spine1 | N9K-C9364C | NXOS:10.2(4) |
| S1_Spine2 | N9K-C9364C | NXOS:9.3(5) |
| S1_Border Gateway1、S2_Border Gateway2、S2_Border Gateway1 | N9K-C9332C | NXOS:9.3(9) |
| S1_边界网关2 | N9K-C9332C | NXOS:10.2(4) |
| 路由服务器 | N9K-C9396PX | NXOS:9.2(2) |
| 主机1 | N3K-C3264C-E | NXOS:9.3(5) |
| 主机 -2 和主机 -3 | N3K-C3264C-E | NXOS:9.2(2) |

本文档中的信息都是基于特定实验室环境中的设备编写的。本文档中使用的所有设备最初均采用原始（默认）配置。如果您的网络处于活动状态，请确保您了解所有命令的潜在影响。

拓扑



拓扑

本文档介绍流量从DC-2 Host-3(192.168.200.104/24)发往何处，然后与数据包一起传输至目标DC-1 Host-2(10.2.3.4)。

检验控制平面

要验证控制平面，请输入以下命令：

```
<#root>
```

```
HOST_3#
```

```
show ip int brief
```

```
IP Interface Status for VRF "default"(1)
Interface IP Address Interface Status
```

```
Vlan100 192.168.100.103 protocol-up/link-up/admin-up
```

```
Vlan200 192.168.200.103 protocol-up/link-up/admin-up  
HOST_3#
```

```
External_Router#  
External_Router#
```

```
show ip int brie
```

```
IP Interface Status for VRF "default"(1)  
Interface IP Address Interface Status  
Vlan100 192.168.100.102 protocol-up/link-up/admin-up  
Vlan200 192.168.200.102 protocol-up/link-up/admin-up
```

```
Lo10 10.2.3.4 protocol-up/link-up/admin-up
```

```
External_Router#
```

```
HOST_3#  
HOST_3#
```

```
ping 10.2.3.4 source 192.168.100.103
```

```
PING 10.2.3.4 (10.2.3.4) from 192.168.100.103: 56 data bytes  
64 bytes from 10.2.3.4: icmp_seq=0 ttl=250 time=1.153 ms  
64 bytes from 10.2.3.4: icmp_seq=1 ttl=250 time=0.569 ms  
64 bytes from 10.2.3.4: icmp_seq=2 ttl=250 time=0.562 ms  
64 bytes from 10.2.3.4: icmp_seq=3 ttl=250 time=0.525 ms  
64 bytes from 10.2.3.4: icmp_seq=4 ttl=250 time=0.527 ms  
--- 10.2.3.4 ping statistics ---  
5 packets transmitted, 5 packets received, 0.00% packet loss  
round-trip min/avg/max = 0.525/0.667/1.153 ms  
HOST_3#
```

```
<#root>
```

```
S2-Leaf1#
```

```
show bgp l2vpn evp vrf vrf_2
```

```
BGP routing table information for VRF default, address family L2VPN EVPN  
BGP table version is 4420, Local Router ID is 10.103.0.5  
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: 10.103.0.5:5 (L3VNI 4000502)  
*>i[5]:[0]:[0]:[24]:[192.168.100.0]/224  
10.100.100.2 100 0 300 100 i  
  
*>i[5]:[0]:[0]:[32]:[10.2.3.4]/224  
10.100.100.2 100 0 300 100 65111 i  
  
*>i[5]:[0]:[0]:[32]:[10.100.100.1]/224  
10.100.100.2 100 0 300 100 i  
  
*>i[5]:[0]:[0]:[32]:[10.100.100.2]/224
```

10.100.100.2

S2-Leaf2#

show bgp l2vpn evpn vrf vrf_2

BGP routing table information for VRF default, address family L2VPN EVPN
BGP table version is 4389, Local Router ID is 10.103.0.8
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: 10.103.0.8:5 (L3VNI 4000502) | | | | | |
| *>i[5]:[0]:[0]:[24]:[192.168.100.0]/224 | 10.100.100.2 | | 100 | 0 300 100 | i |
| *>i[5]:[0]:[0]:[32]:[10.2.3.4]/224 | 10.100.100.2 | | 100 | 0 300 100 65111 | i |
| *>i[5]:[0]:[0]:[32]:[10.100.100.1]/224 | 10.100.100.2 | | 100 | 0 300 100 | i |
| *>i[5]:[0]:[0]:[32]:[10.100.100.2]/224 | 10.100.100.2 | | 100 | 0 300 100 | i |

S2-Leaf2#

S2-leaf3#

show bgp l2vpn evpn vrf vrf_2

BGP routing table information for VRF default, address family L2VPN EVPN
BGP table version is 4196, Local Router ID is 10.103.0.9
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: 10.103.0.9:5 (L3VNI 4000502) | | | | | |
| *>i[5]:[0]:[0]:[24]:[192.168.100.0]/224 | 10.100.100.2 | | 100 | 0 300 100 | i |
| *>i[5]:[0]:[0]:[32]:[10.2.3.4]/224 | 10.100.100.2 | | 100 | 0 300 100 65111 | i |
| *>i[5]:[0]:[0]:[32]:[10.100.100.1]/224 | 10.100.100.2 | | 100 | 0 300 100 | i |
| *>i[5]:[0]:[0]:[32]:[10.100.100.2]/224 | 10.100.100.2 | | 100 | 0 300 100 | i |

S2-Leaf4#

S2-Leaf4#

show bgp l2vpn evpn vrf vrf_2

BGP routing table information for VRF default, address family L2VPN EVPN
BGP table version is 4381, Local Router ID is 10.102.0.10
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: 10.102.0.10:5 (L3VNI 4000502)
```

```
*>i[5]:[0]:[0]:[24]:[192.168.100.0]/224
    10.100.100.2 100 0 300 100 i
```

```
*>i[5]:[0]:[0]:[32]:[10.2.3.4]/224
    10.100.100.2 100 0 300 100 65111 i
```

```
*>i[5]:[0]:[0]:[32]:[10.100.100.1]/224
    10.100.100.2 100 0 300 100 i
```

```
*>i[5]:[0]:[0]:[32]:[10.100.100.2]/224
    10.100.100.2 100 0 300 100 i
```

```
S2-Leaf4#
```

```
S2-Leaf4#
```

```
<#root>
```

```
S2-Spine1#
```

```
show bgp l2vpn evpn
```

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

```
BGP table version is 1235, Local Router ID is 10.103.0.3
```

```
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: 200:4000502 | | | | | |
| * i[5]:[0]:[0]:[24]:[192.168.100.0]/224 | | | | | |
| | 10.100.100.2 | | 100 | 0 300 100 | |
| *>i | 10.100.100.2 | | 100 | 0 300 100 | i |
| * i[5]:[0]:[0]:[32]:[10.2.3.4]/224 | | | | | |
| | 10.100.100.2 | | 100 | 0 300 100 65111 | i |
| *>i | 10.100.100.2 | | 100 | 0 300 100 65111 | i |
| * i[5]:[0]:[0]:[32]:[10.100.100.1]/224 | | | | | |
| | 10.100.100.2 | | 100 | 0 300 100 | i |
| *>i | 10.100.100.2 | | 100 | 0 300 100 | i |
| * i[5]:[0]:[0]:[32]:[10.100.100.2]/224 | | | | | |
| | 10.100.100.2 | | 100 | 0 300 100 | i |
| *>i | 10.100.100.2 | | 100 | 0 300 100 | i |

```
<#root>
```

```
S2-BG1#
```

```
show ip int brie
```

```
IP Interface Status for VRF "default"(1)
```

| Interface | IP Address | Interface Status |
|-----------|----------------|------------------------------|
| Lo0 | 10.31.1.3 | protocol-up/link-up/admin-up |
| Lo1 | 10.135.135.135 | protocol-up/link-up/admin-up |
| Lo100 | 10.100.100.2 | protocol-up/link-up/admin-up |

```
Eth1/1          192.168.17.12  protocol-up/link-up/admin-up
Eth1/3          10.150.152.1  protocol-up/link-up/admin-up
S2-BG1#
```

```
S2-BG1#
```

```
show ip route 10.2.3.4 vrf vrf_2
```

```
IP Route Table for VRF "vrf_2"
```

```
'*' denotes best ucast next-hop
```

```
'**' denotes best mcast next-hop
```

```
'[x/y]' denotes [preference/metric]
```

```
'%<string>' in via output denotes VRF <string>
```

```
10.2.3.4/32, ubest/mbest: 1/0
```

```
*via 10.100.100.1%default, [20/0], 04:09:46, bgp-200, external, tag 300, segid: 4000502 tunnelid: 0xa646
```

```
S2-BG1#
```

```
S2-BG1#
```

```
show bgp l2vpn evpn
```

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

```
BGP table version is 6206, Local Router ID is 10.31.1.3
```

```
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: 100:4000502 | | | | | |
| *>e[5]:[0]:[0]:[24]:[192.168.100.0]/224 | 10.100.100.1 | | | 0 300 100 | i |
| *>e[5]:[0]:[0]:[32]:[10.2.3.4]/224 | 10.100.100.1 | | | 0 300 100 65111 | i |
| *>e[5]:[0]:[0]:[32]:[10.100.100.1]/224 | 10.100.100.1 | | | 0 300 100 | i |
| *>e[5]:[0]:[0]:[32]:[10.100.100.2]/224 | 10.100.100.1 | | | 0 300 100 | i |

```
<#root>
```

```
S2-BG2#
```

```
show ip int brief
```

```
IP Interface Status for VRF "default"(1)
```

| Interface | IP Address | Interface Status |
|-----------|----------------|------------------------------|
| Lo0 | 10.31.1.4 | protocol-up/link-up/admin-up |
| Lo1 | 10.136.136.136 | protocol-up/link-up/admin-up |
| Lo100 | 10.100.100.2 | protocol-up/link-up/admin-up |

```
Eth1/1          192.168.18.12  protocol-up/link-up/admin-up
Eth1/3          10.150.153.1   protocol-up/link-up/admin-up
S2-BG2#
S2-BG2#
S2-BG2#
```

```
show ip route 10.2.3.4 vrf vrf_2
```

```
IP Route Table for VRF "vrf_2"
'*' denotes best ucast next-hop
 '**' denotes best mcast next-hop
 '[x/y]' denotes [preference/metric]
 '%<string>' in via output denotes VRF <string>
```

```
10.2.3.4/32, ubest/mbest: 1/0
  *via 10.100.100.1%default, [20/0], 04:15:13, bgp-200, external, tag 300, segid: 4000502 tunnelid: 0
```

```
S2-BG2#
S2-BG2#
```

```
show bgp l2vpn evpn
```

```
BGP routing table information for VRF default, address family L2VPN EVPN
BGP table version is 5455, Local Router ID is 10.31.1.4
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: 100:4000502 | | | | | |
| *>e[5]:[0]:[0]:[24]:[192.168.100.0]/224 | 10.100.100.1 | | | 0 300 100 | i |
| *>e[5]:[0]:[0]:[32]:[10.2.3.4]/224 | 10.100.100.1 | | | 0 300 100 65111 | i |
| *>e[5]:[0]:[0]:[32]:[10.100.100.1]/224 | 10.100.100.1 | | | 0 300 100 | i |
| *>e[5]:[0]:[0]:[32]:[10.100.100.2]/224 | 10.100.100.1 | | | 0 300 100 | i |

```
<#root>
```

```
Router_Server#
```

```
show ip int brief
```

```
IP Interface Status for VRF "default"(1)
Interface      IP Address      Interface Status
Lo0            10.32.1.1       protocol-up/link-up/admin-up
Eth2/1         10.150.150.2    protocol-up/link-up/admin-up
Eth2/2         10.150.151.2    protocol-up/link-up/admin-up
Eth2/4         10.150.152.2    protocol-up/link-up/admin-up
Eth2/5         10.150.153.2    protocol-up/link-up/admin-up
Router_Server#
Router_Server#
```

```
show ip route 10.100.100.1
```

```
IP Route Table for VRF "default"
```

```
'*' denotes best ucast next-hop  
'**' denotes best mcast next-hop  
'[x/y]' denotes [preference/metric]  
'%<string>' in via output denotes VRF <string>
```

```
10.100.100.1/32, ubest/mbest: 2/0
```

```
*via 10.150.150.1, [20/0], 4d22h, bgp-300, external, tag 100  
*via 10.150.151.1, [20/0], 4d22h, bgp-300, external, tag 100
```

```
Router_Server#  
Router_Server#  
Router_Server#
```

```
show ip route 10.100.100.2
```

```
IP Route Table for VRF "default"
```

```
'*' denotes best ucast next-hop  
'**' denotes best mcast next-hop  
'[x/y]' denotes [preference/metric]  
'%<string>' in via output denotes VRF <string>
```

```
10.100.100.2/32, ubest/mbest: 2/0
```

```
*via 10.150.152.1, [20/0], 3w5d, bgp-300, external, tag 200  
*via 10.150.153.1, [20/0], 3w5d, bgp-300, external, tag 200
```

```
Router_Server#  
Router_Server#
```

```
show bgp l2vpn evpn
```

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

```
BGP table version is 4574, Local Router ID is 10.32.1.1
```

```
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: 200:4000100 | | | | | |
| * e[2]:[0]:[0]:[48]:[6c8b.d3fe.ecb5]:[32]:[192.168.100.103]/272 | 10.100.100.2 | 2000 | | 0 200 | i |
| *>e | 10.100.100.2 | 2000 | | 0 200 | i |
| Route Distinguisher: 100:4000502 | | | | | |
| *>e[5]:[0]:[0]:[24]:[192.168.100.0]/224 | 10.100.100.1 | 2000 | | 0 100 | i |
| * e | 10.100.100.1 | 2000 | | 0 100 | i |
| * e[5]:[0]:[0]:[32]:[10.2.3.4]/224 | 10.100.100.1 | 2000 | | 0 100 65111 | i |
| *>e | 10.100.100.1 | 2000 | | 0 100 65111 | i |
| *>e[5]:[0]:[0]:[32]:[10.100.100.1]/224 | 10.100.100.1 | 2000 | | 0 100 | i |
| * e | 10.100.100.1 | 2000 | | 0 100 | i |
| *>e[5]:[0]:[0]:[32]:[10.100.100.2]/224 | | | | | |


```
>                10.100.100.1          2000                0 100 i
* e              10.100.100.1          2000                0 100 i
```

<#root>

S1_B2#

S1_B2#

show ip int brie

```
IP Interface Status for VRF "default"(1)
Interface          IP Address          Interface Status
Lo0                10.31.1.2          protocol-up/link-up/admin-up
Lo1                10.134.134.134     protocol-up/link-up/admin-up
Lo100              10.100.100.1       protocol-up/link-up/admin-up
Eth1/1             192.168.16.12      protocol-up/link-up/admin-up
Eth1/3             10.150.151.1       protocol-up/link-up/admin-up
S1_B2#
S1_B2#
```

sho ip route 192.168.100.103 vrf vrf_2

```
IP Route Table for VRF "vrf_2"
'*' denotes best ucast next-hop
 '**' denotes best mcast next-hop
 '[x/y]' denotes [preference/metric]
 '%<string>' in via output denotes VRF <string>
```

```
192.168.100.103/32, ubest/mbest: 1/0
  *via 10.100.100.2%default, [20/0], 4d23h, bgp-100, external, tag 300, segid: 4000502 tunnelid: 0xa6
```

S1_B2#

S1_B2#

show ip route 10.2.3.4 vrf vrf_2

```
IP Route Table for VRF "vrf_2"
'*' denotes best ucast next-hop
 '**' denotes best mcast next-hop
 '[x/y]' denotes [preference/metric]
 '%<string>' in via output denotes VRF <string>
```

```
10.2.3.4/32, ubest/mbest: 1/0
  *via 10.102.1.10%default, [200/0], 05:04:19, bgp-100, internal, tag 65111, segid: 4000502 tunnelid:
```

S1_B2#

S1_B2#

S1_B2#

show bgp l2vpn evpn

```
BGP routing table information for VRF default, address family L2VPN EVPN
BGP table version is 5449, Local Router ID is 10.31.1.2
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: 200:4000100 | | | | | |
| *>e[2]:[0]:[0]:[48]:[6c8b.d3fe.df3b]:[32]:[192.168.100.104]/272 | 10.100.100.2 | | | 0 300 200 | i |
| *>e[2]:[0]:[0]:[48]:[6c8b.d3fe.ecb5]:[32]:[192.168.100.103]/272 | 10.100.100.2 | | | 0 300 200 | i |

<#root>

| | | | | | |
|---|--------------|--|--|-----------|---|
| Route Distinguisher: 200:4000200 | | | | | |
| *>e[2]:[0]:[0]:[48]:[6c8b.d3fe.df3b]:[32]:[192.168.100.104]/272 | 10.100.100.2 | | | 0 300 200 | i |
| *>e[2]:[0]:[0]:[48]:[6c8b.d3fe.ecb5]:[32]:[192.168.100.103]/272 | 10.100.100.2 | | | 0 300 200 | i |

| | | | | | |
|--|----------------|-----|--|---------|---|
| Route Distinguisher: 10.102.0.9:5 | | | | | |
| *>i[2]:[0]:[0]:[48]:[cc7f.76fa.118f]:[0]:[0.0.0.0]/216 | 10.202.202.202 | 100 | | 0 | i |
| *>i[5]:[0]:[0]:[24]:[192.168.100.0]/224 | 10.102.1.10 | 100 | | 0 | i |
| *>i[5]:[0]:[0]:[32]:[10.2.3.4]/224 | 10.102.1.10 | 100 | | 0 65111 | i |
| *>i[5]:[0]:[0]:[32]:[10.100.100.2]/224 | 10.102.1.10 | 100 | | 0 | i |

| | | | | | |
|--|----------------|-----|--|---------|---|
| Route Distinguisher: 10.102.0.10:5 | | | | | |
| *>i[2]:[0]:[0]:[48]:[cc7f.76c6.a673]:[0]:[0.0.0.0]/216 | 10.202.202.202 | 100 | | 0 | i |
| *>i[5]:[0]:[0]:[24]:[192.168.100.0]/224 | 10.102.1.6 | 100 | | 0 | i |
| *>i[5]:[0]:[0]:[32]:[10.2.3.4]/224 | 10.102.1.6 | 100 | | 0 65111 | i |
| *>i[5]:[0]:[0]:[32]:[10.100.100.1]/224 | 10.102.1.6 | 100 | | 0 | i |

| | | | | | |
|--|----------------|-----|--|---------|---|
| Route Distinguisher: 10.31.1.2:5 (L3VNI 4000502) | | | | | |
| *>l[5]:[0]:[0]:[24]:[192.168.100.0]/224 | 10.134.134.134 | 100 | | 0 | i |
| *>l[5]:[0]:[0]:[32]:[10.2.3.4]/224 | 10.134.134.134 | 100 | | 0 65111 | i |
| *>l[5]:[0]:[0]:[32]:[10.100.100.1]/224 | 10.134.134.134 | 100 | | 0 | i |
| *>l[5]:[0]:[0]:[32]:[10.100.100.2]/224 | 10.134.134.134 | 100 | | 0 | i |

S1_B2#

<#root>

S1-Bg1#

show ip int brie

IP Interface Status for VRF "default"(1)

| Interface | IP Address | Interface Status |
|-----------|----------------|------------------------------|
| Lo0 | 10.31.1.1 | protocol-up/link-up/admin-up |
| Lo1 | 10.133.133.133 | protocol-up/link-up/admin-up |
| Lo100 | 10.100.100.1 | protocol-up/link-up/admin-up |
| Eth1/1 | 192.168.15.12 | protocol-up/link-up/admin-up |
| Eth1/3 | 10.150.150.1 | protocol-up/link-up/admin-up |

S1-Bg1#

show ip route 10.100.100.2 vrf vrf_2

IP Route Table for VRF "vrf_2"

'*' denotes best ucast next-hop
'**' denotes best mcast next-hop
'[x/y]' denotes [preference/metric]
'%<string>' in via output denotes VRF <string>

10.100.100.2/32, ubest/mbest: 1/0

*via 10.102.1.10%default, [200/0], 4d23h, bgp-100, internal, tag 100, segid: 4000502 tunnelid: 0xa66

S1-Bg1#

S1-Bg1#

show ip route 192.168.100.103 vrf vrf_2

IP Route Table for VRF "vrf_2"

'*' denotes best ucast next-hop
'**' denotes best mcast next-hop
'[x/y]' denotes [preference/metric]
'%<string>' in via output denotes VRF <string>

192.168.100.103/32, ubest/mbest: 1/0

*via 10.100.100.2%default, [20/0], 4d23h, bgp-100, external, tag 300, segid: 4000502 tunnelid: 0xa66

S1-Bg1#

S1-Bg1#

show ip route 10.2.3.4 vrf vrf_2

IP Route Table for VRF "vrf_2"

'*' denotes best ucast next-hop
'**' denotes best mcast next-hop
'[x/y]' denotes [preference/metric]
'%<string>' in via output denotes VRF <string>

10.2.3.4/32, ubest/mbest: 1/0

*via 10.102.1.10%default, [200/0], 05:21:41, bgp-100, internal, tag 65111, segid: 4000502 tunnelid:

S1-Bg1#
S1-Bg1#

show bgp l2vpn evpn

BGP routing table information for VRF default, address family L2VPN EVPN
BGP table version is 6654, Local Router ID is 10.31.1.1
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: 200:4000100 | | | | | |
| *>e[2]:[0]:[0]:[48]:[6c8b.d3fe.df3b]:[32]:[192.168.100.104]/272 | 10.100.100.2 | | | 0 300 200 | i |
| *>e[2]:[0]:[0]:[48]:[6c8b.d3fe.ecb5]:[32]:[192.168.100.103]/272 | 10.100.100.2 | | | 0 300 200 | i |
| Route Distinguisher: 200:4000200 | | | | | |
| *>e[2]:[0]:[0]:[48]:[6c8b.d3fe.df3b]:[32]:[192.168.200.104]/272 | 10.100.100.2 | | | 0 300 200 | i |
| *>e[2]:[0]:[0]:[48]:[6c8b.d3fe.ecb5]:[32]:[192.168.200.103]/272 | 10.100.100.2 | | | 0 300 200 | i |
| Route Distinguisher: 10.31.1.1:32867 (L2VNI 4000100) | | | | | |
| *>e[2]:[0]:[0]:[48]:[6c8b.d3fe.ecb5]:[32]:[192.168.100.103]/272 | 10.100.100.2 | | | 0 300 200 | i |
| *>i[2]:[0]:[0]:[48]:[6c8b.d3fe.ff09]:[32]:[192.168.100.102]/272 | 10.202.202.202 | | 100 | 0 | i |
| * i | 10.202.202.202 | | 100 | 0 | i |
| *>i[2]:[0]:[0]:[48]:[6c8b.d3ff.00a7]:[32]:[192.168.100.100]/272 | 10.201.201.201 | | 100 | 0 | i |
| * i | 10.201.201.201 | | 100 | 0 | i |
| *>e[2]:[0]:[0]:[48]:[6c8b.d3fe.ecb5]:[32]:[192.168.200.103]/272 | 10.100.100.2 | | | 0 300 200 | i |
| *>i[2]:[0]:[0]:[48]:[6c8b.d3fe.ff09]:[32]:[192.168.200.102]/272 | 10.202.202.202 | | 100 | 0 | i |
| * i | 10.202.202.202 | | 100 | 0 | i |
| *>i[2]:[0]:[0]:[48]:[6c8b.d3ff.00a7]:[32]:[192.168.200.100]/272 | 10.201.201.201 | | 100 | 0 | i |
| * i | 10.201.201.201 | | 100 | 0 | i |
| Route Distinguisher: 10.102.0.10:5 | | | | | |
| *>i[2]:[0]:[0]:[48]:[cc7f.76c6.a673]:[0]:[0.0.0.0]/216 | 10.202.202.202 | | 100 | 0 | i |
| *>i[5]:[0]:[0]:[24]:[192.168.100.0]/224 | 10.102.1.6 | | 100 | 0 | i |
| *>i[5]:[0]:[0]:[32]:[10.2.3.4]/224 | 10.102.1.6 | | 100 | 0 65111 | i |
| *>i[5]:[0]:[0]:[32]:[10.100.100.1]/224 | 10.102.1.6 | | 100 | 0 | i |
| Route Distinguisher: 10.31.1.1:5 (L3VNI 4000502) | | | | | |
| *>l[5]:[0]:[0]:[24]:[192.168.100.0]/224 | 10.133.133.133 | | 100 | 0 | i |
| *>l[5]:[0]:[0]:[32]:[10.2.3.4]/224 | 10.133.133.133 | | 100 | 0 65111 | i |

```

*>i[5]:[0]:[0]:[32]:[10.100.100.1]/224
    10.133.133.133          100          0 i
*>i[5]:[0]:[0]:[32]:[10.100.100.2]/224
    10.133.133.133          100          0 i
S1-Bg1#

```

<#root>

S1-Leaf1#

show ip int brief

```

IP Interface Status for VRF "default"(1)
Interface      IP Address      Interface Status
Lo0            10.102.0.5     protocol-up/link-up/admin-up
Lo1            10.102.1.8     protocol-up/link-up/admin-up
Eth1/2        192.168.17.12  protocol-up/link-up/admin-up
S1-Leaf1#

```

S1-Leaf1#

show bgp l2vpn evpn vrf vrf_2

```

BGP routing table information for VRF default, address family L2VPN EVPN
BGP table version is 918, Local Router ID is 10.102.0.5
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: 10.102.0.5:5 (L3VNI 4000502) | | | | | |
| *>i[2]:[0]:[0]:[48]:[6c8b.d3fe.ecb5]:[32]:[192.168.100.103]/272 | 10.100.100.1 | 100 | | 0 300 200 | i |
| *>i[2]:[0]:[0]:[48]:[6c8b.d3fe.ecb5]:[32]:[192.168.200.103]/272 | 10.100.100.1 | 100 | | 0 300 200 | i |
| *>i[5]:[0]:[0]:[24]:[192.168.100.0]/224 | 10.102.1.10 | 100 | | 0 | i |
| * i | 10.102.1.6 | 100 | | 0 | i |
| *>i[5]:[0]:[0]:[32]:[10.2.3.4]/224 | 10.102.1.10 | 100 | | 0 65111 | i |
| * i | 10.102.1.6 | 100 | | 0 65111 | i |
| *>i[5]:[0]:[0]:[32]:[10.100.100.1]/224 | 10.102.1.6 | 100 | | 0 | i |
| *>i[5]:[0]:[0]:[32]:[10.100.100.2]/224 | 10.102.1.10 | 100 | | 0 | i |

S1-Leaf1#

S1-Leaf2#

show ip int brie

```

IP Interface Status for VRF "default"(1)
Interface      IP Address      Interface Status
Lo0            10.102.0.8     protocol-up/link-up/admin-up
Lo1            10.102.1.9     protocol-up/link-up/admin-up
Eth1/2        192.168.18.12  protocol-up/link-up/admin-up

```

S1-Leaf2#
S1-Leaf2#
S1-Leaf2#

show bgp l2vpn evpn vrf vrf_2

BGP routing table information for VRF default, address family L2VPN EVPN
BGP table version is 680, Local Router ID is 10.102.0.8
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: 10.102.0.8:5 (L3VNI 4000502) | | | | | |
| *>i[2]:[0]:[0]:[48]:[6c8b.d3fe.ecb5]:[32]:[192.168.100.103]/272 | 10.100.100.1 | | 100 | 0 300 200 | i |
| *>i[2]:[0]:[0]:[48]:[6c8b.d3fe.ecb5]:[32]:[192.168.200.103]/272 | 10.100.100.1 | | 100 | 0 300 200 | i |
| *>i[5]:[0]:[0]:[24]:[192.168.100.0]/224 | 10.102.1.10 | 100 | 0 | | i |
| * i | 10.102.1.6 | | 100 | 0 | i |
| * i[5]:[0]:[0]:[32]:[10.2.3.4]/224 | | | | | |
| | 10.102.1.6 | | 100 | 0 65111 | i |
| *>i | 10.102.1.10 | | 100 | 0 65111 | i |
| *>i[5]:[0]:[0]:[32]:[10.100.100.1]/224 | 10.102.1.6 | | 100 | 0 | i |
| *>i[5]:[0]:[0]:[32]:[10.100.100.2]/224 | 10.102.1.10 | | 100 | 0 | i |

S1-Leaf3#
S1-Leaf3#

show ip int brie

IP Interface Status for VRF "default"(1)

| Interface | IP Address | Interface Status |
|-----------|---------------|------------------------------|
| Lo0 | 10.102.0.9 | protocol-up/link-up/admin-up |
| Lo1 | 10.102.1.10 | protocol-up/link-up/admin-up |
| Eth1/2 | 192.168.19.12 | protocol-up/link-up/admin-up |

S1-Leaf3#
S1-Leaf3#
S1-Leaf3#
S1-Leaf3#

show bgp l2vpn evpn vrf vrf_2

BGP routing table information for VRF default, address family L2VPN EVPN
BGP table version is 5431, Local Router ID is 10.102.0.9
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: 10.102.0.9:5 (L3VNI 4000502) | | | | | |
| *>i[2]:[0]:[0]:[48]:[6c8b.d3fe.ecb5]:[32]:[192.168.100.103]/272 | | | | | |

```

10.100.100.1 100 0 300 200 i
* i[5]:[0]:[0]:[24]:[192.168.100.0]/224
10.102.1.6 100 0 i
*>1 10.102.1.10 100 32768 i
* i[5]:[0]:[0]:[32]:[10.2.3.4]/224

10.102.1.6 100 0 65111 i

*>1 10.102.1.10 0 65111 i

*>i[5]:[0]:[0]:[32]:[10.100.100.1]/224
10.102.1.6 100 0 i
*>1[5]:[0]:[0]:[32]:[10.100.100.2]/224
10.102.1.10 100 32768 i

```

S1-Leaf3#

S1_Leaf4#

S1_Leaf4#

show ip int brief

IP Interface Status for VRF "default"(1)

| Interface | IP Address | Interface Status |
|-----------|---------------|------------------------------|
| Lo0 | 10.102.0.10 | protocol-up/link-up/admin-up |
| Lo1 | 10.102.1.6 | protocol-up/link-up/admin-up |
| Eth1/2 | 192.168.20.12 | protocol-up/link-up/admin-up |

S1_Leaf4#

S1_Leaf4#

S1_Leaf4#

show bgp l2vpn evpn vrf vrf_2

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

BGP table version is 5118, Local Router ID is 10.102.0.10

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: 10.102.0.10:5 (L3VNI 4000502) | | | | | |
| *>i[2]:[0]:[0]:[48]:[6c8b.d3fe.ecb5]:[32]:[192.168.100.103]/272 | 10.100.100.1 | 100 | | 0 | 300 200 i |
| *>i[2]:[0]:[0]:[48]:[6c8b.d3fe.ecb5]:[32]:[192.168.200.103]/272 | 10.100.100.1 | 100 | | 0 | 300 200 i |
| *>i[2]:[0]:[0]:[48]:[6c8b.d3ff.00a7]:[32]:[192.168.100.100]/272 | 10.201.201.201 | 100 | | 0 | i |
| * i | 10.201.201.201 | 100 | | 0 | i |
| * i[5]:[0]:[0]:[24]:[192.168.100.0]/224 | 10.102.1.10 | 100 | | 0 | i |
| *>1 | 10.102.1.6 | 100 | | 32768 | i |
| *>1[5]:[0]:[0]:[32]:[10.2.3.4]/224 | | | | | |
| | 10.102.1.6 | | | 0 | 65111 i |

```

* i                10.102.1.10                100                0 65111 i

*>l[5]:[0]:[0]:[32]:[10.100.100.1]/224
                  10.102.1.6                100                32768 i
*>i[5]:[0]:[0]:[32]:[10.100.100.2]/224
                  10.102.1.10               100                0 i
S1_Leaf4#

```

检验数据平面

数据计划验证在多个设备上测试，以便了解不同的数据包捕获方法和变体。

从Host-3上的源IP地址192.168.100.103对外部路由器环回100“10.2.3.4”执行ping操作。

```
<#root>
```

```
HOST_3#
HOST_3#
```

```
ping 10.2.3.4 source 192.168.100.103
```

```

PING 10.2.3.4 (10.2.3.4) from 192.168.100.103: 56 data bytes
64 bytes from 10.2.3.4: icmp_seq=0 ttl=250 time=1.153 ms
64 bytes from 10.2.3.4: icmp_seq=1 ttl=250 time=0.569 ms
64 bytes from 10.2.3.4: icmp_seq=2 ttl=250 time=0.562 ms
64 bytes from 10.2.3.4: icmp_seq=3 ttl=250 time=0.525 ms
64 bytes from 10.2.3.4: icmp_seq=4 ttl=250 time=0.527 ms
--- 10.2.3.4 ping statistics ---
5 packets transmitted, 5 packets received, 0.00% packet loss
round-trip min/avg/max = 0.525/0.667/1.153 ms
HOST_3#

```

Ethalyzer在站点2枝叶1和枝叶2上使用，以确认哪个枝叶接收/转发外部路由器环回10.2.3.4可达性的流量。

```
<#root>
```

```
S2-Leaf1(config-monitor)#
```

```
sho clock
```

```
Warning: No NTP peer/server configured. Time may be out of sync.
```

```
07:11:37.455 UTC Tue Feb 21 2023
```

```
Time source is NTP
```

```
S2-Leaf1(config-monitor)#
```

```
S2-Leaf1(config-monitor)#
```

```
show run section monitor
```

```
show running-config | section monitor
icam monitor scale
```



```

monitor session 1
  source interface port-channel100 both
  destination interface sup-eth0
  no shut
S2-Leaf1(config-monitor)#
S2-Leaf2(config-monitor)#
S2-Leaf2(config-monitor)#

ethanalyzer local interface inband display-filter "ip.addr==10.2.3.4 && ip.addr==192.168.100.103 && icmp"

Capturing on 'ps-inb'
1385 2023-02-21 07:10:46.424195144 192.168.100.103 → 10.2.3.4      ICMP 102 Echo (ping) request  id=0xdd1f, s
1386 2023-02-21 07:10:46.424818423      10.2.3.4 → 192.168.100.103 ICMP 98 Echo (ping) reply    id=0xdd1f, s
1387 2023-02-21 07:10:46.425263621 192.168.100.103 → 10.2.3.4      ICMP 102 Echo (ping) request  id=0xdd1f, s
1388 2023-02-21 07:10:46.425486046      10.2.3.4 → 192.168.100.103 ICMP 98 Echo (ping) reply    id=0xdd1f, s
1389 2023-02-21 07:10:46.425856150 192.168.100.103 → 10.2.3.4      ICMP 102 Echo (ping) request  id=0xdd1f, s
1390 2023-02-21 07:10:46.426095692      10.2.3.4 → 192.168.100.103 ICMP 98 Echo (ping) reply    id=0xdd1f, s
1391 2023-02-21 07:10:46.426438174 192.168.100.103 → 10.2.3.4      ICMP 102 Echo (ping) request  id=0xdd1f, s
1392 2023-02-21 07:10:46.426642605      10.2.3.4 → 192.168.100.103 ICMP 98 Echo (ping) reply    id=0xdd1f, s
1393 2023-02-21 07:10:46.427004108 192.168.100.103 → 10.2.3.4      ICMP 102 Echo (ping) request  id=0xdd1f, s
1394 2023-02-21 07:10:46.427210984      10.2.3.4 → 192.168.100.103 ICMP 98 Echo (ping) reply    id=0xdd1f, s
10
S2-Leaf2(config-monitor)#
S2-Leaf2(config-monitor)#

sho clock

Warning: No NTP peer/server configured. Time may be out of sync.
07:12:31.069 UTC Tue Feb 21 2023
Time source is NTP
S2-Leaf2(config-monitor)#

```

CLI输出确认Site 2 Leaf-2接收并转发外部路由器10.2.3.4的Internet控制消息协议(ICMP)请求。

下一个CLI示例确认站点1验证哪些枝叶将数据包转发到目标10.2.3.4。

<#root>

```

S1-Leaf3(config-monitor)#
S1-Leaf3(config-monitor)#

ethanalyzer local interface inband display-filter "ip.addr==10.2.3.4 && ip.addr==192.168.100.103 && icmp"

Capturing on 'ps-inb'
253 2023-02-21 07:10:50.379741403 192.168.100.103 → 10.2.3.4      ICMP 98 Echo (ping) request  id=0xdd1f, s
254 2023-02-21 07:10:50.380357311      10.2.3.4 → 192.168.100.103 ICMP 102 Echo (ping) reply    id=0xdd1f, s
255 2023-02-21 07:10:50.380810012 192.168.100.103 → 10.2.3.4      ICMP 98 Echo (ping) request  id=0xdd1f, s
256 2023-02-21 07:10:50.381025676      10.2.3.4 → 192.168.100.103 ICMP 102 Echo (ping) reply    id=0xdd1f, s
257 2023-02-21 07:10:50.381401968 192.168.100.103 → 10.2.3.4      ICMP 98 Echo (ping) request  id=0xdd1f, s
258 2023-02-21 07:10:50.381631838      10.2.3.4 → 192.168.100.103 ICMP 102 Echo (ping) reply    id=0xdd1f, s
259 2023-02-21 07:10:50.381984272 192.168.100.103 → 10.2.3.4      ICMP 98 Echo (ping) request  id=0xdd1f, s
260 2023-02-21 07:10:50.382176820      10.2.3.4 → 192.168.100.103 ICMP 102 Echo (ping) reply    id=0xdd1f, s
261 2023-02-21 07:10:50.382549820 192.168.100.103 → 10.2.3.4      ICMP 98 Echo (ping) request  id=0xdd1f, s
262 2023-02-21 07:10:50.382746640      10.2.3.4 → 192.168.100.103 ICMP 102 Echo (ping) reply    id=0xdd1f, s

S1-Leaf3(config-monitor)#

```

```
sho clock
```

```
Warning: No NTP peer/server configured. Time may be out of sync.
```

```
07:11:22.514 UTC Tue Feb 21 2023
```

```
Time source is NTP
```

```
S1-Leaf3(config-monitor)#
```

```
S1-Leaf3(config-monitor)#
```

```
show run section monitor
```

```
show running-config | section monitor
```

```
monitor session 1
```

```
source interface port-channel2 both
```

```
destination interface sup-eth0
```

```
no shut
```

```
S1-Leaf3(config-monitor)#
```

```
S1-Leaf3(config-monitor)#
```

```
show moni sess 1
```

```
session 1
```

```
-----  
type           : local  
state          : up  
acl-name       : acl-name not specified  
source intf    :  
  rx           : Po2  
  tx           : Po2  
  both         : Po2  
source VLANs   :  
  rx           :  
  tx           :  
  both        :  
filter VLANs   : filter not specified  
source fwd drops :  
destination ports : sup-eth0  
source VSANs   :  
  rx           :
```

```
S1-Leaf3(config-monitor)#
```

```
S1-Leaf4(config-monitor)#
```

```
ethalyzer local interface inband display-filter "ip.addr==192.168.100.103" limit-captured-frames 0
```

```
Capturing on 'ps-inb'
```

```
S1-Leaf4(config-monitor)#
```

```
S1-Leaf4(config-monitor)#
```

```
sho clock
```

```
Warning: No NTP peer/server configured. Time may be out of sync.
```

```
07:11:15.187 UTC Tue Feb 21 2023
```

```
Time source is NTP
```

```
S1-Leaf4(config-monitor)#
```

客户回应说他们面临着从Host-3到外部路由器的连接问题。客户希望确认VXLAN交换矩阵中的所有内容都正常，并需要确认我们的枝叶将流量转发到外部路由器。解决此问题的步骤如下：

1. 向外部路由器发起ping，确认IP地址10.2.3.4是否可达。
2. 在S1-Leaf3和S1-Leaf4上采用嵌入式逻辑分析器模块(ELAM)捕获，以查看它是否被触发（基于拓扑和流量）。
3. 使用ELAM捕获时，确认数据包已从接口转发出去，并指向外部路由器。
4. 站点2 — 通过ethalyzer，我们可以看到ICMP请求和应答。如果没有应答，则问题出在远程端。
5. 如果从Host-4可以访问10.2.3.4，并且Host-3存在问题，则可能是特定于主机的问题。检查访问控制列表(ACL)、循环冗余校验(CRC)错误和散列链路。

```
<#root>
```

```
HOST_3#
```

```
ping 10.2.3.4 source 192.168.100.103
```

```
PING 10.2.3.4 (10.2.3.4) from 192.168.100.103: 56 data bytes
Request 0 timed out
Request 1 timed out
Request 2 timed out
Request 3 timed out
Request 4 timed out
--- 10.2.3.4 ping statistics ---
5 packets transmitted, 0 packets received, 100.00% packet loss
HOST_3#
```

```
Host4#
```

```
ping 10.2.3.4 source 192.168.100.104
```

```
PING 10.2.3.4 (10.2.3.4) from 192.168.100.104: 56 data bytes
64 bytes from 10.2.3.4: icmp_seq=0 ttl=250 time=1.266 ms
64 bytes from 10.2.3.4: icmp_seq=1 ttl=250 time=0.62 m
64 bytes from 10.2.3.4: icmp_seq=2 ttl=250 time=0.603 ms
64 bytes from 10.2.3.4: icmp_seq=3 ttl=250 time=0.474 ms
64 bytes from 10.2.3.4: icmp_seq=4 ttl=250 time=0.457 ms
--- 10.2.3.4 ping statistics ---
5 packets transmitted, 5 packets received, 0.00% packet loss
round-trip min/avg/max = 0.457/0.684/1.266 ms
```

检验数据平面

获取ELAM捕获以验证端口ASIC、切片和SrcId

```
<#root>
```

```
show hardware internal tah interface
```



```
Packet Type: IPv4
Dst MAC address: CC:7F:76:FA:11:8F
Src MAC address: 4C:E1:75:F7:38:C7
Dst IPv4 address: 10.2.3.4
Src IPv4 address: 192.168.100.103
Ver      = 4, DSCP      = 0, Don't Fragment = 0
Proto    = 1, TTL      = 252, More Fragments = 0
Hdr len  = 20, Pkt len  = 84, Checksum      = 0xb712
L4 Protocol : 1
ICMP type  : 8
ICMP code  : 0
Drop Info:
```

```
-----
```

```
LUA:
LUB:
LUC:
LUD:
Final Drops:
vntag:
vntag_valid : 0
vntag_vir   : 0
vntag_svif  : 0
```

```
S1-Leaf3(TAH-elam-inse17)#
```

```
S1_Leaf4#
```

```
show system internal ethpm info interface ethernet 1/2 | grep slice
```

```
IF_STATIC_INFO: port_name=Ethernet1/2,if_index:0x1a000200,ltl=6140,slot=0, nxos_port=4,
dmod=1,dpid=76,unit=0,queue=65535,xbar_unitbmp=0x0,ns_pid=255,slice_num=1,port_on_slice=4,src_id=8
```

```
S1_Leaf4(TAH-elam)#
```

```
debug platform internal tah elam asic 0
```

```
S1_Leaf4(TAH-elam)#
```

```
trigger init asic 0 slice 1 in-select 7 out-select 0 use-src-id 8
```

```
Slot 1: param values: asic 0, slice 1, lu-a2d 1, in-select 7, out-select 0, src_id 8
S1_Leaf4(TAH-elam-inse17)#
```

```
set inner ipv4 src_ip 192.168.100.103
```

```
S1_Leaf4(TAH-elam-inse17)#
```

```
start
```

```
S1_Leaf4(TAH-elam-inse17)#
```

```
report
```

```
ELAM not triggered yet on slot - 1, asic - 0, slice - 1
S1_Leaf4(TAH-elam-inse17)#
```

ELAM输出的结论是，枝叶将流量转发到外部路由器，但是没有来自外部路由器的响应。因此，请向外部路由器团队检查ICMP响应。

关于此翻译

思科采用人工翻译与机器翻译相结合的方式将此文档翻译成不同语言，希望全球的用户都能通过各自的语言得到支持性的内容。

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