

# Configurar o recurso VXLAN em dispositivos Cisco IOS XE

## Contents

[Introduction](#)

[Prerequisites](#)

[Requirements](#)

[Componentes Utilizados](#)

[Configurar](#)

[Cenário A: Configurar VXLAN entre três data centers no modo multicast](#)

[Configuração de base](#)

[Diagrama de Rede](#)

[Configuração de DC1\(VTEP1\)](#)

[Configuração DC2\(VTEP2\)](#)

[Configuração DC3\(VTEP3\)](#)

[Cenário B: Configurar VXLAN entre dois data centers no modo Unicast](#)

[Diagrama de Rede](#)

[Configuração DC1](#)

[Configuração DC2](#)

[Verificar](#)

[Cenário A: Configurar VXLAN entre três data centers no modo multicast](#)

[Cenário B: Configurar VXLAN entre dois data centers no modo Unicast](#)

[Troubleshoot](#)

[Debug Diagnostics](#)

[Captura de pacote incorporado](#)

[Comandos adicionais de depuração e solução de problemas](#)

[Informações Relacionadas](#)

## Introduction

A Virtual Extensible LAN (VXLAN) está se tornando mais popular como uma solução de Interconexão de data center (DCI). O recurso VXLAN é usado para fornecer a extensão da Camada 2 sobre o domínio de roteamento público/Camada 3. Este documento discute a configuração básica e a solução de problemas em dispositivos Cisco IOS XE.

As seções Configurar e Verificar deste documento abrangem dois cenários:

- O **cenário A** descreve uma configuração de VXLAN entre três data centers no modo multicast.
- O **cenário B** descreve uma configuração de VXLAN entre dois data centers no modo unicast.

## Prerequisites

## Requirements

A Cisco recomenda que você tenha conhecimento destes tópicos:

- Compreensão básica de sobreposições de DCI e multicast

## Componentes Utilizados

As informações neste documento são baseadas nestas versões de software e hardware:

- ASR1004 executando software 03.16.00.S
- CSR100v(VXE) executando o software 3.16.03.S

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. Se a rede estiver ativa, certifique-se de que você entenda o impacto potencial de qualquer comando.

## Configurar

### Cenário A: Configurar VXLAN entre três data centers no modo multicast

#### Configuração de base

O modo multicast exige conectividade unicast e multicast entre sites. Este guia de configuração usa o OSPF (Open Shortest Path First) para fornecer conectividade unicast e PIM (Host Independent Multicast) bidirecional para fornecer conectividade multicast.

Esta é a configuração básica dos três data centers para o modo de operação multicast:

```
!  
DC1#show run | sec ospf  
router ospf 1  
network 1.1.1.1 0.0.0.0 area 0  
network 10.10.10.4 0.0.0.3 area 0  
!
```

#### Configuração bidirecional do PIM:

```
!  
DC1#show run | sec pim  
ip pim bidir-enable  
ip pim send-rp-discovery scope 10  
ip pim bsr-candidate Loopback1 0  
ip pim rp-candidate Loopback1 group-list 10 bidir  
!  
access-list 10 permit 239.0.0.0 0.0.0.255  
!  
DC1#  
!
```

Além disso, o modo escasso de PIM é ativado em todas as interfaces L3, incluindo o loopback:

```
!
```

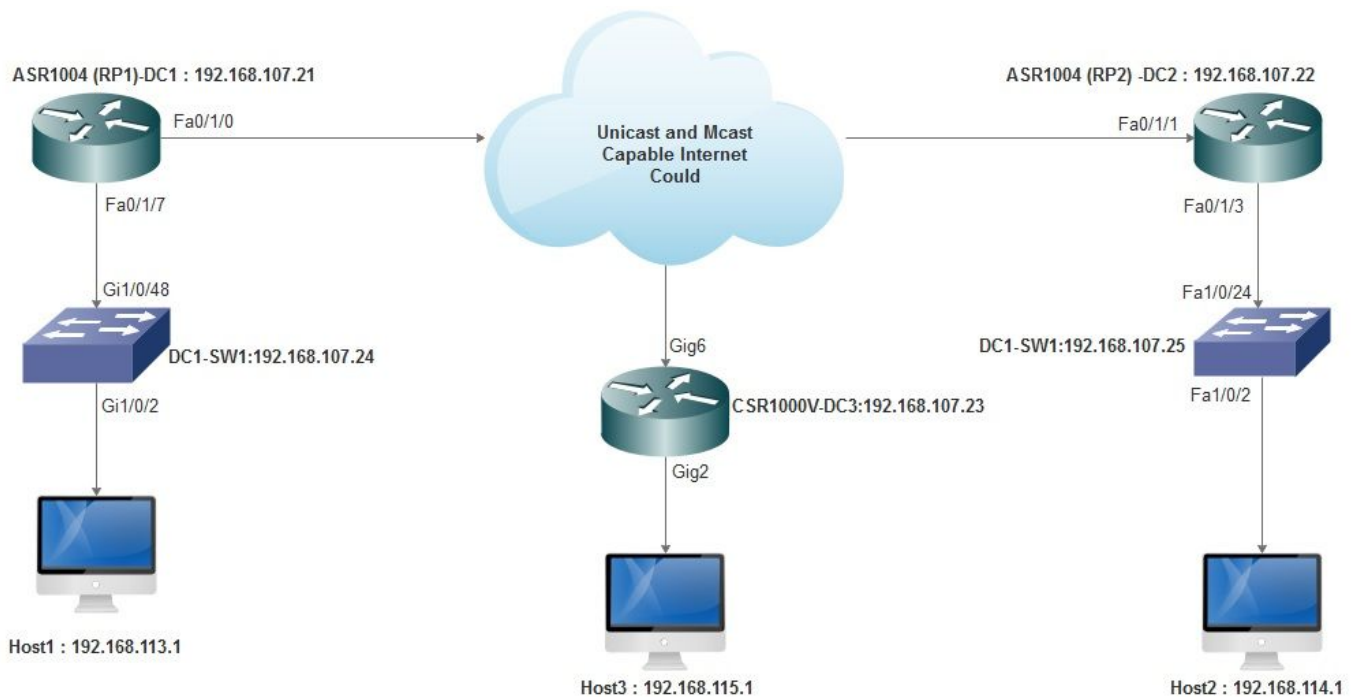
```

DC1#show run interface lo1
Building configuration...
Current configuration : 83 bytes
!
interface Loopback1
ip address 1.1.1.1 255.255.255.255
ip pim sparse-mode
end

```

Verifique também se o roteamento multicast está ativado em seu dispositivo e se a tabela mroute multicast está sendo preenchida.

## Diagrama de Rede



## Configuração de DC1(VTEP1)

```

!
!
Vxlan udp port 1024
!
Interface Loopback1
ip address 1.1.1.1 255.255.255.255
ip pim sparse-mode
!

```

Defina os membros do VNI e a interface do membro na configuração de domínio de bridge:

```

!
bridge-domain 1
member vni 6001
member FastEthernet0/1/7 service-instance 1
!

```

Crie a interface virtual da rede (NVE) e defina os membros do VNI que precisam ser estendidos pela WAN para outros data centers:

```
!  
interface nve1  
no ip address  
shut  
member vni 6001 mcast-group 239.0.0.10  
!  
source-interface Loopback1  
!
```

Crie instâncias de serviço na interface LAN (ou seja, a interface que conecta a rede LAN) para sobrepor a VLAN específica (tráfego marcado 802.1q) - neste caso, a VLAN 1:

```
!  
interface FastEthernet0/1/7  
no ip address  
negotiation auto  
cdp enable  
no shut  
!
```

Remova a marca da VLAN antes de enviar o tráfego através da sobreposição e empurre-a depois que o tráfego de retorno estiver sendo enviado para a VLAN:

```
!  
service instance 1 ethernet  
encapsulation untagged  
!
```

## Configuração DC2(VTEP2)

```
!  
!  
Vxlan udp port 1024  
!  
interface Loopback1  
ip address 2.2.2.2 255.255.255.255  
ip pim sparse-mode  
!  
!  
bridge-domain 1  
member vni 6001  
member FastEthernet0/1/3 service-instance 1  
!  
!  
interface nve1  
no ip address  
member vni 6001 mcast-group 239.0.0.10  
!  
source-interface Loopback1  
shut  
!  
!  
interface FastEthernet0/1/3  
no ip address  
negotiation auto
```

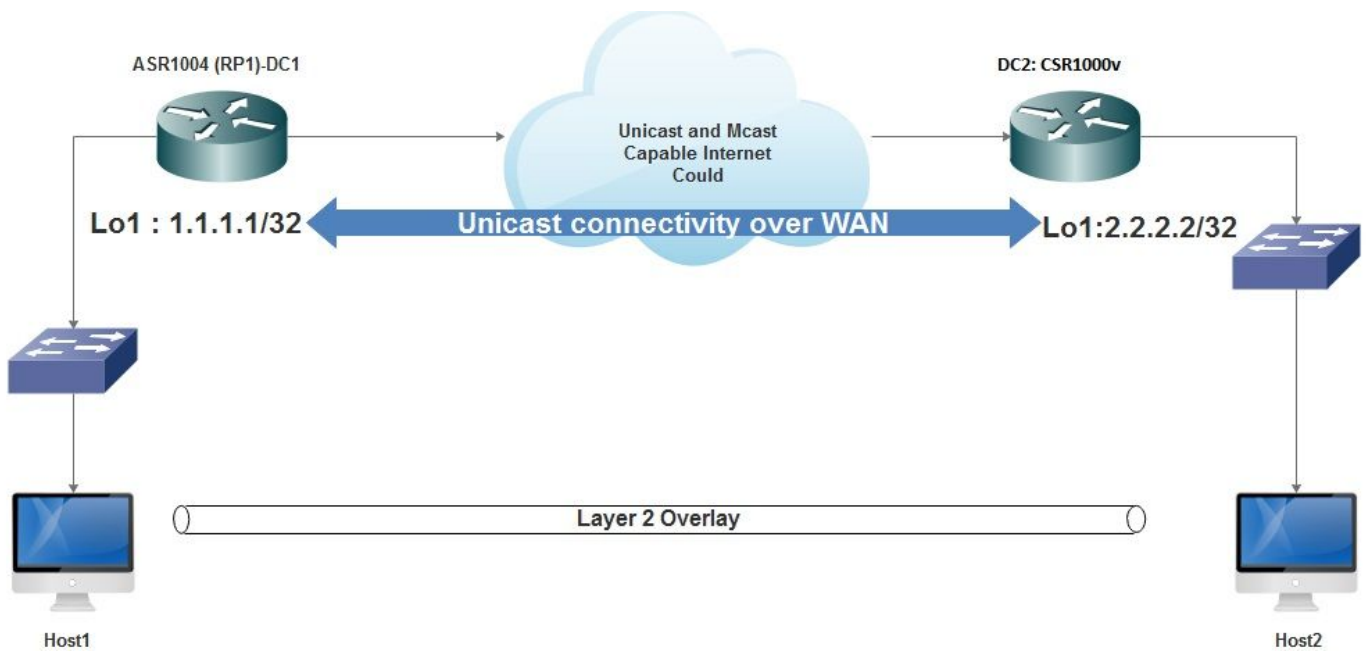
```
cdp enable
no shut
!
service instance 1 ethernet
encapsulation untagged
!
```

## Configuração DC3(VTEP3)

```
!
!
Vxlan udp port 1024
!
interface Loopback1
ip address 3.3.3.3 255.255.255.255
ip pim sparse-mode
!
!
bridge-domain 1
member vni 6001
member GigabitEthernet2 service-instance 1
!
interface nve1
no ip address
shut
member vni 6001 mcast-group 239.0.0.10
!
source-interface Loopback1
!
interface gig2
no ip address
negotiation auto
cdp enable
no shut
!
service instance 1 ethernet
encapsulation untagged
!
```

## Cenário B: Configurar VXLAN entre dois data centers no modo Unicast

### Diagrama de Rede



## Configuração DC1

```

!
interface nve1
no ip address
member vni 6001
! ingress replication should be configured as peer data centers loopback IP address.
!
ingress-replication 2.2.2.2
!
source-interface Loopback1
!
!
interface gig0/2/1
no ip address
negotiation auto
cdp enable
!
service instance 1 ethernet
encapsulation untagged

!
!
!
bridge-domain 1
member vni 6001
member gig0/2/1 service-instance 1

```

## Configuração DC2

```

!
interface nve1
no ip address
member vni 6001
ingress-replication 1.1.1.1
!
source-interface Loopback1
!

```

```

!
interface gig5
no ip address
negotiation auto
cdp enable
!
service instance 1 ethernet
encapsulation untagged

!
!
bridge-domain 1
member vni 6001
member gig5 service-instance 1

```

## Verificar

### Cenário A: Configurar VXLAN entre três data centers no modo multicast

Depois de concluir a configuração para o Cenário A, os hosts conectados em cada Data Center devem ser capazes de alcançar um ao outro dentro do mesmo domínio de broadcast.

Use estes comandos para verificar as configurações. Alguns exemplos são fornecidos no Cenário B.

```

Router#show nve vni
Router#show nve vni interface nve1
Router#show nve interface nve1
Router#show nve interface nve1 detail
Router#show nve peers

```

### Cenário B: Configurar VXLAN entre dois data centers no modo Unicast

#### No DC1:

```

DC1#show nve vni
Interface      VNI      Multicast-group  VNI state
nve1           6001     N/A              Up

DC1#show nve interface nve1 detail
Interface: nve1, State: Admin Up, Oper Up Encapsulation: Vxlan
source-interface: Loopback1 (primary:1.1.1.1 vrf:0)
Pkts In      Bytes In      Pkts Out      Bytes Out
60129        6593586       55067          5303698

DC1#show nve peers
Interface      Peer-IP      VNI      Peer state
nve1           2.2.2.2     6000     -

```

#### No DC2:

```

DC2#show nve vni
Interface VNI Multicast-group VNI state
nve1 6000 N/A Up

```

### DC2#show nve interface nve1 detail

```
Interface: nve1, State: Admin Up, Oper Up Encapsulation: Vxlan
source-interface: Loopback1 (primary:2.2.2.2 vrf:0)
Pkts In Bytes In Pkts Out Bytes Out
70408 7921636 44840 3950835
```

### DC2#show nve peers

```
Interface Peer-IP VNI Peer state
nve 1 1.1.1.1 6000 Up
```

### DC2#show bridge-domain 1

```
Bridge-domain 1 (3 ports in all)
State: UP Mac learning: Enabled
Aging-Timer: 300 second(s)
BDI1 (up)
GigabitEthernet0/2/1 service instance 1
vni 6001
AED MAC address Policy Tag Age Pseudoport
0 7CAD.74FF.2F66 forward dynamic 281 nve1.VNI6001, VxLAN src: 1.1.1.1 dst: 2.2.2.2
0 B838.6130.DA80 forward dynamic 288 nve1.VNI6001, VxLAN src: 1.1.1.1 dst: 2.2.2.2
0 0050.56AD.1AD8 forward dynamic 157 nve1.VNI6001, VxLAN src: 1.1.1.1 dst: 2.2.2.2
```

## Troubleshoot

Os comandos descritos na seção Verificar fornecem etapas básicas de solução de problemas. Esses diagnósticos adicionais podem ser úteis quando o sistema não estiver funcionando.

**Note:** Alguns desses diagnósticos podem aumentar a utilização da memória e da CPU.

## Debug Diagnostics

### #debug nve error

```
*Jan 4 20:00:54.993: NVE-MGR-PEER ERROR: Intf state force down successful for mcast nodes cast
nodes
*Jan 4 20:00:54.993: NVE-MGR-PEER ERROR: Intf state force down successful for mcast nodes cast
nodes
*Jan 4 20:00:54.995: NVE-MGR-PEER ERROR: Intf state force down successful for peer nodes eer
nodes
*Jan 4 20:00:54.995: NVE-MGR-PEER ERROR: Intf state force down successful for peer nodes
```

### #show nve log error

```
[01/01/70 00:04:34.130 UTC 1 3] NVE-MGR-STATE ERROR: vni 6001: error in create notification to
Tunnel
[01/01/70 00:04:34.314 UTC 2 3] NVE-MGR-PEER ERROR: Intf state force up successful for mcast
nodes
[01/01/70 00:04:34.326 UTC 3 3] NVE-MGR-PEER ERROR: Intf state force up successful for peer
nodes
[01/01/70 01:50:59.650 UTC 4 3] NVE-MGR-PEER ERROR: Intf state force down successful for mcast
nodes
[01/01/70 01:50:59.654 UTC 5 3] NVE-MGR-PEER ERROR: Intf state force down successful for peer
nodes
[01/01/70 01:50:59.701 UTC 6 3] NVE-MGR-PEER ERROR: Intf state force up successful for mcast
nodes
[01/01/70 01:50:59.705 UTC 7 3] NVE-MGR-PEER ERROR: Intf state force up successful for peer
nodes
[01/01/70 01:54:55.166 UTC 8 61] NVE-MGR-PEER ERROR: Intf state force down successful for mcast
nodes
[01/01/70 01:54:55.168 UTC 9 61] NVE-MGR-PEER ERROR: Intf state force down successful for peer
nodes
```



```
[01/01/70 01:55:04.432 UTC A 3] NVE-MGR-PEER ERROR: Intf state force up successful for mcast nodes
[01/01/70 01:55:04.434 UTC B 3] NVE-MGR-PEER ERROR: Intf state force up successful for peer nodes
[01/01/70 01:55:37.670 UTC C 61] NVE-MGR-PEER ERROR: Intf state force down successful for mcast nodes
```

#### **#show nve log event**

```
[01/04/70 19:48:51.883 UTC 1DD16 68] NVE-MGR-DB: Return vni 6001 for pi_hdl[0x437C9B68]
[01/04/70 19:48:51.884 UTC 1DD17 68] NVE-MGR-DB: Return pd_hdl[0x1020010] for pi_hdl[0x437C9B68]
[01/04/70 19:48:51.884 UTC 1DD18 68] NVE-MGR-DB: Return vni 6001 for pi_hdl[0x437C9B68]
[01/04/70 19:49:01.884 UTC 1DD19 68] NVE-MGR-DB: Return pd_hdl[0x1020010] for pi_hdl[0x437C9B68]
[01/04/70 19:49:01.884 UTC 1DD1A 68] NVE-MGR-DB: Return vni 6001 for pi_hdl[0x437C9B68]
[01/04/70 19:49:01.885 UTC 1DD1B 68] NVE-MGR-DB: Return pd_hdl[0x1020010] for pi_hdl[0x437C9B68]
[01/04/70 19:49:01.885 UTC 1DD1C 68] NVE-MGR-DB: Return vni 6001 for pi_hdl[0x437C9B68]
[01/04/70 19:49:11.886 UTC 1DD1D 68] NVE-MGR-DB: Return pd_hdl[0x1020010] for pi_hdl[0x437C9B68]
[01/04/70 19:49:11.886 UTC 1DD1E 68] NVE-MGR-DB: Return vni 6001 for pi_hdl[0x437C9B68]
[01/04/70 19:49:11.887 UTC 1DD1F 68] NVE-MGR-DB: Return pd_hdl[0x1020010] for pi_hdl[0x437C9B68]
[01/04/70 19:49:11.887 UTC 1DD20 68] NVE-MGR-DB: Return vni 6001 for pi_hdl[0x437C9B68]
[01/04/70 19:49:21.884 UTC 1DD21 68] NVE-MGR-DB: Return pd_hdl[0x1020010] for pi_hdl[0x437C9B68]
```

## Captura de pacote incorporado

O recurso Captura de pacote incorporado (EPC - Embedded Packet Capture) disponível no software Cisco IOS XE pode fornecer informações adicionais para a solução de problemas.

Por exemplo, essa captura explica o pacote que está sendo encapsulado pela VXLAN:

Configuração EPC (TEST\_ACL é a lista de acesso usada para filtrar os dados de captura):

```
#monitor capture TEST access-list TEST_ACL interface gigabitEthernet0/2/0 both
#monitor capture TEST buffer size 10
#monitor capture TEST start
```

Aqui está o despejo de pacote que resulta em:

```
# show monitor capture TEST buffer dump

# monitor capture TEST export bootflash:TEST.pcap // with this command
you can export the capture in pcap format to the bootflash,
which can be downloaded and opened in wireshark.
```

Este é um exemplo que explica como o ICMP (Internet Control Message Protocol) funciona através da VXLAN.

Address Resolution Protocol (ARP) enviado pela sobreposição VXLAN:

```

> Frame 58: 110 bytes on wire (880 bits), 110 bytes captured (880 bits)
> Ethernet II, Src: CiscoInc_ef:79:20 (c4:64:13:ef:79:20), Dst: Vmware_b3:56:56 (00:50:56:b3:56:56)
> Internet Protocol Version 4, Src: 1.1.1.1, Dst: 2.2.2.2
> User Datagram Protocol, Src Port: 1024 (1024), Dst Port: 1024 (1024)
# Virtual eXtensible Local Area Network
  > Flags: 0x0800, VXLAN Network ID (VNI)
    Group Policy ID: 0
    VXLAN Network Identifier (VNI): 6001
    Reserved: 0
  > Ethernet II, Src: Vmware_87:4e:9c (00:50:56:87:4e:9c), Dst: Broadcast (ff:ff:ff:ff:ff:ff)
# Address Resolution Protocol (request)
  Hardware type: Ethernet (1)
  Protocol type: IPv4 (0x0800)
  Hardware size: 6
  Protocol size: 4
  Opcode: request (1)
  Sender MAC address: Vmware_87:4e:9c (00:50:56:87:4e:9c)
  Sender IP address: 192.192.192.1
  Target MAC address: 00:00:00_00:00:00 (00:00:00:00:00:00)
  Target IP address: 192.192.192.2

```

## Resposta ARP:

```

> Frame 59: 110 bytes on wire (880 bits), 110 bytes captured (880 bits)
> Ethernet II, Src: Vmware_b3:56:56 (00:50:56:b3:56:56), Dst: CiscoInc_ef:79:20 (c4:64:13:ef:79:20)
> Internet Protocol Version 4, Src: 2.2.2.2, Dst: 1.1.1.1
> User Datagram Protocol, Src Port: 8457 (8457), Dst Port: 1024 (1024)
# Virtual eXtensible Local Area Network
  > Flags: 0x0800, VXLAN Network ID (VNI)
    Group Policy ID: 0
    VXLAN Network Identifier (VNI): 6001
    Reserved: 0
  > Ethernet II, Src: Vmware_31:8a:5a (00:0c:29:31:8a:5a), Dst: Vmware_87:4e:9c (00:50:56:87:4e:9c)
# Address Resolution Protocol (reply)
  Hardware type: Ethernet (1)
  Protocol type: IPv4 (0x0800)
  Hardware size: 6
  Protocol size: 4
  Opcode: reply (2)
  Sender MAC address: Vmware_31:8a:5a (00:0c:29:31:8a:5a)
  Sender IP address: 192.192.192.2
  Target MAC address: Vmware_87:4e:9c (00:50:56:87:4e:9c)
  Target IP address: 192.192.192.1

```

## Solicitação ICMP:

```

> Frame 61: 124 bytes on wire (992 bits), 124 bytes captured (992 bits)
> Ethernet II, Src: CiscoInc_ef:79:20 (c4:64:13:ef:79:20), Dst: Vmware_b3:56:56 (00:50:56:b3:56:56)
> Internet Protocol Version 4, Src: 1.1.1.1, Dst: 2.2.2.2
> User Datagram Protocol, Src Port: 52141 (52141), Dst Port: 1024 (1024)
# Virtual eXtensible Local Area Network
  # Flags: 0x0800, VXLAN Network ID (VNI)
    0... .. = GBP Extension: Not defined
    ... .. .0.. .. = Don't Learn: False
    ... 1... .. = VXLAN Network ID (VNI): True
    ... .. .0... = Policy Applied: False
    .000 .000 0.00 .000 = Reserved(R): False
  Group Policy ID: 0
  VXLAN Network Identifier (VNI): 6001
  Reserved: 0
  > Ethernet II, Src: Vmware_87:4e:9c (00:50:56:87:4e:9c), Dst: Vmware_31:8a:5a (00:0c:29:31:8a:5a)
  > Internet Protocol Version 4, Src: 192.192.192.1, Dst: 192.192.192.2
  > Internet Control Message Protocol

```

## Resposta ICMP:

```

> Frame 66: 124 bytes on wire (992 bits), 124 bytes captured (992 bits)
> Ethernet II, Src: Vmware_b3:56:56 (00:50:56:b3:56:56), Dst: CiscoInc_ef:79:20 (c4:64:13:ef:79:20)
> Internet Protocol Version 4, Src: 2.2.2.2, Dst: 1.1.1.1
> User Datagram Protocol, Src Port: 35478 (35478), Dst Port: 1024 (1024)
* Virtual eXtensible Local Area Network
  * Flags: 0x0800, VXLAN Network ID (VNI)
    0... .. = GBP Extension: Not defined
    .... .0.. = Don't Learn: False
    .... 1... = VXLAN Network ID (VNI): True
    .... .. 0... = Policy Applied: False
    .000 .000 0.00 .000 = Reserved(R): False
    Group Policy ID: 0
    VXLAN Network Identifier (VNI): 6001
    Reserved: 0
> Ethernet II, Src: Vmware_31:8a:5a (00:0c:29:31:8a:5a), Dst: Vmware_87:4e:9c (00:50:56:87:4e:9c)
> Internet Protocol Version 4, Src: 192.192.192.2, Dst: 192.192.192.1
* Internet Control Message Protocol
  Type: 0 (Echo (ping) reply)
  Code: 0
  Checksum: 0xeefb [correct]
  Identifier (BE): 1 (0x0001)
  Identifier (LE): 256 (0x0100)
  Sequence number (BE): 26207 (0x665f)
  Sequence number (LE): 24422 (0x5f66)
  [Request frame: 61]
  [Response time: 7.003 ms]
* Data (32 bytes)
  Data: 6162636465666768696a6b6c6d6e6f707172737475767761...
  [Length: 32]

```

## Comandos adicionais de depuração e solução de problemas

Esta seção descreve mais alguns comandos debug e troubleshooting.

Neste exemplo, as partes destacadas da depuração mostram que a interface NVE não pôde ingressar no grupo multicast. Portanto, o encapsulamento VXLAN não foi ativado para VNI 6002. Esses resultados de depuração apontam para problemas de multicast na rede.

```
#debug nve all
```

```

*Jan 5 06:13:55.844: NVE-MGR-DB: creating mcast node for 239.0.0.10
*Jan 5 06:13:55.846: NVE-MGR-MCAST: IGMP add for (0.0.0.0,239.0.0.10) was failure
*Jan 5 06:13:55.846: NVE-MGR-DB ERROR: Unable to join mcast core tree
*Jan 5 06:13:55.846: NVE-MGR-DB ERROR: Unable to join mcast core tree
*Jan 5 06:13:55.846: NVE-MGR-STATE ERROR: vni 6002: error in create notification to mcast
*Jan 5 06:13:55.846: NVE-MGR-STATE ERROR: vni 6002: error in create notification to mcast
*Jan 5 06:13:55.849: NVE-MGR-TUNNEL: Tunnel Endpoint 239.0.0.10 added
*Jan 5 06:13:55.849: NVE-MGR-TUNNEL: Endpoint 239.0.0.10 added
*Jan 5 06:13:55.851: NVE-MGR-EI: Notifying BD engine of VNI 6002 create
*Jan 5 06:13:55.857: NVE-MGR-DB: Return vni 6002 for pi_hdl[0x437C9B28]
*Jan 5 06:13:55.857: NVE-MGR-EI: VNI 6002: BD state changed to up, vni state to Down

```

Este é o relatório de associação do Internet Group Management Protocol (IGMP) que será enviado assim que o VNI ingressar no grupo mcast:

```

> Frame 4649: 46 bytes on wire (368 bits), 46 bytes captured (368 bits)
> Ethernet II, Src: 00:00:00_00:00:00 (00:00:00:00:00:00), Dst: 00:00:00_00:00:00 (00:00:00:00:00:00)
* Internet Protocol Version 4, Src: 1.1.1.1, Dst: 239.0.0.10
  0100 .... = Version: 4
  .... 0110 = Header Length: 24 bytes (6)
  > Differentiated Services Field: 0xc0 (DSCP: CS6, ECN: Not-ECT)
    Total Length: 32
    Identification: 0xab96 (43926)
  > Flags: 0x00
    Fragment offset: 0
    Time to live: 1
    Protocol: IGMP (2)
  > Header checksum: 0x0775 [validation disabled]
    Source: 1.1.1.1
    Destination: 239.0.0.10
    [Source GeoIP: Unknown]
    [Destination GeoIP: Unknown]
  * Options: (4 bytes), Router Alert
    * Router Alert (4 bytes): Router shall examine packet (0)
      * Type: 148
        1... .... = Copy on fragmentation: Yes
        .00. .... = Class: Control (0)
        ...1 0100 = Number: Router Alert (20)
        Length: 4
        Router Alert: Router shall examine packet (0)
  * Internet Group Management Protocol
    [IGMP Version: 2]
    Type: Membership Report (0x16)
    Max Resp Time: 0.0 sec (0x00)
    Header checksum: 0xfaf4 [correct]
    Multicast Address: 239.0.0.10

```

Este exemplo mostra o resultado de depuração esperado depois que você configura um VNI em NVE para o modo Multicast, se o Multicast estiver funcionando conforme esperado:

```

*Jan 5 06:19:20.335: NVE-MGR-DB: [IF 0x14]VNI node creation
*Jan 5 06:19:20.335: NVE-MGR-DB: VNI Node created [437C9B28]
*Jan 5 06:19:20.336: NVE-MGR-PD: VNI 6002 create notification to PD
*Jan 5 06:19:20.336: NVE-MGR-PD: VNI 6002 Create notif successful, map [pd 0x1020017] to [pi 0x437C9B28]
*Jan 5 06:19:20.336: NVE-MGR-DB: creating mcast node for 239.0.0.10
*Jan 5 06:19:20.342: NVE-MGR-MCAST: IGMP add for (0.0.0.0,239.0.0.10) was successful
*Jan 5 06:19:20.345: NVE-MGR-TUNNEL: Tunnel Endpoint 239.0.0.10 added
*Jan 5 06:19:20.345: NVE-MGR-TUNNEL: Endpoint 239.0.0.10 added
*Jan 5 06:19:20.347: NVE-MGR-EI: Notifying BD engine of VNI 6002 create
*Jan 5 06:19:20.347: NVE-MGR-DB: Return pd_hdl[0x1020017] for pi_hdl[0x437C9B28]
*Jan 5 06:19:20.347: NVE-MGR-DB: Return vni 6002 for pi_hdl[0x437C9B28]
*Jan 5 06:19:20.349: NVE-MGR-DB: Return vni state Create for pi_hdl[0x437C9B28]
*Jan 5 06:19:20.349: NVE-MGR-DB: Return vni state Create for pi_hdl[0x437C9B28]
*Jan 5 06:19:20.349: NVE-MGR-DB: Return vni 6002 for pi_hdl[0x437C9B28]
*Jan 5 06:19:20.351: NVE-MGR-EI: L2FIB query for info 0x437C9B28
*Jan 5 06:19:20.351: NVE-MGR-EI: PP up notification for bd_id 3
*Jan 5 06:19:20.351: NVE-MGR-DB: Return vni 6002 for pi_hdl[0x437C9B28]
*Jan 5 06:19:20.352: NVE-MGR-STATE: vni 6002: Notify clients of state change Create to Up
*Jan 5 06:19:20.352: NVE-MGR-DB: Return vni 6002 for pi_hdl[0x437C9B28]
*Jan 5 06:19:20.353: NVE-MGR-PD: VNI 6002 Create to Up State update to PD successful
*Jan 5 06:19:20.353: NVE-MGR-EI: VNI 6002: BD state changed to up, vni state to Up
*Jan 5 06:19:20.353: NVE-MGR-STATE: vni 6002: No state change Up
*Jan 5 06:19:20.353: NVE-MGR-STATE: vni 6002: New State as a result of create Up

```

## Informações Relacionadas

- [Suporte para VxLAN Cisco CSR 1000V](#)
- [Guia de configuração de software dos roteadores de serviços de agregação Cisco ASR 1000 Series](#)
- [Suporte Técnico e Documentação - Cisco Systems](#)