

Cisco IOS XE ۋەچىجى ئىلۇن ئېزىم نىوكتا يوتىھما

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قلص تازىتامولۇم

مەدەنلىق

تىنانا ئېزىم ئېزىم ئەڭبىش لىچك اعوېش رىشكى (VXLAN) ئەتكەن ئەپلى LAN ئەڭبىش تىچبىسى لىچم رېبىع 2 ئەتكەن دادتما رىفووتلىك VXLAN ئەڭبىش ئېزىم مادختىسى مەتى (DCI). يىن ئېزىم ئەتكەن ئەپلى فاش كىتسا او يىسالا نېوكتىپلىك دەنتىپلىك شقانىي 3. ئەتكەن ھېچجىتلىك Cisco IOS XE.

نېويىرانىي دەنتىپلىك ادەن قىچىتلىك ئەن ئەسقىي طغىت:

- ئىلۇن ئېزىم ئېزىم ئەڭبىش نىوكتىپلىك أويىرانىي فىصىي دەعىتلىك.
- يىداحالا ئىلۇن ئېزىم ئېزىم ئەڭبىش نىوكتىپلىك B أويىرانىي فىصىي.

يىسالا ئابلىتلىك

تىپلىتلىك

ةيلاتلا عيضاً اوملاب ةفرعم كيدل نوكـت نـأب Cisco يصـوت:

- ددعـتمـلا ثـبلـاو DCI ةـيـشـغـتلـ يـسـاسـأـلـا مـهـفـلـا

ةـمـدـخـتـسـمـلـا تـانـوـكـمـلـا

ةـيلـاتـلـا ةـيـدـامـلـا تـانـوـكـمـلـا وجـمـارـبـلـا تـارـادـصـا إـلـا دـنـتـسـمـلـا اـذـهـ يـفـ ةـدـرـاـوـلـا تـامـوـلـعـمـلـا دـنـتـسـتـ

- جـمـانـربـلـا 03.16.00.S يـرـاجـلـا ASR1004
- CSR100v(VXE) 3.16.03.S جـمـانـربـلـا لـغـشـيـ يـذـلـا

ةـصـاخـ ةـيـلـمـعـمـ ةـئـيـبـ يـفـ ةـدـوـجـوـمـلـا ةـزـهـجـأـلـا نـمـ دـنـتـسـمـلـا اـذـهـ يـفـ ةـدـرـاـوـلـا تـامـوـلـعـمـلـا ءـاشـنـإـ مـتـ
تنـاكـ اذاـ (ـيـضـارـتـفـاـ) حـوـسـمـمـ نـيـوـكـتـبـ دـنـتـسـمـلـا اـذـهـ يـفـ ةـمـدـخـتـسـمـلـا ةـزـهـجـأـلـا عـيـمـجـ تـأـدبـ
رـمـأـ يـأـلـ لـمـتـحـمـلـا رـيـثـأـتـلـلـ كـمـهـفـ نـمـ دـكـأـتـفـ،ـلـيـغـشـتـلـا دـيـقـ كـتـكـبـشـ

نـيـوـكـتـلـا

ثـبـلـا عـضـوـيـفـ تـانـايـبـ زـكـارـمـ ةـثـالـثـ نـيـوـكـتـ :ـأـ ويـرـانـيـسـلـا
ددـعـتمـلـا

يـسـاسـأـلـا نـيـوـكـتـلـا

مـدـخـتـسـيـ عـقـاـوـمـلـا نـيـبـ دـدـعـتمـلـا ثـبـلـا وـيـدـاحـأـلـا ثـبـلـا لـاـصـتـا دـدـعـتمـلـا ثـبـلـا عـضـوـ بـلـطـتـيـ
ثـبـوـيـدـاحـأـلـا ثـبـلـا لـاـصـتـا رـيـفـوـتـلـ (ـOSPFـ) الـوـأـ رـاـسـمـ رـصـقـأـ حـتـفـ رـاـسـمـ اـذـهـ نـيـوـكـتـلـا لـيـلـدـ
ددـعـتمـلـا ثـبـلـا لـاـصـتـا رـيـفـوـتـلـ (ـPIMـ) هـاجـتـإـلـا يـئـانـثـ لـوـكـوـتـوـرـبـلـا نـعـ لـقـتـسـمـ دـدـعـتمـ

ثـبـلـلـ لـيـغـشـتـلـا عـضـوـلـ ةـثـالـثـلـا تـانـايـبـلـا زـكـارـمـ عـيـمـجـىـلـعـ يـسـاسـأـلـا نـيـوـكـتـلـا يـلـيـ اـمـيـفـ
ددـعـتمـلـا:

```
!
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
!
!اجـتـإـلـا يـئـانـثـ PIM نـيـوـكـتـ :
```

```
!
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#
```

كلـذـيـفـ اـمـبـ،ـL3ـ تـاهـجـاـوـ عـيـمـجـ نـمـضـ رـثـانـتـمـلـا PIM عـضـوـنـيـكـمـتـ مـتـيـ،ـكـلـذـلـا ةـفـاضـإـلـابـ
عـاجـرـتـسـالـاـ

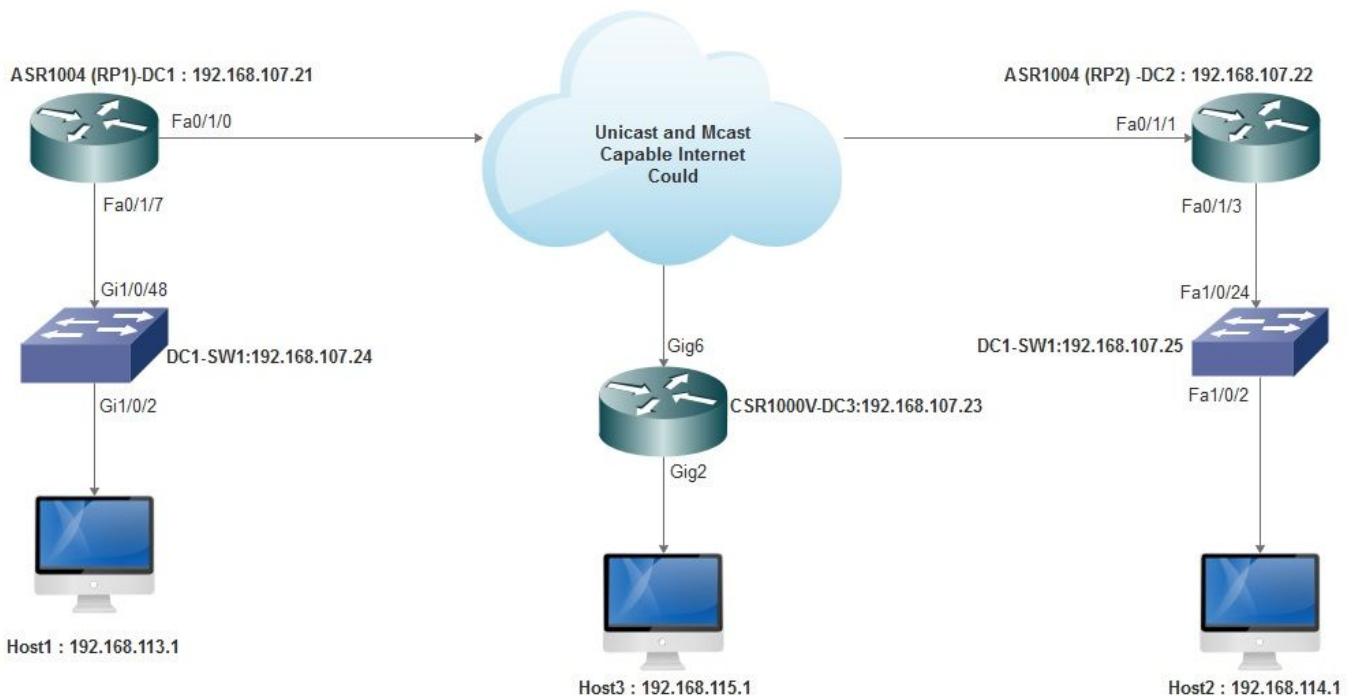
```

!
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

```

ثبل ا راسم لودج ىرت كن او كب صاخلا زاهجل اىلع ددعتملا ثبل ا هيجوت نيكمت نم اضيأ دكأت مولم متى يذلا ددعتملا.

ةكبشلل يطيطختلا مسرلا



نيوكت DC1(VTEP1)

```

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

لـيـكـشـت domainـرسـجـتحـتـنـرـاقـوضـعـلـاوـوضـعـVNIـلـاـتنـيـعـ:

```

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

ربع معيسيوت مزلي نيذلا VNI عاضعأ ددحو (NVE) ةكبشلل ئيرهاظلا ئهجاول اعاشناب مق

ىرخألا تانايبل زكارم ىلا قاطنلا ئاعس اولاصتالا ئكبش:

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

صاخ VLAN ىلا فلغى نأ (ئكبش lan ىلا طبري نأ نراقلى، that is، نراق lan ىلا ربع لاثم ئمدخ تقلخ (802.1q tagged - رورم ئكرح VLAN 1:

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

رورم ئكرح عجري نأ دعب اهعفدو، ئيشغتلا ربع رورم ئكرح لاسري لباق ئقاطب VLAN ىلا تلزا VLAN:

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

نويوكت 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
!

```

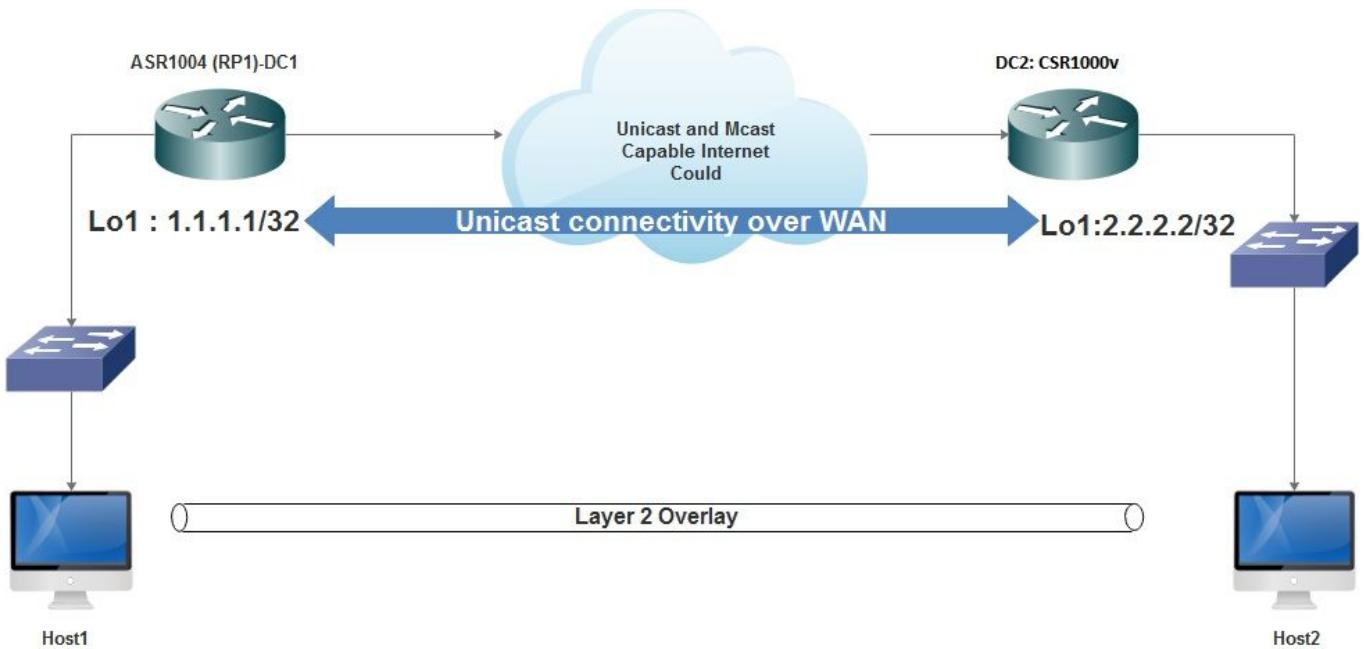
نیوکت DC3(VTEP3)

```

!
!
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
!
```

ثبلاء عضويف تانايپ يزكرم نيب ئەكپش نېوكت بويرانيسلى يداحالا

ئەكپشلى يەطىيەتلى مىسىزلا



نیوکت DC1

```
!
interface nve1
no ip address
member vni 6001
! ingress replication shold 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
```

نیوکت 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

```

ڦھصلانم ڦھٿلما

ٿٻلما عضو یف تانايپ زڪرم ڦھالٺ نڀ ڻڪٻش نڀوکت : أ ويرانيسلا ددعتملا

تانايپ زڪرم لک یف ڦلصتملا تافڀيضملا نوکت نأ بجي، A ويرانيسلا نيوکت لامکا دعوب سفن ٿٻلما لاجم لخاد ضعبلا اه ضعب یلا لوصولا یلع ڦرداق.

ءاب ويرانيسلا راطا یف ڦلثملأا ضعب درتو. تانيوکتلانم ڦھٿتلل رماؤلا هذه مڌتسا.

```

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

```

ٿٻلما عضو یف تانايپ يزڪرم نڀ ڻڪٻش نڀوکت : ب ويرانيسلا يداحالا

ڊف 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      -

```

ڊف 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
```

اھالص او عاطخألا فاشكتس ا

اھالص او عاطخألا فاشكتس اال ۋېسىسىسىنىڭ تاوطخىلا ققىختىلا مىسىقى يەقىنۇمۇلا رەماؤالا رفوت لەمعىي ال ماظنلى نوکىي امدىنۇم ۋېفاصىنىڭ تااصىخشتىلا ھەذە نوكت نأ نكەمىي.

ۋەجەل اعماقلاردا دەرىجىسىنىڭ تااصىخشتىلا ھەذە صىخىشتىلا تايىلمۇم ضۇعىب بېبىستىت دەق: ئەظەرالىم ۋەرگەزىلەنەن ۋېزىرلەنەن.

حېحصىتلى تااصىخشت

```
#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]

```

ةنمضم ةمزح طاقتلا

جمانرب يف ةرفوتملـا (EPC) ـةنمضـمـلا طـاقـتـلـاـ ـةـمزـحـلـاـ ـةـزـيمـ رـفـوتـ نـأـ نـكـمـيـ اـهـحـالـصـ اوـعـاطـخـأـلـاـ فـاشـكـتـسـالـ ـةـيـفـاضـاـ تـامـوـلـعـمـ.

ةطـسـاوـبـ اـهـنـيـمـضـتـ مـتـيـ يـتـلـاـ ـةـمزـحـلـاـ طـاقـتـلـاـ اـذـهـ حـرـشـيـ ،ـلـاثـمـلـاـ لـيـبـسـ ـىـلـعـ Cisco IOS XE VXLAN:

(ـطـاقـتـلـاـ تـانـاـيـبـ ـةـيـفـصـتـلـ ـةـمـدـخـتـسـمـلـاـ لـوـصـوـلـاـ ـةـمـيـاـقـ وـهـ EPC (TEST_ACL):

```
#monitor capture TEST access-list TEST_ACL interface gigabitEthernet0/2/0 both
```

```
#monitor capture TEST buffer size 10
```

```
#monitor capture TEST start
```

جـتنـيـ نـأـ غـيـرـفـتـ طـبـرـلـاـ انـهـ

```
# 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.
```

ربـعـ طـيـسـبـلـاـ (ICMP) تـنـرـتـنـإـلـاـ يـفـ مـكـحـتـلـاـ لـئـاسـرـ لـوـكـوـتـورـبـ لـمـعـ ـةـيـفـيـكـ حـرـشـيـ لـاثـمـ اـنـهـ VXLAN.

ةـكـبـشـ ـةـيـشـغـتـ رـبـعـ (ARP) نـاـونـعـلـاـ لـيـلـحـتـ لـوـكـوـتـورـبـ لـاسـرـاـ مـتـ VXLAN:

```
> Frame 58: 118 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
```

ساخت اجتیاپ 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
```

ب JL 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
```

ساخت اجتیاپ 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: 0x0000, 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): 26287 (0x665f)
  Sequence number (LE): 24422 (0x5f66)
  [Request frame: 61]
  [Response time: 7.003 ms]
# Data (32 bytes)
  Data: 6162636465666768696a6b6c6d6e6f707172737475767761...
  [Length: 32]

```

ةيفرض إلأ احالص او ءاطخألا فاشكتس او ءاطخألا حيحصت رم اوأ

احالص او ءاطخألا فاشكتس او ءاطخألا حيحصت رم اوأ ضعب مسقلأ اذه فصي.

مامضنالا اهنكمي ال NVE ٥٥ جاو نأ ءاطخألا حيحصت نم ٤ زيommلا عازجألا رهظت ،لاثملأا اذه يف جئاتن ريشت VXLAN ل VNI 6002. كل ذل ددعتملأا ثبلا ٤عومجم ىلإ ٤ذه ءاطخألا حيحصت ٤كبشلأا ٤لع ددعتملأا ثبلا ٤ف لكاشم ىلإ

```

#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

```

هلاسرا متيس يذلأ (IGMP) تنرتن إلأ تاعومجم ٤رادا لوكوتورب ٤يوضع ريرقت ٤يلي امييف ثبلا ٤عومجم ىلإ VNI مامضن درجمب:

```

> 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: 0x8775 [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 (28)
#   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

```

NVE نموض VNI نیوکت دعب ۃعقولملأا حیحصت ۃجیتن لاثملأا اذه حضوی عقولتم وہ امک لمعی ددعتملأا ثبلأا ناك اذا ،ددعتملأا ثبلأا عضول:

```

*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

```

ۃلص تاذ تامولعم

- [Cisco CSR 1000V VxLAN](#)
- [نے Cisco ASR 1000 Series میں ZARTEL عیم جتلہ تامدختا جمابر نیوکت لیلد](#)
- [Cisco Systems - تادن تسمل اوینقتلا معدلہ](#)

هـ لـ وـ لـ جـ رـ تـ لـ اـ هـ ذـ هـ

ةـ يـ لـ آـ لـ اـ تـ اـ يـ نـ قـ تـ لـ اـ نـ مـ مـ جـ مـ وـ عـ مـ اـ دـ خـ تـ سـ اـ بـ دـ نـ تـ سـ مـ لـ اـ اـ ذـ هـ تـ مـ جـ رـ تـ
لـ اـ عـ لـ اـ ءـ اـ حـ نـ اـ عـ يـ مـ جـ يـ فـ نـ يـ مـ دـ خـ تـ سـ مـ لـ لـ مـ عـ دـ ئـ وـ تـ حـ مـ يـ دـ قـ تـ لـ ةـ يـ رـ شـ بـ لـ اـ وـ
اـ مـ كـ ةـ قـ يـ قـ دـ نـ وـ كـ تـ نـ لـ ةـ يـ لـ آـ ةـ مـ جـ رـ تـ لـ ضـ فـ اـ نـ اـ ةـ ظـ حـ اـ لـ مـ ئـ جـ رـ يـ .ـ صـ اـ خـ لـ اـ مـ هـ تـ غـ لـ بـ
يـ لـ خـ تـ .ـ فـ رـ تـ حـ مـ مـ جـ رـ تـ مـ اـ هـ دـ قـ يـ يـ تـ لـ اـ ةـ يـ فـ اـ رـ تـ حـ اـ لـ اـ ةـ مـ جـ رـ تـ لـ اـ عـ مـ لـ اـ حـ لـ اـ وـ
ىـ لـ إـ أـ مـ ئـ اـ دـ عـ وـ جـ رـ لـ اـ بـ يـ صـ وـ تـ وـ تـ اـ مـ جـ رـ تـ لـ اـ هـ ذـ هـ ةـ قـ دـ نـ عـ اـ هـ تـ يـ لـ وـ ئـ سـ مـ
(رـ فـ وـ تـ مـ طـ بـ اـ رـ لـ اـ)ـ يـ لـ صـ أـ لـ اـ يـ زـ يـ لـ جـ نـ إـ لـ اـ دـ نـ تـ سـ مـ لـ اـ).