

Controleer end-to-end connectiviteit over een segmentrouting-SP

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Inleiding

Dit document beschrijft het proces om de end-to-end connectiviteit via een segment te controleren en te routeren voor serviceproviders (SP's) met Cisco IOS®XR-software.

Voorwaarden

Vereisten

Cisco raadt kennis van de volgende onderwerpen aan:

- Kennis van basis IP-routing
- Kennis van Cisco IOS en Cisco IOS XR-opdrachtregel

Gebruikte componenten

De informatie in dit document is gebaseerd op de volgende software- en hardware-versies:

- Router met Cisco IOS XR-software
- Router met Cisco IOS-software

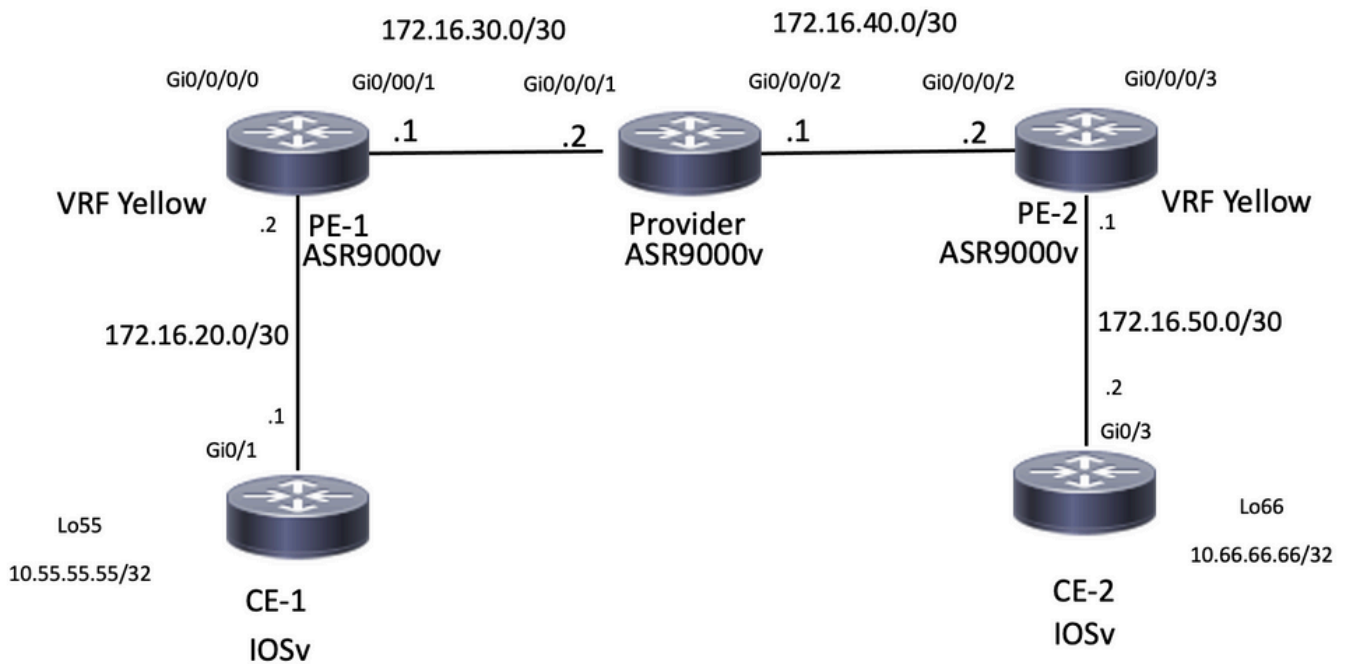
De informatie in dit document is gebaseerd op de apparaten in een specifieke laboratoriumomgeving. Alle apparaten die in dit document worden beschreven, hadden een opgeschoonde (standaard)configuratie. Als uw netwerk live is, moet u zorgen dat u de potentiële impact van elke opdracht begrijpt.

Achtergrondinformatie

Het doel van dit document is om de basisconfiguratie aan te tonen om een segmentroutingcloud te

maken en om de end-to-end connectiviteit op Cisco IOS XR-routers te verifiëren.

Topologie



Netwerktopologie

Eerste verificatie

BGP-configuratie

CE-1

Loopback55 simuleert de LAN kant van router CE-1. U kunt dit prefix via eBGP aan de PE-1 buurman adverteren:

```
CE-1#show run | section r b
router bgp 65535
  bgp router-id 10.1.1.1
  bgp log-neighbor-changes
  redistribute connected
  redistribute eigrp 10
  neighbor 172.16.20.2 remote-as 8181
```

```
CE-1#show ip bgp neighbors 172.16.20.2 advertised-routes
```

```
BGP table version is 25, local router ID is 10.1.1.1
Status codes: s suppressed, d damped, h history, * valid, > best, i - internal,
               r RIB-failure, S Stale, m multipath, b backup-path, f RT-Filter,
               x best-external, a additional-path, c RIB-compressed,
               t secondary path,
Origin codes: i - IGP, e - EGP, ? - incomplete
RPKI validation codes: V valid, I invalid, N Not found
```

Network	Next Hop	Metric	LocPrf	Weight	Path
*> 10.1.1.1/32	0.0.0.0	0		32768	?

```
*> 10.11.11.11/32 192.168.1.1 10880 32768 ?
*> 10.55.55.55/32 0.0.0.0 0 32768 ?
*> 172.16.20.0/30 0.0.0.0 0 32768 ?
*> 192.168.1.0 0.0.0.0 0 32768 ?
```

Total number of prefixes 5

PE-1

Deze router heeft het prefix 10.55.55.55/32 ontvangen en beschikt over connectiviteit, nu is in staat om te adverteren in de Service Provider cloud:

```
RP/0/RP0/CPU0:PE-1#show run vrf
```

```
Fri Jan 27 15:07:10.465 UTC
vrf Yellow
address-family ipv4 unicast
import route-target
200:200
!
export route-target
200:200
!
```

```
RP/0/RP0/CPU0:PE-1#show run router bgp
```

```
Fri Jan 27 14:54:33.488 UTC
router bgp 8181
bgp router-id 10.2.2.2
address-family ipv4 unicast
!
address-family vpnv4 unicast
!
neighbor 10.3.3.3
remote-as 8181
update-source Loopback0
address-family vpnv4 unicast
route-policy PASS in
route-policy PASS out
!
!
vrf Yellow
rd 200:200
address-family ipv4 unicast
!
neighbor 172.16.20.1
remote-as 65535
address-family ipv4 unicast
route-policy PASS in
route-policy PASS out
as-override
!
```

```
RP/0/RP0/CPU0:PE-1#show bgp vrf Yellow ipv4 unicast neighbors 172.16.20.1 routes
```

```
Fri Jan 27 14:54:48.433 UTC
BGP VRF Yellow, state: Active
BGP Route Distinguisher: 200:200
VRF ID: 0x60000001
BGP router identifier 10.2.2.2, local AS number 8181
Non-stop routing is enabled
BGP table state: Active
Table ID: 0xe0000001 RD version: 73
BGP main routing table version 73
BGP NSR Initial initsync version 2 (Reached)
```

BGP NSR/ISSU Sync-Group versions 0/0

Status codes: s suppressed, d damped, h history, * valid, > best
i - internal, r RIB-failure, S stale, N Nexthop-discard

Origin codes: i - IGP, e - EGP, ? - incomplete

Network	Next Hop	Metric	LocPrf	Weight	Path
Route Distinguisher: 200:200 (default for vrf Yellow)					
*> 10.1.1.1/32	172.16.20.1	0		0	65535 ?
*> 10.11.11.11/32	172.16.20.1	10880		0	65535 ?
*> 10.55.55.55/32	172.16.20.1	0	0	0	65535 ?
*> 172.16.20.0/30	172.16.20.1	0		0	65535 ?
*> 192.168.1.0/24	172.16.20.1	0		0	65535 ?

Processed 5 prefixes, 5 paths

RP/0/RP0/CPU0:PE-1#ping vrf Yellow 10.55.55.55

Fri Jan 27 14:55:06.077 UTC

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 10.55.55.55, timeout is 2 seconds:

!!!!!

Success rate is 100 percent (5/5), round-trip min/avg/max = 4/5/7 ms

CE-2

Loopback66 simuleert de LAN kant van CE-2 router. Op een zelfde manier als Ce-1, adverteert deze router het prefix via eBGP aan buurrouter PE-2.

CE-2#show run | section r b

```
router bgp 65535
  bgp router-id 10.5.5.5
  bgp log-neighbor-changes
  redistribute connected
  redistribute eigrp 10
  neighbor 172.16.50.1 remote-as 8181
```

CE-2#show ip bgp neighbors 172.16.50.1 advertised-routes

BGP table version is 15, local router ID is 10.5.5.5

Status codes: s suppressed, d damped, h history, * valid, > best, i - internal,
r RIB-failure, S Stale, m multipath, b backup-path, f RT-Filter,
x best-external, a additional-path, c RIB-compressed,
t secondary path,

Origin codes: i - IGP, e - EGP, ? - incomplete

RPKI validation codes: V valid, I invalid, N Not found

Network	Next Hop	Metric	LocPrf	Weight	Path
*> 10.5.5.5/32	0.0.0.0	0		32768	?
*> 10.22.22.22/32	192.168.4.1	10880		32768	?
*> 10.66.66.66/32	0.0.0.0	0		32768	?
*> 172.16.50.0/30	0.0.0.0	0		32768	?
*> 192.168.4.0	0.0.0.0	0		32768	?

Total number of prefixes 5

PE-2

Deze router kreeg prefix 10.66.66.66/32 en kan nu adverteren naar Service Provider cloud:

RP/0/RP0/CPU0:PE-2#show run vrf

Fri Jan 27 15:07:51.117 UTC

vrf Yellow

address-family ipv4 unicast

import route-target

```
200:200
!  
export route-target  
200:200  
!
```

```
RP/0/RP0/CPU0:PE-2#show run router bgp
```

```
Fri Jan 27 14:59:56.957 UTC  
router bgp 8181  
  bgp router-id 10.4.4.4  
  address-family ipv4 unicast  
  !  
  address-family vpnv4 unicast  
  !  
  neighbor 10.3.3.3  
    remote-as 8181  
    update-source Loopback0  
    address-family vpnv4 unicast  
      route-policy PASS in  
      route-policy PASS out  
  !  
  !  
  vrf Yellow  
    rd 200:200  
    address-family ipv4 unicast  
    !  
    neighbor 172.16.50.2  
      remote-as 65535  
      address-family ipv4 unicast  
        route-policy PASS in  
        route-policy PASS out  
        as-override  
    !
```

```
RP/0/RP0/CPU0:PE-2#show bgp vrf Yellow ipv4 unicast neighbors 172.16.50.2 routes
```

```
Fri Jan 27 15:00:10.383 UTC  
BGP VRF Yellow, state: Active  
BGP Route Distinguisher: 200:200  
VRF ID: 0x60000001  
BGP router identifier 10.4.4.4, local AS number 8181  
Non-stop routing is enabled  
BGP table state: Active  
Table ID: 0xe0000001 RD version: 64  
BGP main routing table version 64  
BGP NSR Initial initsync version 2 (Reached)  
BGP NSR/ISSU Sync-Group versions 0/0
```

```
Status codes: s suppressed, d damped, h history, * valid, > best  
              i - internal, r RIB-failure, S stale, N Nexthop-discard  
Origin codes: i - IGP, e - EGP, ? - incomplete
```

Network	Next Hop	Metric	LocPrf	Weight	Path
Route Distinguisher: 200:200 (default for vrf Yellow)					
*> 10.5.5.5/32	172.16.50.2	0		0	65535 ?
*> 10.22.22.22/32	172.16.50.2	10880		0	65535 ?
*> 10.66.66.66/32	172.16.50.2	0		0	65535 ?
*> 172.16.50.0/30	172.16.50.2	0		0	65535 ?
*> 192.168.4.0/24	172.16.50.2	0		0	65535 ?

```
Processed 5 prefixes, 5 paths
```

```
RP/0/RP0/CPU0:PE-2#ping vrf Yellow 10.66.66.66
```

```
Fri Jan 27 15:00:26.020 UTC  
Type escape sequence to abort.  
Sending 5, 100-byte ICMP Echos to 10.66.66.66, timeout is 2 seconds:
```

!!!!

Success rate is 100 percent (5/5), round-trip min/avg/max = 3/26/120 ms

Routing Information Status van PE-1, Provider en PE-2

Voor deze demonstratie wordt OSPF geconfigureerd als IGP en iBGP.

PE-1

OSPF-buur is een UP- en iBGP-sessie naar 10.3.3.3 die routereflector is.

```
RP/0/RP0/CPU0:PE-1#show run router ospf
```

```
Fri Jan 27 15:09:23.910 UTC
```

```
router ospf 1
  router-id 10.2.2.2
  area 0
  !
  interface GigabitEthernet0/0/0/1
  !
  !
  !
```

```
RP/0/RP0/CPU0:PE-1#show ospf neighbor
```

```
Fri Jan 27 15:09:31.435 UTC
```

```
* Indicates MADJ interface
# Indicates Neighbor awaiting BFD session up
```

```
Neighbors for OSPF 1
```

Neighbor ID	Pri	State	Dead Time	Address	Interface
10.3.3.3	1	FULL/BDR	00:00:37	172.16.30.2	GigabitEthernet0/0/0/1

Neighbor is up for 16:59:30

```
Total neighbor count: 1
```

```
RP/0/RP0/CPU0:PE-1#show bgp vpnv4 unicast summary
```

```
Fri Jan 27 15:09:37.760 UTC
```

```
BGP router identifier 10.2.2.2, local AS number 8181
BGP generic scan interval 60 secs
Non-stop routing is enabled
BGP table state: Active
Table ID: 0x0 RD version: 0
BGP main routing table version 73
BGP NSR Initial initsync version 2 (Reached)
BGP NSR/ISSU Sync-Group versions 0/0
BGP scan interval 60 secs
BGP is operating in STANDALONE mode.
```

Process	RcvTblVer	bRIB/RIB	LabelVer	ImportVer	SendTblVer	StandbyVer
Speaker	73	73	73	73	73	0

Neighbor	Spk	AS	MsgRcvd	MsgSent	TblVer	InQ	OutQ	Up/Down	St/PfxRcd
10.3.3.3	0	8181	1010	997	73	0	0	16:24:45	5

Provider router

Op dit apparaat kunnen we bevestigen dat fungeert als routereflector en iBGP-sessie is ingesteld met burens 10.2.2.2 en 10.4.4.4

```
RP/0/RP0/CPU0:Provider#show run router ospf
```

```
Fri Jan 27 15:19:33.250 UTC
```

```
router ospf 1
```

```

router-id 10.3.3.3
area 0
!
interface GigabitEthernet0/0/0/1
!
interface GigabitEthernet0/0/0/2
!

```

RP/0/RP0/CPU0:Provider#**show run router bgp**

Fri Jan 27 15:11:08.321 UTC

```

router bgp 8181
  bgp router-id 10.3.3.3
  address-family ipv4 unicast
  !
  address-family vpnv4 unicast
  !
  neighbor-group IBGP
    remote-as 8181
    update-source Loopback0
  !
  neighbor 10.2.2.2
    use neighbor-group IBGP
    address-family vpnv4 unicast
    route-policy PASS in
    route-reflector-client
    route-policy PASS out
    next-hop-self
  !
  !
  neighbor 10.4.4.4
    use neighbor-group IBGP
    address-family vpnv4 unicast
    route-policy PASS in
    route-reflector-client
    route-policy PASS out
    next-hop-self
  !

```

RP/0/RP0/CPU0:Provider#**show bgp vpnv4 unicast summary**

Fri Jan 27 15:11:19.263 UTC

BGP router identifier 10.3.3.3, local AS number 8181

BGP generic scan interval 60 secs

Non-stop routing is enabled

BGP table state: Active

Table ID: 0x0 RD version: 0

BGP main routing table version 25

BGP NSR Initial initsync version 1 (Reached)

BGP NSR/ISSU Sync-Group versions 0/0

BGP scan interval 60 secs

BGP is operating in STANDALONE mode.

Process	RcvTblVer	bRIB/RIB	LabelVer	ImportVer	SendTblVer	StandbyVer
Speaker	25	25	25	25	25	0

Neighbor	Spk	AS	MsgRcvd	MsgSent	TblVer	InQ	OutQ	Up/Down	St/PfxRcd
10.2.2.2	0	8181	998	1011	25	0	0	16:26:27	5
10.4.4.4	0	8181	997	1009	25	0	0	16:24:25	5

PE-2

De OSPF-buur is omhoog en de IBGP-sessie naar 10.3.3.3 die Routerreflector is.

RP/0/RP0/CPU0:PE-2#**show run router ospf**

Fri Jan 27 15:12:47.741 UTC

```
router ospf 1
router-id 10.4.4.4
area 0
!
interface GigabitEthernet0/0/0/2
!
```

RP/0/RP0/CPU0:PE-2#**show ospf neighbor**

Fri Jan 27 15:12:55.229 UTC

* Indicates MADJ interface

Indicates Neighbor awaiting BFD session up

Neighbors for OSPF 1

Neighbor ID	Pri	State	Dead Time	Address	Interface
10.3.3.3	1	FULL/DR	00:00:35	172.16.40.1	GigabitEthernet0/0/0/2

Neighbor is up for 17:01:21

Total neighbor count: 1

RP/0/RP0/CPU0:PE-2#**show bgp vpnv4 unicast summary**

Fri Jan 27 15:13:01.911 UTC

BGP router identifier 10.4.4.4, local AS number 8181

BGP generic scan interval 60 secs

Non-stop routing is enabled

BGP table state: Active

Table ID: 0x0 RD version: 0

BGP main routing table version 64

BGP NSR Initial initsync version 2 (Reached)

BGP NSR/ISSU Sync-Group versions 0/0

BGP scan interval 60 secs

BGP is operating in STANDALONE mode.

Process	RcvTblVer	bRIB/RIB	LabelVer	ImportVer	SendTblVer	StandbyVer
Speaker	64	64	64	64	64	0

Neighbor	Spk	AS	MsgRcvd	MsgSent	TblVer	InQ	OutQ	Up/Down	St/PfxRcd
10.3.3.3	0	8181	1011	998	64	0	0	16:26:08	5

RP/0/RP0/CPU0:PE-2#**ping 10.2.2.2 source loopback0**

Fri Jan 27 15:13:09.728 UTC

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 10.2.2.2, timeout is 2 seconds:

!!!!

Success rate is 100 percent (5/5), round-trip min/avg/max = 9/21/67 ms

RP/0/RP0/CPU0:PE-2#**ping 10.3.3.3 source loopback0**

Fri Jan 27 15:13:16.696 UTC

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 10.3.3.3, timeout is 2 seconds:

!!!!

Success rate is 100 percent (5/5), round-trip min/avg/max = 5/6/7 ms

Configuratie van segmentrouting

PE-1

RP/0/RP0/CPU0:PE-1#**show run router ospf**

Fri Jan 27 16:15:56.479 UTC

```
router ospf 1
router-id 10.2.2.2
segment-routing mpls
area 0
segment-routing mpls
interface Loopback0
prefix-sid index 15
```


!

Provider

```
RP/0/RP0/CPU0:Provider#show run router ospf
```

```
Fri Jan 27 16:17:09.471 UTC
```

```
router ospf 1
  router-id 10.3.3.3
  segment-routing mpls
  area 0
    segment-routing mpls
  interface Loopback0
    prefix-sid index 16
```

!

PE-2

```
RP/0/RP0/CPU0:PE-2#show run router ospf
```

```
Fri Jan 27 16:18:11.090 UTC
```

```
router ospf 1
  router-id 10.4.4.4
  segment-routing mpls
  area 0
    segment-routing mpls
  interface Loopback0
    prefix-sid index 17
```

!

Definitieve verificaties

CE-1 kan interface loopback66 bereiken op CE-2 router. De volgende Traceroute-uitvoer toont aan dat het pakket het pad van de switch van het label neemt wanneer het is bestemd voor de prefix 10.66.66.6. Ook kan worden opgemerkt dat het etiket de prefix-zijde 16017 gebruikt als het door router PE-2 gaat:

```
CE-1#ping 10.66.66.66 source loopback0
```

```
Type escape sequence to abort.
```

```
Sending 5, 100-byte ICMP Echos to 10.66.66.66, timeout is 2 seconds:
```

```
Packet sent with a source address of 10.1.1.1
```

```
!!!!!
```

```
Success rate is 100 percent (5/5), round-trip min/avg/max = 9/13/32 ms
```

```
CE-1#traceroute 10.66.66.66 source loopback0
```

```
Type escape sequence to abort.
```

```
Tracing the route to 10.66.66.66
```

```
VRF info: (vrf in name/id, vrf out name/id)
```

```
 1 172.16.20.2 6 msec 5 msec 5 msec
```

```
 2 172.16.30.2 [MPLS: Labels 16017/24003 Exp 0] 12 msec 13 msec 16 msec 3 172.16.40.2 [MPLS:  
Label 24003 Exp 0] 15 msec 13 msec 12 msec
```

```
 4 172.16.50.2 [AS 8181] 13 msec 11 msec *
```

Aangezien de configuratie niet de absolute optie gebruikte, begonnen de etiketten bij 16000 waarden en voegden de prefix-kant toe die voor het Verpletteren van het Segment werd gevormd.

```
RP/0/RP0/CPU0:PE-1#show cef 10.3.3.3/32
```

```

Fri Jan 27 21:32:42.813 UTC
10.3.3.3/32, version 43, labeled SR, internal 0x1000001 0x8110 (ptr 0xe3f6a00) [1], 0x600
(0xe593918), 0xa20 (0xee6e4b8)
Updated Jan 26 23:21:30.314
remote adjacency to GigabitEthernet0/0/0/1
Prefix Len 32, traffic index 0, precedence n/a, priority 1
gateway array (0xe3fbd8) reference count 3, flags 0x68, source rib (7), 0 backups
    [3 type 4 flags 0x8401 (0xeeb1648) ext 0x0 (0x0)]
LW-LDI[type=1, refc=1, ptr=0xe593918, sh-ldi=0xeeb1648]
gateway array update type-time 1 Jan 26 23:21:30.314
LDI Update time Jan 26 23:21:30.315
LW-LDI-TS Jan 26 23:21:30.315
via 172.16.30.2/32, GigabitEthernet0/0/0/1, 8 dependencies, weight 0, class 0 [flags 0x0]
path-idx 0 NHID 0x0 [0xf427148 0xf4271e0]
next hop 172.16.30.2/32
remote adjacency
    local label 16016      labels imposed {ImplNull}

Load distribution: 0 (refcount 3)

Hash OK Interface Address
0 Y GigabitEthernet0/0/0/1 remote

```

RP/0/RP0/CPU0:PE-1#**show cef 10.4.4.4/32**

```

Fri Jan 27 21:29:36.990 UTC
10.4.4.4/32, version 45, labeled SR, internal 0x1000001 0x8110 (ptr 0xe3f65c0) [1], 0x600
(0xe593e70), 0xa28 (0xee6e508)
Updated Jan 26 23:21:47.181
remote adjacency to GigabitEthernet0/0/0/1
Prefix Len 32, traffic index 0, precedence n/a, priority 1
gateway array (0xe3fbe90) reference count 3, flags 0x68, source rib (7), 0 backups
    [2 type 5 flags 0x8401 (0xeeb16a8) ext 0x0 (0x0)]
LW-LDI[type=5, refc=3, ptr=0xe593e70, sh-ldi=0xeeb16a8]
gateway array update type-time 1 Jan 26 23:21:47.182
LDI Update time Jan 26 23:21:47.182
LW-LDI-TS Jan 26 23:21:47.182
via 172.16.30.2/32, GigabitEthernet0/0/0/1, 6 dependencies, weight 0, class 0 [flags 0x0]
path-idx 0 NHID 0x0 [0xf4271e0 0x0]
next hop 172.16.30.2/32
remote adjacency
    local label 16017      labels imposed {16017}

Load distribution: 0 (refcount 2)

Hash OK Interface Address
0 Y GigabitEthernet0/0/0/1 remote

```

Van de andere kant, kan CE-2 ook loopback55 bereiken die op CE-1 router wordt gevestigd:

CE-2#**ping 10.55.55.55 source loopback66**

```

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.55.55.55, timeout is 2 seconds:
Packet sent with a source address of 10.66.66.66
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 11/12/15 ms

```

CE-2#**traceroute 10.55.55.55 source loopback66**

```

Type escape sequence to abort.
Tracing the route to 10.55.55.55
VRF info: (vrf in name/id, vrf out name/id)
 1 172.16.50.1 6 msec 5 msec 4 msec
 2 172.16.40.1 [MPLS: Labels 16015/24003 Exp 0] 9 msec 16 msec 10 msec
 3 172.16.30.1 [MPLS: Label 24003 Exp 0] 10 msec 13 msec 8 msec

```

MPLS-labels

Op de volgende output kunnen we bevestigen dat de etiketten van het Segment worden gebruikt om het verkeer van begin tot eind te switches.

RP/0/RP0/CPU0:PE-1#show mpls forwarding

Fri Jan 27 20:32:13.697 UTC

Local Label	Outgoing Label	Prefix or ID	Outgoing Interface	Next Hop	Bytes Switched
16016	Pop	SR Pfx (idx 16)	Gi0/0/0/1	172.16.30.2	126880
16017	16017	SR Pfx (idx 17)	Gi0/0/0/1	172.16.30.2	17292
24000	Pop	SR Adj (idx 0)	Gi0/0/0/1	172.16.30.2	0
24001	Aggregate	172.16.20.0/30[V]	Yellow		11384
24002	Unlabelled	192.168.1.0/24[V]	Gi0/0/0/0	172.16.20.1	0
24003	Unlabelled	10.55.55.55/32[V]	Gi0/0/0/0	172.16.20.1	0
24004	Unlabelled	10.11.11.11/32[V]	Gi0/0/0/0	172.16.20.1	0
24005	Unlabelled	10.1.1.1/32[V]	Gi0/0/0/0	172.16.20.1	0

RP/0/RP0/CPU0:Provider#show mpls forwarding

Fri Jan 27 20:33:14.878 UTC

Local Label	Outgoing Label	Prefix or ID	Outgoing Interface	Next Hop	Bytes Switched
16015	Pop	SR Pfx (idx 15)	Gi0/0/0/1	172.16.30.1	151687
16017	Pop	SR Pfx (idx 17)	Gi0/0/0/2	172.16.40.2	147701
24000	Pop	SR Adj (idx 0)	Gi0/0/0/1	172.16.30.1	0
24001	Pop	SR Adj (idx 0)	Gi0/0/0/2	172.16.40.2	0

RP/0/RP0/CPU0:PE-2#show mpls forwarding

Fri Jan 27 20:33:49.201 UTC

Local Label	Outgoing Label	Prefix or ID	Outgoing Interface	Next Hop	Bytes Switched
16015	16015	SR Pfx (idx 15)	Gi0/0/0/2	172.16.40.1	25304
16016	Pop	SR Pfx (idx 16)	Gi0/0/0/2	172.16.40.1	128619
24000	Pop	SR Adj (idx 0)	Gi0/0/0/2	172.16.40.1	0
24001	Aggregate	172.16.50.0/30[V]	Yellow		1200
24002	Unlabelled	192.168.4.0/24[V]	Gi0/0/0/3	172.16.50.2	0
24003	Unlabelled	10.66.66.66/32[V]	Gi0/0/0/3	172.16.50.2	0
24004	Unlabelled	10.5.5.5/32[V]	Gi0/0/0/3	172.16.50.2	0
24005	Unlabelled	10.22.22.22/32[V]	Gi0/0/0/3	172.16.50.2	0

```
CE-2#show ip bgp neighbors 172.16.50.1 advertised-routes BGP table version is 5, local router ID
is 5.5.5.5 Status codes: s suppressed, d damped, h history, * valid, > best, i - internal, r
RIB-failure, S Stale, m multipath, b backup-path, f RT-Filter, x best-external, a additional-
path, c RIB-compressed, t secondary path, Origin codes: i - IGP, e - EGP, ? - incomplete RPKI
validation codes: V valid, I invalid, N Not found Network Next Hop Metric LocPrf Weight Path *>
5.5.5.5/32 0.0.0.0 0 32768 ? *> 22.22.22.22/32 192.168.4.1 10880 32768 ? *> 172.16.50.0/30
0.0.0.0 0 32768 ? *> 192.168.4.0 0.0.0.0 0 32768 ? Total number of prefixes 4
```

Over deze vertaling

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