

SRv6 ربع BGP Global IPv6 نيوكت

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قمدقم

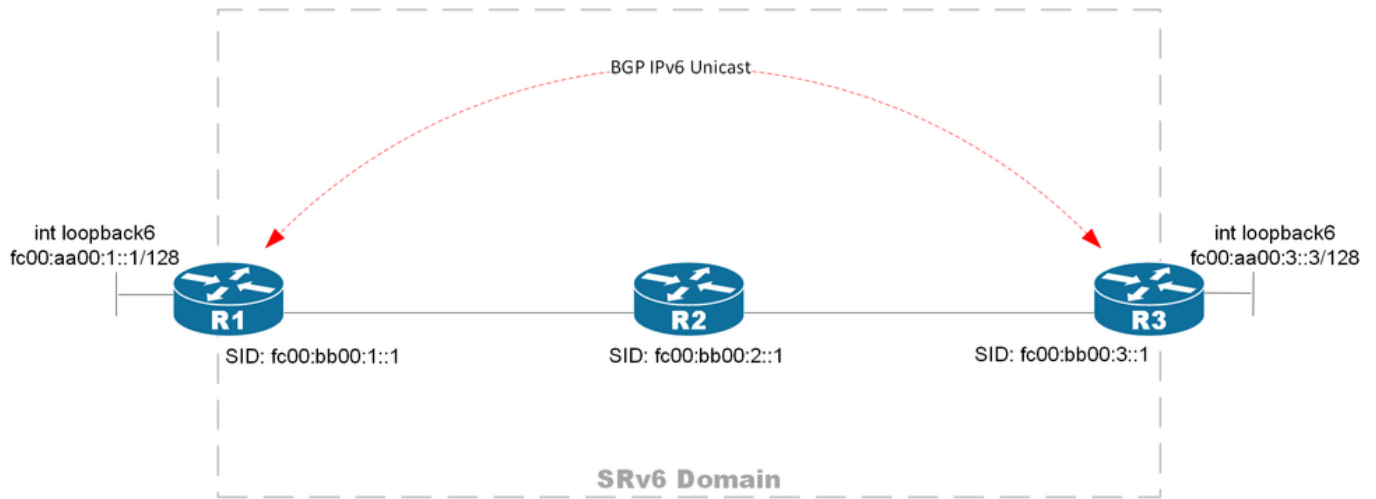
IPv6 ربع نيوضتال عطقم هيچوت قيبطت دنع مكحتال يوتسم قفدت دنتسمال اذه فصي BGP ل IPv6 يدخالال ثبلال لمع ةسلج يلا (SRv6).

قيساسا تامولعم

[Cisco ASR 9000، 24.1.x، 24.2.x، 24.3.x، 24.4.xfor](#) ةيفاضا تامولعم عجار [هيجوت نيوكت ليلى](#).

ططخمل

ةثال نم SRv6 لاجم نوكتي 1. لكشال يف دنتسمال اذه يف مدختسمال ططخمل فصومتى قيساسال قيساسال ةيبنال ذيفنت متي Cisco IOS-XR جمانرب يلع لمعت اهعيمجو، تاهجوم نيهجومال ني ب BGP IPv6 ثبلل يدخال رطانت عاشن متي SRv6 SID عم IS-IS مادختساب SRv6 ل نيوكتال اذه يف P هجومك لمعيو BGP لوكوتورب يف R2 هجومال كراشي ال امنيب، R3 و R1 ثبلل يراظن ني ب اهلدابت بجي IPv6 ةئداب R3 و R1 نم لك يلع 6 عاجرتسالال هجاو لثمت BGP IPv6 يدخالال.



BGP لوكونتور بول SRv6 ربع يداحأل ثبأل طاطخم طاطخم طاطخم 1. لكشال

SRv6 نيوكت

SRv6 نيوكت R2 هجومال نمضتي. اهعيج ةثالثال SRv6 تاهجوم نيوكت مسقلا اذه حضوي BGP لوكونتور بول في كراشي ال هنأل، ططق.

R1 هجومال نيوكت

يداحأ هجومك اضيأ لمعي امك. FC00:bb00:1/48 عقوم ددحم عم SRv6 لاجم نم اعزج R1 هجومال دعي هنإف، كلذى إلى ةفاضإلاب. fc00:aa00:1::1/128 ةيلحمل ةئدابل جتنبي يذلاو، BGP IPv6 ثبأل ل ةيساسأل ةينبأل ربع R3 هجومال مادختساب BGP IPv6 ل ثبأل يداحأ عيجمت عاشنإب موقبي قفدت ءاطخأ حيحصتل ةيادب ةطقنك قماغلا طخلاب هزاربإ متي يذال نيوكتال لمعي SRv6. ربع مدختسمال ديجوال لغشمال وهو دنتسمال اذه في ةحضومال مكحتال

<#root>

```
interface Loopback0
  ipv4 address 10.0.0.1 255.255.255.255
  ipv6 address fc00:bb00:1::1/128
!
interface Loopback6
  ipv6 address fc00:aa00:1::1/128
!
interface TenGigE0/0/0/8
  ipv6 enable
!
router isis 1
  is-type level-1
  net 49.0000.0000.0001.00
  address-family ipv6 unicast
  metric-style wide
  segment-routing srv6
  locator MAIN
!
!
!
interface TenGigE0/0/0/8
  point-to-point
```

```

    address-family ipv6 unicast
    !
    !
    !
router bgp 1
  bgp router-id 10.0.0.1
  segment-routing srv6
    locator MAIN
  !
  address-family ipv6 unicast
    segment-routing srv6
      locator MAIN
      alloc mode per-vrf
    !
    network fc00:aa00:1::1/128
  !
  neighbor fc00:bb00:3::1
    remote-as 1
    update-source Loopback0
  address-family ipv6 unicast

```

encapsulation-type srv6

```

    !
    !
segment-routing
  srv6
    encapsulation
      source-address fc00:bb00:1::1
    !
  locators
    locator MAIN
      micro-segment behavior unode psp-usd
      prefix fc00:bb00:1::/48
    !

```

R2 هجومال نيوكت

لوكتوتورب ي ف كراشي الو. FC00:bb00:2:/48 عقوم ددحم عم SRv6 لاجم نم اعزج R2 هجومال دعي ططخمل هذه لخاد P هجومك لمعي و BGP.

```

interface Loopback0
  ipv4 address 10.0.0.2 255.255.255.255
  ipv6 address fc00:bb00:2::1/128
!
interface TenGigE0/0/0/0
  description T0 R1
  ipv6 enable
!
interface TenGigE0/0/0/1
  description T0 R2
  ipv6 enable
!
router isis 1
  is-type level-1
  net 49.0000.0000.0002.00

```

```

address-family ipv6 unicast
  metric-style wide
  segment-routing srv6
    locator MAIN
  !
!
!
interface TenGigE0/0/0/0
  point-to-point
  address-family ipv6 unicast
  !
!
interface TenGigE0/0/0/1
  point-to-point
  address-family ipv6 unicast
  !
!
!
segment-routing
  srv6
    encapsulation
      source-address fc00:bb00:2::1
    !
  locators
    locator MAIN
      micro-segment behavior unode psp-usd
      prefix fc00:bb00:2::/48
    !

```

R3 هجومال نيوكت

BGP IPv6 ىلع يوتحي امك. FC00:bb00:3:/48 عقوم ددحم عم SRv6 لاجم نم اعزج R3 هجومال دعي تاهجاو نم IPv6 تائداب لدابتب امهنم الك موقيو، R1 هجومال مادختساب يداخال ثبلا رابتخال هب ةصخال 6 عاجرتسال.

```

interface Loopback0
  ipv4 address 10.0.0.3 255.255.255.255
  ipv6 address fc00:bb00:3::1/128
!
interface Loopback6
  ipv6 address fc00:aa00:3::3/128
!
interface TenGigE0/0/0/1
  description T0 R2
  ipv6 enable
!
router isis 1
  is-type level-1
  net 49.0000.0000.0003.00
  address-family ipv6 unicast
    metric-style wide
    segment-routing srv6
      locator MAIN
    !
  !
!

```


RP/0/RSP0/CPU0:R1#

show isis database verbose R2 | include SRv6 Locator

SRv6 Locator: MT (IPv6 Unicast)

fc00:bb00:2::/48

D:0 Metric: 0 Algorithm: 0

RP/0/RSP0/CPU0:R1#

show isis database verbose R3 | include SRv6 Locator

SRv6 Locator: MT (IPv6 Unicast)

fc00:bb00:3::/48

D:0 Metric: 1 Algorithm: 0

نېكمت دنع (GRT) يملع ال هيجوت ل لودج تانايب رورم ةكرح ةيشغت اذه SRv6 ذيفنت معدني
ءاشناب هجوم لك موقبي، R3 و R1 نم لك ىلع IPv6 ةيملع ال BGP يداحأل ثبل ةيشغت ةمدخ
كولس مدختسي و يضارت فال VRF ب اذه ةمدخ ل نامأ فرع م نرتقي. ديدج ةمدخ (SID) نامأ فرع م
ثبل رئاظن نيب اذه ةمدخ ل نامأ فرع م لدابت بجي. ويراني سلا اذه يف uDT6 ةياهن ل ةطقن
تاوطخ يلات ل مسق ل صخل ي. BGP يراظن نيب SRv6 هيجوت ةداع ل نيكمت ل BGP IPv6 يداحأل
(SRv6) عون نم ةلسبك ةيلمع نيكمت ل لغشم ل ذيفنت نم اءدب، BGP تاراش ل لاسرا قفدت
R3 هجوم ل ىلع SRv6 هيجوت ةداع ل ةجرمب اهيف متي يت ل ةطقن ل ىل.

1. SRv6 نيمضت نيكمت لبق ةلال

هجوم ل يوتحي نأ بجي، BGP ريظن ل IPv6 Unicast SAFI ىلع SRv6 ةلسبك ةيلمع نيكمت لبق
هيجوت 'نيكمت متي ام دنع ثدحي اذهو. ةنيعل م ةمدخ ل ل SIDs عم BGP IPv6 تائداب ىلع R1
يلحم ل SID جارخال ضرعي. R1 ىلع IPv6 يداحأل ثبل ل ماع ل SAFI نمض 'SRv6' عطقم ل
FC00:bb00:1:e002: صمخ م نيمض تائداب ل عيمجل صصخم.

<#root>

RP/0/RSP0/CPU0:R1#

show bgp ipv6 unicast local-sids

BGP router identifier 10.0.0.1, local AS number 1
BGP generic scan interval 60 secs
Non-stop routing is enabled
BGP table state: Active
Table ID: 0xe0800000 RD version: 7
BGP table nexthop route policy:
BGP main routing table version 7
BGP NSR Initial initsync version 7 (Reached)
BGP NSR/ISSU Sync-Group versions 0/0
BGP scan interval 60 secs

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

NetworkLocal Sid

Alloc modeLocator

*> fc00:aa00:1::1/128 fc00:bb00:1:e002::per-vrftMAIN

*>ifc00:aa00:3::3/128 NO SRv6 Sid- -

Processed 2 prefixes, 2 paths

يُعلن ويوتحتي تي ال R1 لي sid_mgr اذ ه ل مع ط سا وب ايل حم اذ ه م دخل ال نام ا فر ع م ع ج م رب م ت ين ع ي اذ ه و . BGP ل كول م م و ي ض ا ر ت ف ال ال VRF ب ن ر ت ق م ال ال uDT6 ك ا ي ا ه ن ال ط ق ن كول س و ه و : SID FC00:bb00:1:e002: م د خ ع م ق با ط ي ه و ج و ن ا و ن ع ع م ز ح R1 ت م ل ت س ا م ل ك ط ا س ب ب ا ه ل س ب ك ك ف م ت ي ت ال م ز ح ال ل ا س ر ا و س ا ر ال ا ل س ب ك ك ف ب R1 م و ق ي ن ا ب ج ي و ، ر ي خ ال ع ط ق م ال ع ي م ج د ر س ي ي ذ ل RFC8986 ل ا ق ف و اذ ه و . VRF ب ص ا خ ال ي ض ا ر ت ف ال ال IPv6 ل و د ج ن ع FIB ث ح ب ي ال SID م د خ ال ق ل خ ي sid_mgr ال ض ر ع ي و ه ث ي ح ج ا ت ن ال ا ل ت ط ح ال . SRv6 ا ي ا ه ن ط ق ن كول س FIB ف ا ط م ال ا ي ا ه ن ي ف و RIB ي ال ا م و ل ع م ال ه ذ ه ر ر م ن و : FC00:bb00:1:e002:

<#root>

RP/0/RSP0/CPU0:R1#

show segment-routing srv6 sid all

*** Locator: 'MAIN' ***

SID	Behavior	Context	Owner	Sta
-----	-----	-----	-----	----
fc00:bb00:1::	uN (PSP/USD)	'default':1	sidmgr	InU
fc00:bb00:1:e001::	uA (PSP/USD)	[Te0/0/0/8, Link-Local]:0	isis-1	InU
fc00:bb00:1:e002::	uDT6	'default'	bgp-1	
InUse Y				

RP/0/RSP0/CPU0:R1#

show segment-routing srv6 sid fc00:bb00:1:e002:: internal

*** Locator: 'MAIN' ***

SID	Behavior	Context	Owner	Sta
-----	-----	-----	-----	----
fc00:bb00:1:e002::				
uDT6 'default' bgp-1 InUse Y				
SID Function: 0xe002				
SID context: { table-id=0xe0800000 ('default':IPv6/Unicast) }				
App data: [0000000000000000]				
Locator: 'MAIN'				
Allocation type: Dynamic				
Owner List:				
1) Name: bgp-1, Client-ID: 32, Proto-ID: 8, Node-ID: 0, Locator-ID: 5 ()				
RefCount: 1				
Flags: 0x0 ()				
Chkpt Obj ID: 0x2f60				
TI Object:				

Type: Entry
Ptr: 0x140160285526000, Producer ID: 0
Flags:
 Generic: 0x0 ()
 Specific: 0x0 ()
Modified: Fri Jun 27 16:27:05 EST 2025 (2d01h ago)
Created: Jun 27 16:17:40.796 (2d01h ago)
Event history:

SIDMGR-OPCODE-EVENT-CLASS
Total entries : 4

Event	Time Stamp	S, M
object create	Jun 27 16:17:40.864	1, 0
object delete	Jun 27 16:27:04.320	1, 1
object modify	Jun 27 16:27:04.320	0, 1
object refcount decrement	Jun 27 16:27:04.320	0, 1

RP/0/RSP0/CPU0:R1#

show route ipv6 fc00:bb00:1:e002:: detail

Routing entry for

fc00:bb00:1:e002::/64

Known via

"local-srv6 bgp-1"

, distance 0, metric 0,

SRv6 Endpoint uDT6

, SRv6 Format f3216

Installed Jun 27 16:27:06.040 for 2d01h

Routing Descriptor Blocks

directly connected

Route metric is 0

Label: None

Tunnel ID: None

Binding Label: None

Extended communities count: 0

NHID: 0x0 (Ref: 0)

Route version is 0x15 (21)

No local label

IP Precedence: Not Set

QoS Group ID: Not Set

Flow-tag: Not Set

Fwd-class: Not Set

Route Priority: RIB_PRIORITY_LOCAL (3) SVD Type RIB_SVD_TYPE_LOCAL

Download Priority 0, Download Version 3140327

No advertising protos.

RP/0/RSP0/CPU0:R1#

show cef ipv6 fc00:bb00:1:e002::

fc00:bb00:1:e002::/64, version 3140327,

SRv6 Endpoint uDT6

, internal 0x1000001 0x0 (ptr 0x7bb98f54) [1], 0x400 (0x7ba7cfa0), 0x0 (0x7a90d290)

```

Updated Jun 27 16:27:06.043
Prefix Len 64, traffic index 0, precedence n/a, priority 0
gateway array (0x78e92608) reference count 3, flags 0x0, source rib (7), 0 backups
    [4 type 3 flags 0x8401 (0x78f35598) ext 0x0 (0x0)]
LW-LDI[type=3, refc=1, ptr=0x7ba7cfa0, sh-ldi=0x78f35598]
gateway array update type-time 1 Jun 26 15:54:48.345
LDI Update time Jun 26 15:54:48.349
LW-LDI-TS Jun 27 16:17:42.533
Accounting: Disabled
    via ::/128, 0 dependencies, weight 0, class 0 [flags 0x0]
    path-idx 0 NHID 0x0 [0x781b61e8 0x0]
    next hop ::/128

Load distribution: 0 (refcount 4)

Hash   OK   Interface           Address
0      Y   recursive          Lookup in table

```

BGP IPv6 يداحل الـ ثبـلـا رـيـظـن بـجـومـبـ SRv6 نـيـمـضـت قـيـلـمـع نـيـكـمـتـب مـقـت مـل R1 نـأـل اـرـظـن مـغـرـلـا يـلـع ، BGP ثـيـدـحـت يـف SRv6 TLV نـود R3 هـاـجـت تـائـدـاـبـلـا هـذـه نـع نـلـعـأ R1 نـإـف ، اـهـب صـاـخـلـا اـيـلـحـم قـيـلـحـم SIDs نـيـيـعـتـب مـاـق دـق R1 نـأ نـم .

<#root>

RP/0/RSP0/CPU0:R1#

show bgp ipv6 unicast

```

BGP router identifier 10.0.0.1, local AS number 1
BGP generic scan interval 60 secs
Non-stop routing is enabled
BGP table state: Active
Table ID: 0xe0800000 RD version: 7
BGP table nexthop route policy:
BGP main routing table version 7
BGP NSR Initial initsync version 7 (Reached)
BGP NSR/ISSU Sync-Group versions 0/0
BGP scan interval 60 secs

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
*> fc00:aa00:1::1/128 ::                                0           32768 i
*> ifc00:aa00:3::3/128 fc00:bb00:3::1                0           100    0 i

```

Processed 2 prefixes, 2 paths

RP/0/RSP0/CPU0:R1#

show bgp ipv6 unicast advertised neighbor fc00:bb00:3::1

```

fc00:aa00:1::1/128 is advertised to fc00:bb00:3::1
Path info:
    neighbor: Local          neighbor router id: 10.0.0.1

```

```
valid local best
Received Path ID 0, Local Path ID 1, version 4
Attributes after inbound policy was applied:
  next hop: ::
  MET ORG AS
  origin: IGP metric: 0
  aspath:
Attributes after outbound policy was applied:
  next hop: fc00:bb00:1::1
  MET ORG AS
  origin: IGP metric: 0
  aspath:
```

R1 نم ةدراول تائدابلا تي بثتب مق R3. R3 SID. R1 هجوملا نم ثي دحتلا R3 هجوملا ملتسي
SRv6. سار نودب هب صاخلا FIB و RIB لودج ىلا

<#root>

RP/0/RSP0/CPU0:R3#

show bgp ipv6 unicast received-sids

```
BGP router identifier 10.0.0.3, local AS number 1
BGP generic scan interval 60 secs
Non-stop routing is enabled
BGP table state: Active
Table ID: 0xe0800000 RD version: 44
BGP table nexthop route policy:
BGP main routing table version 44
BGP NSR Initial initsync version 6 (Reached)
BGP NSR/ISSU Sync-Group versions 0/0
BGP scan interval 60 secs
```

```
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                Received Sid
*>fc00:aa00:1::1/128 fc00:bb00:1::1                NO SRv6 Sid
*> fc00:aa00:3::3/128 ::                            NO SRv6 Sid
```

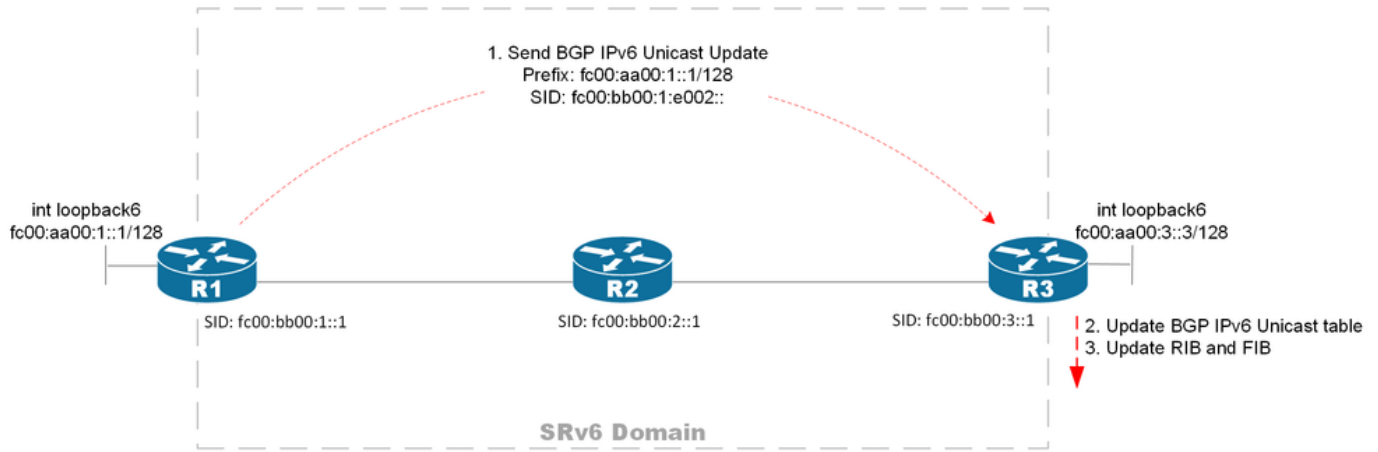
Processed 2 prefixes, 2 paths

RP/0/RSP0/CPU0:R3#

show route ipv6 unicast fc00:aa00:1::1/128 detail

```
Routing entry for fc00:aa00:1::1/128
  Known via "bgp 1", distance 200, metric 0, type internal
  Installed Jun  8 17:34:24.126 for 00:12:38
  Routing Descriptor Blocks
    fc00:bb00:1::1, from fc00:bb00:1::1
      Route metric is 0
      Label: None
      Tunnel ID: None
      Binding Label: None
```

عون عم BGP ريظن ىلى BGP شي دحت ةل اسر لاسر ا في SRV6 ةلسبك ةي لمع ني كم ت بب س تي
فرعم مادختساب BGP ةئداب نع نالعالل عطقملا هي جوت في همادختسا متي يذلاو، 40 ةمسلا
1::3:bb00:fc00 IPv6 ةئداب ل R3 ىلى شي دحت ل R1 هجوم ل لسري. (SID) ددحم عطقم هي جوت
R3 هجوم ل موقي، شي دحت ل يقلت دنع FC00:bb00:1:e002:: SID نرتقم ل عم (1 ةوطخل)
شي دحت ب موقي م (2 ةوطخل) BGP لوكوتوربل يداخل ال ثبل ل IPv6 يداخل ال ثبل ل لودج شي دحت ب
تاوطخل عم BGP تاراشا قفدت 2 لكش ل حضوي. (3 ةوطخل) هب ةصاغل FIB و RIB ل وادج
ةلباقم ل.



SRV6 نيمضت ال نيكمت دعب BGP تاراش | قفدت 2. لكش

R3، ريظننل ال SRv6 نيمضت ال نيكمت دعب قرشابم BGP عاطخ احيحصت لجس ج اخلال ضرعي
R3 ال BGP ثي دحت ال اسر لسري R1 نأ راهظا عم

```
router bgp 1
 neighbor fc00:bb00:3::1
 address-family ipv6 unicast
 encapsulation-type srv6
 !
 !
 !
end
```

RP/0/RSP0/CPU0:R1(config)#commit

```
bgp[1100]: [default-upd] (ip6u): Added reference to table TBL:default (2/1) refcount 9
bgp[1100]: [default-upd] (ip6u): Created update group for table TBL:default (2/1), index 0.3 neighbor f
bgp[1100]: [default-upd] (ip6u): Removed neighbor fc00:bb00:3::1 from update group 0.2 for IPv6 Unicast
bgp[1100]: [default-upd] (ip6u): Removing neighbor fc00:bb00:3::1 from update filter-group 0.2 in IPv6 U
bgp[1100]: [default-upd]: Enqueue Wdw: Nbr:fc00:bb00:3::1(5) Wdw:0 Del:0 Pending:0 RefreshPending:0
bgp[1100]: [default-upd]: Deleting filter-group 0.2 in TBL:default (2/1) refcount 2
bgp[1100]: [default-upd] (ip6u): Deleted update group 0.2
bgp[1100]: [default-upd] (ip6u): Added reference to table TBL:default (2/1) refcount 10
bgp[1100]: [default-upd]: Compute RT set for vrf default neighbor fc00:bb00:3::1 from old filter-group
bgp[1100]: [default-upd]: Allocating filter-group 0.3 in TBL:default (2/1)
bgp[1100]: [default-upd] (ip6u): Added reference to table TBL:default (2/1) refcount 11
bgp[1100]: [default-upd] (ip6u): Adding vrf default neighbor fc00:bb00:3::1 to new filter-group 0.3 in
bgp[1100]: [default-upd] (ip6u): Added vrf default neighbor fc00:bb00:3::1 to update filter-group 0.3 i
bgp[1100]: [default-upd] (ip6u): Added neighbor fc00:bb00:3::1 to update sub-group 0.1 in IPv6 Unicast
bgp[1100]: [default-upd] (ip6u): Started updgrp timer for updgrp 0.3:: delay=0.010, delaytype=0
bgp[1100]: [default-upd] (ip6u): Removed reference to Table TBL:default (2/1) refcount 9
bgp[1100]: [default-upd] (ip6u): Starting updgen walk for updgrp 0.3:: targetver=27: tblver=27, labelv
bgp[1100]: [default-upd] (ip6u): Computing updates for update sub-group 0.1 (Regular)
bgp[1100]: [default-upd] (ip6u): bgp_srv6_execute_sid_alloc_mode_policy: Use default SRv6 alloc mode pe
bgp[1100]: [default-upd]: table-attr walk for table TBL:default (2/1), resume version 0, subgrp version
bgp[1100]: [default-upd] (ip6u): process UPDATE for: tbl=TBL:default (2/1), afi=5: ug=0.3, (Regular), p
bgp[1100]: [default-upd] (ip6u): Ran 'internal' policy '(null)', result 'TRUE', ptr 0x7f4584005f30, use
bgp[1100]: [default-upd] (ip6u):      : tbl=TBL:default (2/1), afi=5: ug=0.3, sg=0.1, ugf1=0x00104183: n
bgp[1100]: [default-upd] (ip6u):      <NH&LABEL-SEL>: tbl=TBL:default (2/1), afi=5: ug=0.3, sg=0.1, ugf1
bgp[1100]: [default-upd] (ip6u):      <nh&label-sel>:: labselectdo=1, labselectdone=0, updlab=1048577(0
bgp[1100]: [default-upd]: Comm-lib: Assigned ID (0x1d000008) for elem-type PREFIX_SID SRV6_L3SVC
bgp[1100]: [default-upd]: Comm-lib: Assigned ID (0x9000000c) for elem-type Attribute
bgp[1100]: [default-upd] (ip6u): Permit UPDATE to filter-group 0.3 (Regular, pelem Regular) for fc00:aa
```

```

bgp[1100]: [default-upd] (ip6u): Sending UPDATE message(0x0x7f4589fd4ba4) to sub-group 0.1 (Regular, pe
bgp[1100]: [default-upd] (ip6u): origin i, path , metric 0, localpref 100, Prefix-SID attribute 0x05002
bgp[1100]: [default-upd] (ip6u): Created msg elem 0x0x7f4589e3afc8 (pointing to message 0x0x7f4589fd4ba
bgp[1100]: [default-upd] (ip6u): process UPDATE for: tbl=TBL:default (2/1), afi=5: ug=0.3, (Regular), p
bgp[1100]: [default-upd] (ip6u): No unreachable (not advertising to sender: fc00:bb00:3::1) sent to sub
bgp[1100]: [default-upd] (ip6u): Generated 1 updates for update sub-group 0.1 (average size = 126 bytes
bgp[1100]: [default-upd] (ip6u): Updates replicated to neighbor fc00:bb00:3::1
bgp[1100]: [default-iowt]: fc00:bb00:3::1 send UPDATE length (incl. header) 126
bgp[1100]: [default-iowt]: Send message dump for fc00:bb00:3::1:
bgp[1100]: [default-iowt]: ffff ffff ffff ffff ffff ffff ffff ffff
bgp[1100]: [default-iowt]: 007e 0200 0000 6790 0e00 2600 0201 10fc
bgp[1100]: [default-iowt]: 00bb 0000 0100 0000 0000 0000 0000 0100
bgp[1100]: [default-iowt]: 80fc 00aa 0000 0100 0000 0000 0000 0000
bgp[1100]: [default-iowt]: 0140 0101 0040 0200 8004 0400 0000 0040
bgp[1100]: [default-iowt]: 0504 0000 0064 c028 2505 0022 0001 001e
bgp[1100]: [default-iowt]: 00fc 00bb 0000 01e0 0200 0000 0000 0000
bgp[1100]: [default-iowt]: 0000 003e 0001 0006 2010 1000 0000
bgp[1100]: [default-iowt]: bgp_io_nbr_add_version: New ver: nbr=fc00:bb00:3::1, io_wr_txsn=58992, acksn
bgp[1100]: [default-iowt]: bgp_io_nbr_derive_acked_version: nbr=fc00:bb00:3::1, io_wr_txsn=58992, acksn
bgp[1100]: [default-iowt]: fc00:bb00:3::1 (afi:4) advancedpeer_acked_version to 10refresh peer acked ve
bgp[1100]: [default-iowt]: fc00:bb00:3::1 (afi:5) received ack for version 27
bgp[1100]: [default-iowt]: bgp_write_list_tonet: IO_SENDMSG: nbr=fc00:bb00:3::1, fd=530: total=1, send-
bgp[1100]: [default-iowt] (ip6u): Deleting msg elem 0x0x7f4589e3afc8 (message 0x0x7f4589fd4ba4), for fi
bgp[1100]: [default-iowt] (ip6u): Deleting message 0x0x7f4589fd4ba4, from subgroup 0.1
bgp[1100]: [default-iowt]: Keepalive timer started for fc00:bb00:3::1(loc 10): last 529293 this 529308
bgp[1100]: [default-iowt]: bgp write for afi 4 for neighbor fc00:bb00:3::1 (fd 530)
bgp[1100]: [default-iowt]: bgp write for afi 5 for neighbor fc00:bb00:3::1 (fd 530)
bgp[1100]: [default-iowt]: bgp_io_nbr_derive_acked_version: nbr=fc00:bb00:3::1, io_wr_txsn=58992, acksn
bgp[1100]: [default-iowt]: fc00:bb00:3::1 (afi:4) advancedpeer_acked_version to 10refresh peer acked ve
bgp[1100]: [default-iowt]: fc00:bb00:3::1 (afi:5) advancedpeer_acked_version to 27refresh peer acked ve
bgp[1100]: [default-iowt]: bgp_io_write_nbr_ver_timer_process: nbr_ver_timer handler: Walk complete: nb

```

R1: BGP عبت لاخدا جاراخا الى ضرعي

```

default-bgp/spkr-tr2-upd 0/RSP0/CPU0 t32561 [UPD]:7799: trying to find update group for nbr fc00:bb00:3
default-bgp/spkr-tr2-upd 0/RSP0/CPU0 t32561 [UPD]:6752: created update group for table TBL:default (2/1
default-bgp/spkr-tr2-upd 0/RSP0/CPU0 t32561 [UPD]:2039: Filter-group op (Filter-group Rm Nbr) Tbl/Nbr(A
default-bgp/spkr-tr2-upd 0/RSP0/CPU0 t32561 [UPD]:1501: Filter-group op (Delete) Tbl/Nbr(TBL:default (2
default-bgp/spkr-tr2-upd 0/RSP0/CPU0 t32561 [UPD]:6798: Delete update group for table TBL:default (2/1)
default-bgp/spkr-tr2-upd 0/RSP0/CPU0 t32561 [UPD]:2181: Filter-group op (Filter-group Compute Nbr RT) T
default-bgp/spkr-tr2-upd 0/RSP0/CPU0 t32561 [UPD]:1411: Filter-group op (Alloc) Tbl/Nbr(TBL:default (2/
default-bgp/spkr-tr2-upd 0/RSP0/CPU0 t32561 [UPD]:2725: Filter-group op (Filter-group Add Nbr new) Tbl/
default-bgp/spkr-tr2-upd 0/RSP0/CPU0 t32561 [UPD]:2751: created filtergrp 3 for vrf default nbr fc00:bb
default-bgp/spkr-tr2-upd 0/RSP0/CPU0 t32561 [UPD]:4473: Created subgrp:1(0x840070a0) refr:0 for nbr fc0
default-bgp/spkr-tr2-upd 0/RSP0/CPU0 t32561 [UPD]:6935: added vrf default nbr fc00:bb00:3::1 to update
default-bgp/spkr-tr2-upd 0/RSP0/CPU0 t32561 [UPD]:3088: TBL:default (2/1) free subgrp SG:2 subgrp:0x840
default-bgp/spkr-tr2-upd 0/RSP0/CPU0 t32561 [UPD]:1316: Update gen Start bit operation Filtergrp delete
default-bgp/spkr-tr2-upd 0/RSP0/CPU0 t32561 [UPD]:11342: Updgen - TBL:default (2/1) UG: 0.3 SG: 0.1 msg
default-bgp/spkr-tr2-upd 0/RSP0/CPU0 t32561 [UPD]:11344: Updgen - pfx: [tot] adv/wdn/sup/skp/be[2] 1/0
default-bgp/spkr-tr2-upd 0/RSP0/CPU0 t32561 [UPD]:11351: Updgen - fpx: wdn/skp[0/0] ver: 0 -> 27 res ve
default-bgp/spkr-tr2-upd 0/RSP0/CPU0 t32561 [UPD]:4009: Updgen - UG: 3 FG: 3 afi:5 msg: 1 ver -> 27
default-bgp/spkr-tr2-upd 0/RSP0/CPU0 t32561 [UPD]:4011: pfx: adv/wdn/sup/skp 1/0/0/1
default-bgp/spkr-tr2-common 0/RSP0/CPU0 t32558 [COMMON]:638: vrf default nbr fc00:bb00:3::1, set peer a
default-bgp/spkr-tr2-gen 0/RSP0/CPU0 t32501 [GEN]:617: vrf default nbr 2000:0:0:1::1, old state 1, new

```

يوتحت يتلاو، 5 عون ال TLV و 40 ةمسلا عون اهزيمرت ك ف مت يتلا BGP ثيدحت ةلاسرهظت
يوتحت يتلاو، 5 عون ال TLV و 40 ةمسلا عون اهزيمرت ك ف مت يتلا BGP ثيدحت ةلاسرهظت
يوتحت يتلاو، 5 عون ال TLV و 40 ةمسلا عون اهزيمرت ك ف مت يتلا BGP ثيدحت ةلاسرهظت

Attribute

```
ATTRIBUTE FLAG:      0xC0
ATTRIBUTE FLAG binary: 11000000
    Bit 0, the Optional bit, is 1 so this is an optional attribute
    Bit 1, the Transitive bit, is 1 so this is a transitive attribute
    Bit 2, the Partial bit, is not set
    Bit 3, the Extended Length Bit, is 0 so the length field is 1 byte
    The lower-order four bits of the Attribute Flag are unused and are set to 0000

ATTRIBUTE TYPE:      0x28      - 40
ATTRIBUTE LENGTH:    0x25      - 37 bytes
ATTRIBUTE CONTENT:    0x0500220001001E00FC00BB000001E0020000000000000000003E00010006201010000000

    BGP Prefix-SID:
    Type:             5 (0x05) - SRv6 L3 Service
    Length:            34 - 0x0022
    Value:             0x0001001E00FC00BB000001E0020000000000000000003E00010006201010000000
    Reserved:          0x00
    Sub Type:          1 (0x01)
    Sub Length:        30 (0x001E)
    SRv6 SID = FC00:BB00:0001:E002:0000:0000:0000:0000
    SID Flags:          0 (0x00)
    Endpoint Behavior: 62 (0x003E)
    Reserved2 :         0 (0x00)
    SRv6 SID Optional Type: 1 (0x01)
    SRv6 SID Optional Len: 6 (0x0006)
    SRv6 SID Optional Value: 35253360001024 (0x201010000000)
```

يولي امك اهزيمرت ك ف مت يتلا ةلمالك ال BGP ثيدحت ةلاسرنوكت

Message #1 - 126 bytes

```
FF FF FF FF  FF FF FF FF  FF FF FF FF  FF FF FF FF
00 7E 02 00  00 00 67 90  0E 00 26 00  02 01 10 FC
00 BB 00 00  01 00 00 00  00 00 00 00  00 00 01 00
80 FC 00 AA  00 00 01 00  00 00 00 00  00 00 00 00
01 40 01 01  00 40 02 00  80 04 04 00  00 00 00 40
05 04 00 00  00 64 C0 28  25 05 00 22  00 01 00 1E
00 FC 00 BB  00 00 01 E0  02 00 00 00  00 00 00 00
00 00 00 3E  00 01 00 06  20 10 10 00  00 00
```

```
BGP Marker:      0xFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF
BGP Length:      0x007E      - 126 bytes
BGP Type:        0x02      - UPDATE
```

```
UPDATE
UNFEASIBLE ROUTES LENGTH:      0x0000      - 0 bytes
TOTAL PATH ATTRIBUTES LENGTH:  0x0067      - 103 bytes
```

Attribute

```
ATTRIBUTE FLAG:      0x90
ATTRIBUTE FLAG binary: 10010000
```


Bit 1, the Transitive bit, is 0 so this is a non-transitive attribute
Bit 2, the Partial bit, is not set
Bit 3, the Extended Length Bit, is 0 so the length field is 1 byte
The lower-order four bits of the Attribute Flag are unused and are set to 0000

ATTRIBUTE TYPE: 0x04 - 4
ATTRIBUTE LENGTH: 0x04 - 4 bytes
ATTRIBUTE CONTENT: 0x00000000 - 0

Attribute

ATTRIBUTE FLAG: 0x40
ATTRIBUTE FLAG binary: 01000000
Bit 0, the Optional bit, is 0 so this is a well-known attribute
Bit 1, the Transitive bit, is 1 so this is a transitive attribute
Bit 2, the Partial bit, is not set
Bit 3, the Extended Length Bit, is 0 so the length field is 1 byte
The lower-order four bits of the Attribute Flag are unused and are set to 0000

ATTRIBUTE TYPE: 0x05 - 5
ATTRIBUTE LENGTH: 0x04 - 4 bytes
ATTRIBUTE CONTENT: 0x00000064 - 100

Attribute

ATTRIBUTE FLAG: 0xC0
ATTRIBUTE FLAG binary: 11000000
Bit 0, the Optional bit, is 1 so this is an optional attribute
Bit 1, the Transitive bit, is 1 so this is a transitive attribute
Bit 2, the Partial bit, is not set
Bit 3, the Extended Length Bit, is 0 so the length field is 1 byte
The lower-order four bits of the Attribute Flag are unused and are set to 0000

ATTRIBUTE TYPE: 0x28 - 40
ATTRIBUTE LENGTH: 0x25 - 37 bytes
ATTRIBUTE CONTENT: 0x0500220001001E00FC00BB000001E00200000000000000000003E00010006201010000000

BGP Prefix-SID:

Type: 5 (0x05) - SRv6 L3 Service
Length: 34 - 0x0022
Value: 0x0001001E00FC00BB000001E00200000000000000000003E00010006201010000000
Reserved: 0x00
Sub Type: 1 (0x01)
Sub Length: 30 (0x001E)
SRv6 SID = FC00:BB00:0001:E002:0000:0000:0000:0000
SID Flags: 0 (0x00)
Endpoint Behavior: 62 (0x003E)
Reserved2 : 0 (0x00)
SRv6 SID Optional Type: 1 (0x01)
SRv6 SID Optional Len: 6 (0x0006)
SRv6 SID Optional Value: 35253360001024 (0x201010000000)

NLRI

NLRI LENGTH: UPDATE Length - 23 - TOTAL PATH ATTRIBUTES LENGTH - UNFEASIBLE ROUTES LENGTH

NLRI LENGTH: 126 - 23 - 103 - 0
NLRI LENGTH: 0 bytes

3. دإخال ثبلل BGP IPv6 لودج ف هتبثو BGP ثي دحت R3 ىقلى

BGP ءاطخأ حىحصت نىكم تب هتطحالم نكمى يذلاو، R1 نم BGP ثي دحت R3 هچومل ملتسى
ةطساوب اهلل سرامت يتلل كلى عم ةملى سمل BGP ثي دحت ةمزح قباطت نأ بجى R3. ىل
ءاطخال حىحصت جارخا ف حضوم وه امك R1.

```
bgp[1100]: [default-rtr]: UPDATE from fc00:bb00:1::1 contains nh fc00:bb00:1::1/128, gw_afi 5, flags 0x0
bgp[1100]: [default-rtr]: NH-Validate-Create: addr=fc00:bb00:1::1/128, len=16, nlrifi=5, nbr=fc00:bb00:1::1/128
bgp[1100]: [default-rtr]: --bgp4_rcv_attributes--: END: nbr=fc00:bb00:1::1: msg=0x0x7fc420108bdc/126, len=16
bgp[1100]: [default-rtr]: Comm-lib: Assigned ID (0x1d0000ac) for elem-type PREFIX_SID SRV6_L3SVC
bgp[1100]: [default-rtr]: Comm-lib: Assigned ID (0x900000de) for elem-type Attribute
bgp[1100]: [default-rtr] (ip6u): Received UPDATE from fc00:bb00:1::1 with attributes:
bgp[1100]: [default-rtr] (ip6u): nexthop fc00:bb00:1::1/128, origin i, localpref 100, metric 0
bgp[1100]: [default-rtr] (ip6u): Received prefix fc00:aa00:1::1/128 (path ID: none) from fc00:bb00:1::1
bgp[1100]: [default-rtr] (ip6u): Handling OCRIB attrs while relacing path 0x7fc3e1be61d8. Old oc attr (0x7fc3e1be61d8)
bgp[1100]: [default-rtr]: bgp_bmp_table_path_update_cb: Operation: 0x1, Inbound Post-Policy Route Mon i
bgp[1100]: [default-rtr] (ip6u): Done modify path (old tlv size=0 new tlv size=0) for net=fc00:aa00:1::1/128
bgp[1100]: [default-rtr]: bgp_set_path_metric:8712 afi 5 net fc00:aa00:1::1/128 path 0x7fc3e1be61d8 nh fc00:bb00:1::1
bgp[1100]: [default-rtr] (ip6u): bestpath: (full bp 1) start for net=fc00:aa00:1::1/128, nver=2000371, nfl=0x00000000
bgp[1100]: [default-rtr] (ip6u): bestpath: (full 1) calculated for net=fc00:aa00:1::1/128, nver=2000371, nfl=0x00000000
bgp[1100]: [default-rtr] (ip6u): bestpath: change for net=fc00:aa00:1::1/128, nver=2000371, nfl=0x00000000
bgp[1100]: [default-rtr] (ip6u): bestpath: update flags for net=fc00:aa00:1::1/128, nver=2000371, nfl=0x00000000
bgp[1100]: [default-rtr] (ip6u): bestpath: modified path: net=fc00:aa00:1::1/128, nver=2000371, nfl=0x00000000
bgp[1100]: [default-rtr] (ip6u): bgp_srv6_get_alloc_mode_locator_from_policy: Use default SRv6 alloc mode
bgp[1100]: [default-rtr] (ip6u): bestpath: complete for net=fc00:aa00:1::1/128, nver=2000371, nfl=0x00000000
bgp[1100]: [default-rtr]: Received UPDATE from fc00:bb00:1::1 (length incl. header = 126)
bgp[1100]: [default-rtr]: Receive message dump for fc00:bb00:1::1:
bgp[1100]: [default-rtr]: ffff ffff ffff ffff ffff ffff ffff ffff
bgp[1100]: [default-rtr]: 007e 0200 0000 6790 0e00 2600 0201 10fc
bgp[1100]: [default-rtr]: 00bb 0000 0100 0000 0000 0000 0000 0100
bgp[1100]: [default-rtr]: 80fc 00aa 0000 0100 0000 0000 0000 0000
bgp[1100]: [default-rtr]: 0140 0101 0040 0200 8004 0400 0000 0040
bgp[1100]: [default-rtr]: 0504 0000 0064 c028 2505 0022 0001 001e
bgp[1100]: [default-rtr]: 00fc 00bb 0000 01e0 0200 0000 0000 0000
bgp[1100]: [default-rtr]: 0000 003e 0001 0006 2010 1000 0000
bgp[1100]: [default-rtr]: Enabling read from: fc00:bb00:1::1 readset: 1 msgcount: 0
bgp[1100]: [default-iowt]: bgp write for afi 4 for neighbor fc00:bb00:1::1 (fd 516)
bgp[1100]: [default-iowt]: bgp write for afi 5 for neighbor fc00:bb00:1::1 (fd 516)
bgp[1100]: [default-imp] (ip6u): START import walk from 2000371 to 2000372 skip_walk 1
bgp[1100]: [default-rib2] (ip6u): RIB thread triggered for versioned walk: current version 2000371, ack 2000372
bgp[1100]: [default-rib2] (ip6u): RNH rib opaque update for (IPv6 Unicast)
bgp[1100]: [default-rib2] (ip6u): RIB thread triggered for RNH walk for nh table(IPv6 Unicast): current version 2000371, target version 2000372
bgp[1100]: [default-lbl] (ip6u): Label update triggered: current version 2000371, target version 2000372
bgp[1100]: [default-lbl]: Table: TBL:default (2/1) bgp_label_srv6_sid_config_release: label_sid_need_ev
bgp[1100]: [default-lbl]: uSID WLIB allocation is (LIB Default)
bgp[1100]: [default-lbl]: Table: TBL:default (2/1) bgp_label_thread_walk_type: rd:0x7fc3e1efbf30(ALLzer
bgp[1100]: [default-lbl] (ip6u): rd:0x7fc3e1efbf30 sid_walk:1 label_walk:0
bgp[1100]: [default-lbl]: uSID WLIB allocation is (LIB Default)
bgp[1100]: [default-upd] (vpn4u): Started updgrp timer for updgrp 0.1:: delay=0.010, delaytype=0
bgp[1100]: [default-lbl] (ip6u): SRv6 SID process for net: TBL:default (2/1)fc00:aa00:1::1/128(SID N) e
bgp[1100]: [default-lbl] (ip6u): SRv6 SID process for net: TBL:default (2/1)fc00:aa00:1::1/128 point 1
bgp[1100]: [default-lbl]: uSID WLIB allocation is (LIB Default)
bgp[1100]: [default-lbl] (ip6u): Label update run from 2000371 target label version 2000372, rib version 2000371
```

```

bgp[1100]: [default-lbl] (ip6u): Wake up rib thread, label version 2000372, rib version 2000371, bgp table
bgp[1100]: [default-rib2] (ip6u): RIB thread triggered for versioned walk: current version 2000371, ack
bgp[1100]: [default-rib2] (ip6u): RNH rib opaque update for (IPv6 Unicast)
bgp[1100]: [default-rib2] (ip6u): RIB thread triggered for RNH walk for nh table(IPv6 Unicast): current
bgp[1100]: [default-rib2] (ip6u): Rib Batch-buf Route ADD: table=TBL:default (2/1), tableid=0xe0800000,
bgp[1100]: [default-rib2] (ip6u): Revise route batch: installing fc00:aa00:1::1/128 with next hop fc00:
bgp[1100]: [default-rib2] (ip6u): [0]: Rib Batch-buf Path ADD: table=TBL:default (2/1), net=fc00:aa00:1
bgp[1100]: [default-rib2] (ip6u): Sending convergence info for IPv6 Unicast - not converged, version: 0
bgp[1100]: [default-upd] (ip6u): Started updgrp timer for updgrp 0.1:: delay=0.010, delaytype=0
bgp[1100]: [default-rib2] (ip6u): vrf default: RIB update run to 2000372: installed 0, modified 1, skip
bgp[1100]: [default-rib2] (ip6u): RIB thread finished versioned walk: table version 2000372, acked tabl
bgp[1100]: [default-upd] (vpn4u): Starting updgen walk for updgrp 0.1:: targetver=463: tblver=463, lab
bgp[1100]: [default-upd] (ip6u): Starting updgen walk for updgrp 0.1:: targetver=2000372: tblver=20003
bgp[1100]: [default-upd] (ip6u): Computing updates for update sub-group 0.1 (Regular)
bgp[1100]: [default-upd] (ip6u): bgp_srv6_execute_sid_alloc_mode_policy: Use default SRv6 alloc mode pe
bgp[1100]: [default-upd]: table-attr walk for table TBL:default (2/1), resume version 0, subgrp version
bgp[1100]: [default-upd] (ip6u): process UPDATE for: tbl=TBL:default (2/1), afi=5: ug=0.1, (Regular), p
bgp[1100]: [default-upd] (ip6u): No unreachable (not advertising to sender: fc00:bb00:1::1) sent to sub

```

هنا نتحدث عن R1، ثم نحدث الجدول العام عمقاً بـ BGP عتبة 3 R3 هجوماً موقياً
 إلى يوتيبي، ثم نحدث الجدول هذه نمتضتي. ثبلاً يداخاً BGP IPv6 لودج R3 ثبتي هاهنا في
 ثبلاً BGP IPv6 ثبتي إلى إفاضاً إلى أب عملاً سمل الـ SIDs ثبتي 40 مقرر BGP عمس عون
 R1. نمداخاً

```

RP/0/RSP0/CPU0:R3#show bgp trace
default-bgp/spkr-tr2-imp 0/RSP0/CPU0 t16100 [IMPORT]:6661: Skipping Import walk: import ver 2000371 ->
default-bgp/spkr-tr2-rib 0/RSP0/CPU0 t30391 [RIB]:17177: RIB walk for afi IPv6 Unicast: target version
default-bgp/spkr-tr2-label 0/RSP0/CPU0 t16061 [LABEL]:8505: label walk afi:IPv6 Unicast, lbl ver 200037
default-bgp/spkr-tr2-label 0/RSP0/CPU0 t16061 [LABEL]:8510: label walk afi:IPv6 Unicast, lbl ver 200037
default-bgp/spkr-tr2-rib 0/RSP0/CPU0 t30391 [RIB]:17177: RIB walk for afi IPv6 Unicast: target version
default-bgp/spkr-tr2-rib 0/RSP0/CPU0 t30391 [RIB]:14681: send converge to RIB, afi IPv6 Unicast, tablei
default-bgp/spkr-tr2-rib 0/RSP0/CPU0 t30391 [RIB]:15892: RIB(default:v6u): ver 2000371 -> 2000372 :pfx
default-bgp/spkr-tr2-upd 0/RSP0/CPU0 t16101 [UPD]:11342: Updgen - TBL:default (2/1) UG: 0.1 SG: 0.1 msg
default-bgp/spkr-tr2-upd 0/RSP0/CPU0 t16101 [UPD]:11344: Updgen - pfx: [tot] adv/wdn/sup/skp/be[1] 0/0
default-bgp/spkr-tr2-upd 0/RSP0/CPU0 t16101 [UPD]:11351: Updgen - fpx: wdn/skp[0/0] ver: 2000371 -> 200
default-bgp/spkr-tr2-common 0/RSP0/CPU0 t16101 [COMMON]:3628: vrf default nbr fc00:bb00:1::1, set peer
default-bgp/spkr-tr2-upd 0/RSP0/CPU0 t16101 [UPD]:11663: Updgen - Skip EoR for Tbl:(TBL:default (2/1))

```

<#root>

RP/0/RSP0/CPU0:R3#

show bgp ipv6 unicast received-sids

```

BGP router identifier 10.0.0.3, local AS number 1
BGP generic scan interval 60 secs
Non-stop routing is enabled
BGP table state: Active
Table ID: 0xe0800000 RD version: 46
BGP table nexthop route policy:
BGP main routing table version 46
BGP NSR Initial initsync version 6 (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                                Received Sid
*>ifc00:aa00:1::1/128  fc00:bb00:1::1

```

```
*> fc00:aa00:3::3/128 :: NO SRv6 Sid
```

4. RIB و FIB بی کُرت R3

<#root>

```
show route ipv6 fc00:aa00:1::1/128 detail
```

SRv6 Headend: H.Encaps.Red [f3216], SID-list {fc00:bb00:1:e002::}

```

Route version is 0x1f (31)
No local label
IP Precedence: Not Set
QoS Group ID: Not Set
Flow-tag: Not Set
Fwd-class: Not Set
Route Priority: RIB_PRIORITY_RECURSIVE (12) SVD Type RIB_SVD_TYPE_LOCAL
Download Priority 4, Download Version 166
No advertising protos.

```

RP/0/RSP0/CPU0:R3#

show cef ipv6 fc00:aa00:1::1/128

fc00:aa00:1::1/128, version 166,

SRv6 Headend

, internal 0x5000001 0x40 (ptr 0x7941f0f4) [1], 0x0 (0x0), 0x0 (0x7ad58368)
Updated Jun 8 17:52:31.551
Prefix Len 128, traffic index 0, precedence n/a, priority 4
gateway array (0x78eac428) reference count 1, flags 0x2010, source rib (7), 0 backups
[1 type 3 flags 0x48441 (0x78f4f4d8) ext 0x0 (0x0)]
LW-LDI[type=0, refc=0, ptr=0x0, sh-ldi=0x0]
gateway array update type-time 1 Jun 8 17:52:31.551
LDI Update time Jun 8 17:52:31.551

Level 1 - Load distribution: 0
[0] via fc00:bb00:1::/128, recursive

Accounting: Disabled

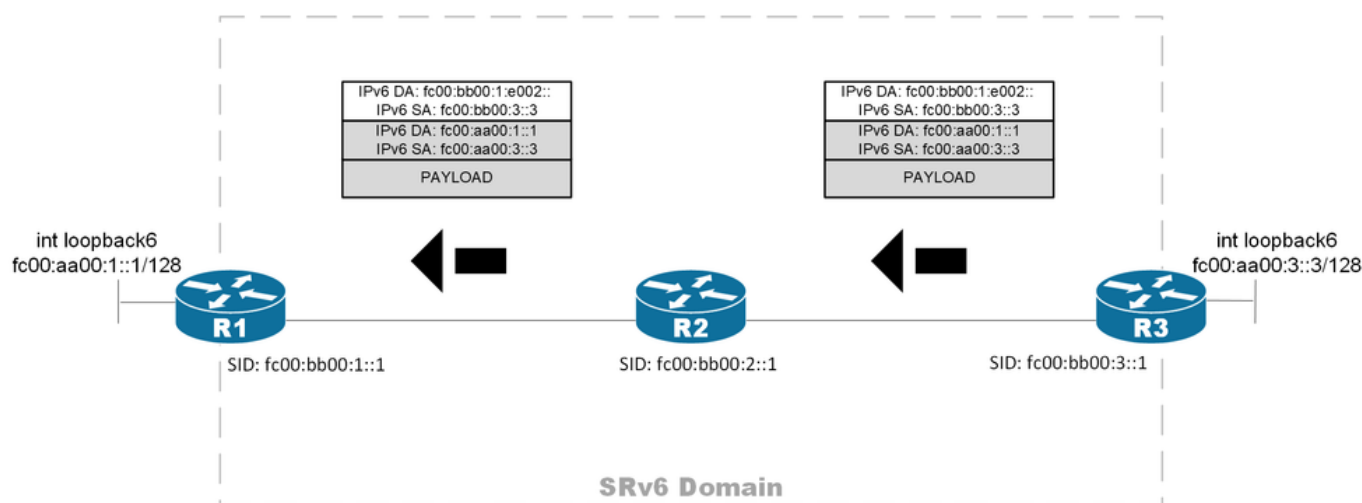
via fc00:bb00:1::/128, 5 dependencies, recursive [flags 0x6000]
path-idx 0 NHID 0x0 [0x7941edb4 0x0]
next hop fc00:bb00:1::/128 via fc00:bb00:1::/48

SRv6 H.Encaps.Red SID-list {fc00:bb00:1:e002::}

Load distribution: 0 (refcount 1)

Hash	OK	Interface	Address
0	Y	TenGigE0/0/0/1	remote

R1 لاصتال رابتخا R3 (fc00:aa00:3::3) هجومال موقى امدنع ةمزلال قىسنت ضرعى 4 لكشلال (fc00:aa00:1::1).



SRv6 ربع IPv6 BGP يداخال ثبل راسم ربع ةمزلال ةجالع 4. لكشلال

ةمچرتل هذه ل و ح

ةيلآل ا تاي ن ق ت ل ا ن م ة و م ج م ا د خ ت س ا ب د ن ت س م ل ا ا ذ ه Cisco ت م چ ر ت م ل ا ع ل ا ا ح ن ا ع م ج ي ف ن ي م د خ ت س م ل ل م ع د ي و ت ح م م ي د ق ت ل ة ي ر ش ب ل ا و ا م ك ة ق ي ق د ن و ك ت ن ل ة ي ل آ ة م چ ر ت ل ض ف ا ن ا ة ط ح ا ل م ي ج ر ي . ة ص ا خ ل ا م ه ت غ ل ب Cisco ي ل خ ت . ف ر ت ح م م چ ر ت م ا ه م د ق ي ي ت ل ا ة ي ف ا ر ت ح ا ل ا ة م چ ر ت ل ا ع م ل ا ح ل ا و ه ي ل ا ا م ا د ع و ج ر ل ا ب ي ص و ت و ت ا م چ ر ت ل ا ه ذ ه ة ق د ن ع ا ه ت ي ل و ئ س م Systems (ر ف و ت م ط ب ا ر ل ا) ي ل ص ا ل ا ي ز ي ل ج ن ا ل ا د ن ت س م ل ا