



APAC Cohesion Automated WAN Solutions (AWAN)

Tech Roundup Q2-2024

ジュニパーネットワークス株式会社

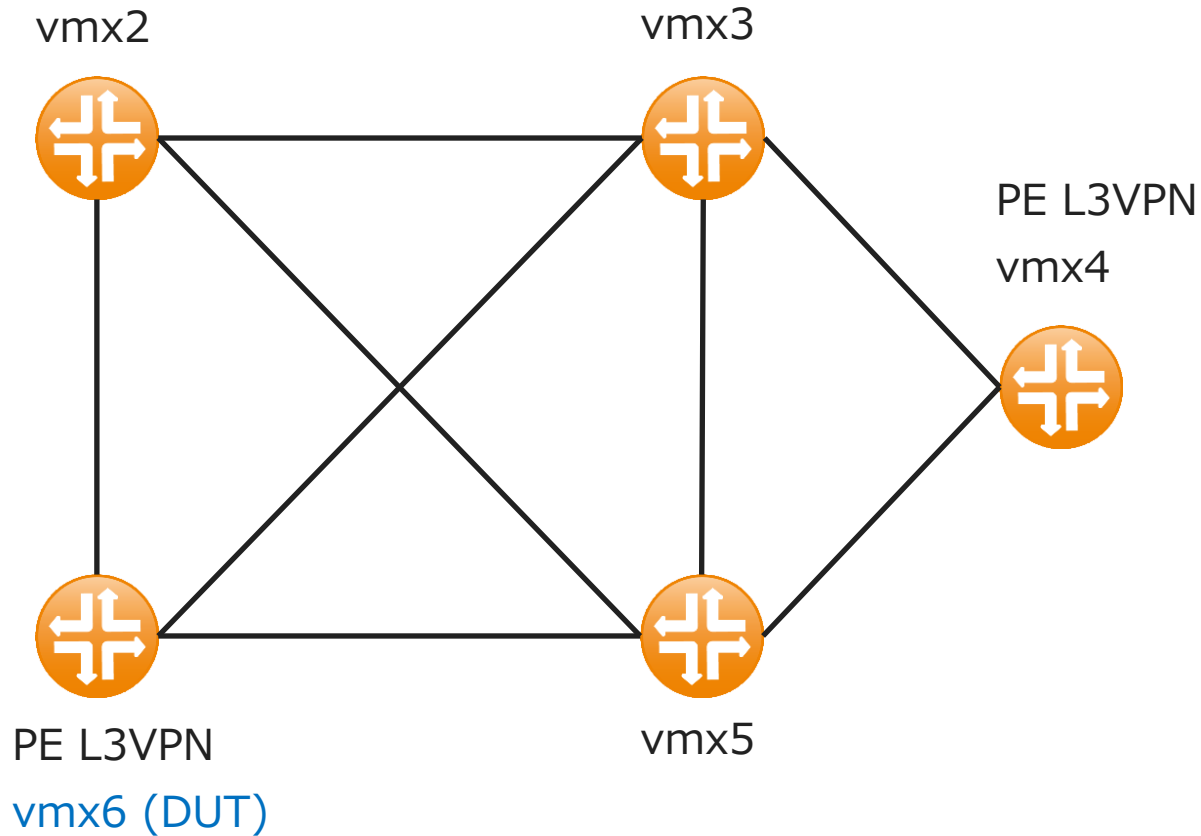
免責事項

この製品の方向性に関する声明は、ジュニパーネットワークスの現在の意図を示すものであり、予告なしにいつでも変更されることがあります。ジュニパーネットワークスが本ステートメントに記載された特徴や機能を提供することを条件として、購入することはできません。



L3VPN 用 SRv6

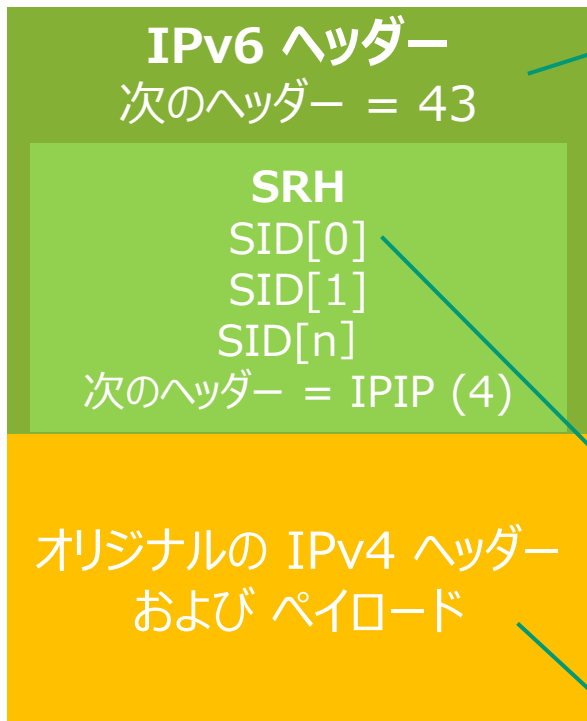
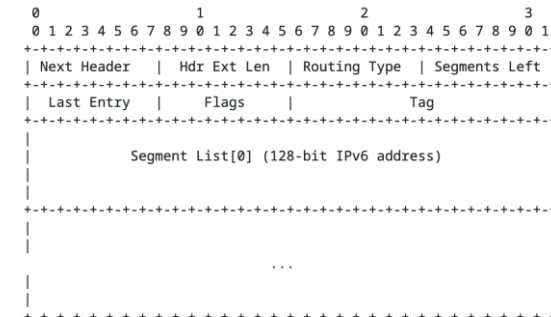
デモ トポロジー



- JUNOS 23.4R1
- ISIS L2、IPv6 アンダーレイ
- vmx6 / vmx4 間 L3VPN
- **デモ1 : Full SID (従来型) と uSID 使用 SRv6-TE**
- **デモ2 : Full SID (従来型) と uSID 使用 L3VPN**

SRv6 ヘッダーおよび、カプセル化

RFC8754



```

> Frame 1: 210 bytes on wire (1680 bits), 210 bytes captured (1680 bits)
> Ethernet II, Src: VMware_be:23:f6 (00:50:56:be:23:f6), Dst: VMware_be:a1:eb (00:50:56:be:a1:eb)
< IPv6 Internet Protocol Version 6, Src: 2001:db8:1::4, Dst: 2001:db8:0:a2::1112
    0110 .... = Version: 6
    > .... 0000 0000 .... = Traffic Class: 0x00 (DSCP: CS0, ECN: Not-ECT)
    .... 0001 0111 0000 1111 0100 = Flow Label: 0x170f4
    Payload Length: 156
    Next Header: Routing Header for IPv6 (43)
    Hop Limit: 252
    Source Address: 2001:db8:1::4
    Destination Address: 2001:db8:0:a2::1112
< Routing Header for IPv6 (Segment Routing)
    Next Header: IPIP (4)
    Length: 8
    [Length: 72 bytes]
    Type: Segment Routing (4)
    Segments Left: 0
    Last Entry: 3
    Flags: 0x00
    Tag: 0000
    Address[0]: 2001:db8:0:a2::1112
    Address[1]: 2001:db8:0:a3::1113
    Address[2]: 2001:db8:0:a6::63
    Address[3]: 2001:db8:0:a5::56
    > Internet Protocol Version 4, Src: 1.1.1.4, Dst: 192.0.2.1
    > Internet Control Message Protocol
  
```

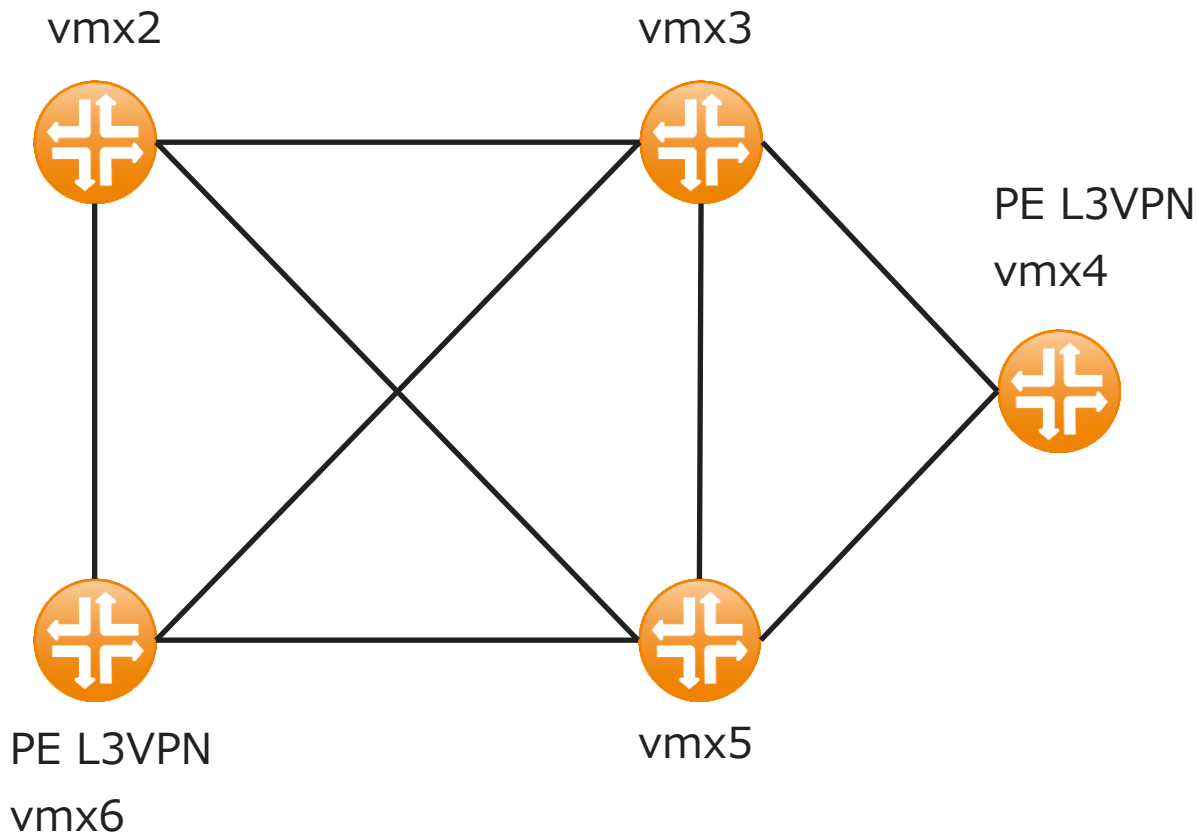
40バイト

IPv6
ヘッダー

SRH

SIDs

トポロジー (Full SID 構造)



関数長 = 32 (デフォルト 16)

2001:db8:0:AAAA:BBBB:CCCC:DDDD:EEEE

ローケーター長 (デフォルト 64)
(ブロック長 + ノード長)

引数 = 32

vmx2 END = 2001:db8:0:a2:1112::

vmx3 END = 2001:db8:0:a3:1113::

vmx4 END = 2001:db8:0:a4:1114::

vmx5 END = 2001:db8:0:a5:1115::

vmx6 END = 2001:db8:0:a6:1116::

L3VPN :

vmx4 END.DT4 = 2001:db8:0:a4:4444::

vmx6 END.DT4 = 2001:db8:0:a6:4444::

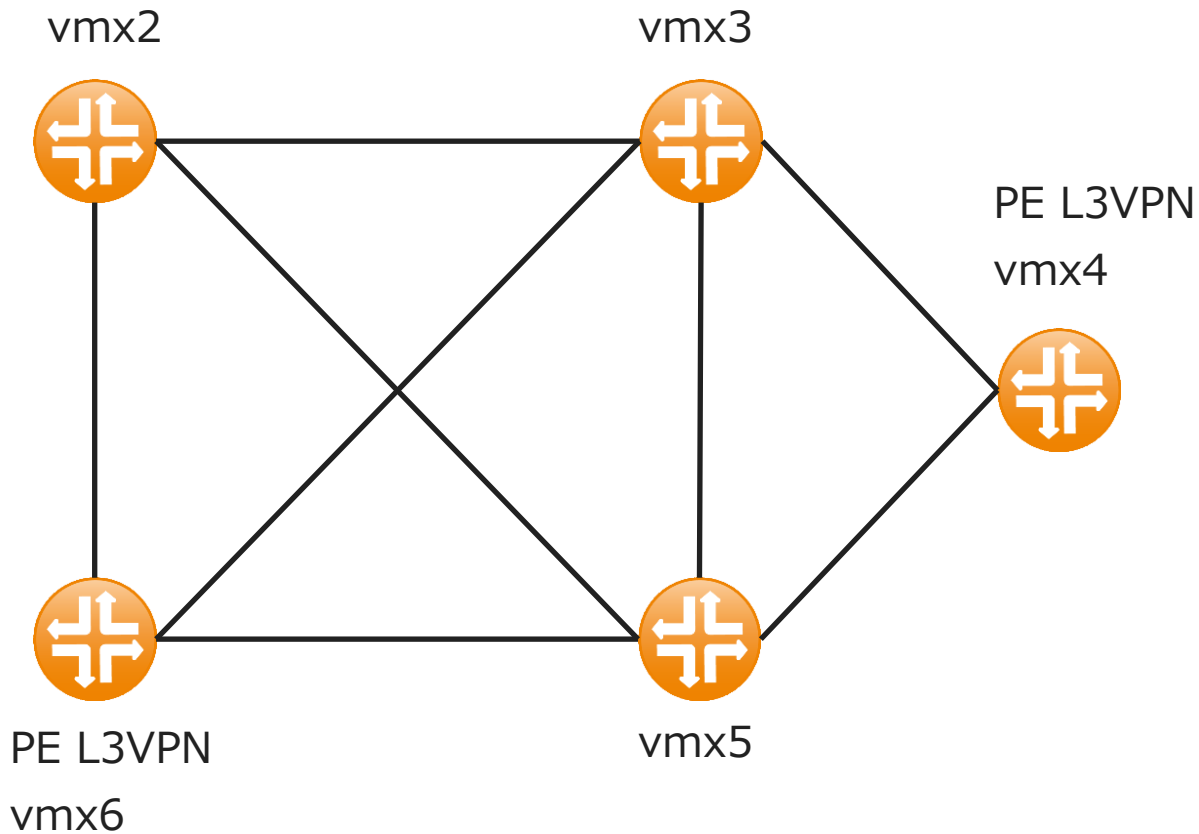
Full SID を使用した SRv6 の問題点 :

- (1) 各セグメント SID が 128ビットの IPv6 アドレスを使用するため、膨大なオーバーヘッドが発生
- (2) ヘッダー処理の負荷

解決策 :

uSID による SID 圧縮において、標準 IPv6 アドレスに 6x のマイクロ指令 (ファンクション) を搭載

トポロジー (uSID 構造)



関数長 (デフォルト 16)

1111:2222:nnnn:aaaa:bbbb:cccc:dddd:eeee

ブロック長 (32) ノードの長さ (16)

ロケータ長 (48)

vmx4 uN = 1111:2222:4444::
 vmx5 uN = 1111:2222:5555::
 vmx6 uN = 1111:2222:6666::

L3VPN :
 vmx4 uDT4 = 1111:2222:4444:f444::
 vmx6 uDT4 = 1111:2222:6666:f444::

圧縮後の uSID 使用トラフィックエンジニアリングパス :

1111:2222:6666:3333:5555:4444::



SRv6-TE

SRv6-TE (Full SID)

- SRH 処理 (左セグメント ≥ 1)
- (1) セグメントを左から 1つ減らす
 - (2) 次のセグメントで IPv6 DA の書き換え
 - (3) ルートルックアップと転送

40バイト
ヘッダ-

各 SID は
128 ビット

IPv6
SA=2001:db8:1::6
DA= 2001:db8:0:a2:1112::

SRH
セグメント左 = 2
SID[0] 2001:db8:0:a4:1114::
SID[1] 2001:db8:0:a3:1113::
SID[2] 2001:db8:0:a2:1112::

IP データ

IPv6
SA=2001:db8:1::6
DA= 2001:db8:0:a3:1113::

SRH
セグメント左 = 1
SID[0] 2001:db8:0:a4:1114::
SID[1] 2001:db8:0:a3:1113::
SID[2] 2001:db8:0:a2:1112::

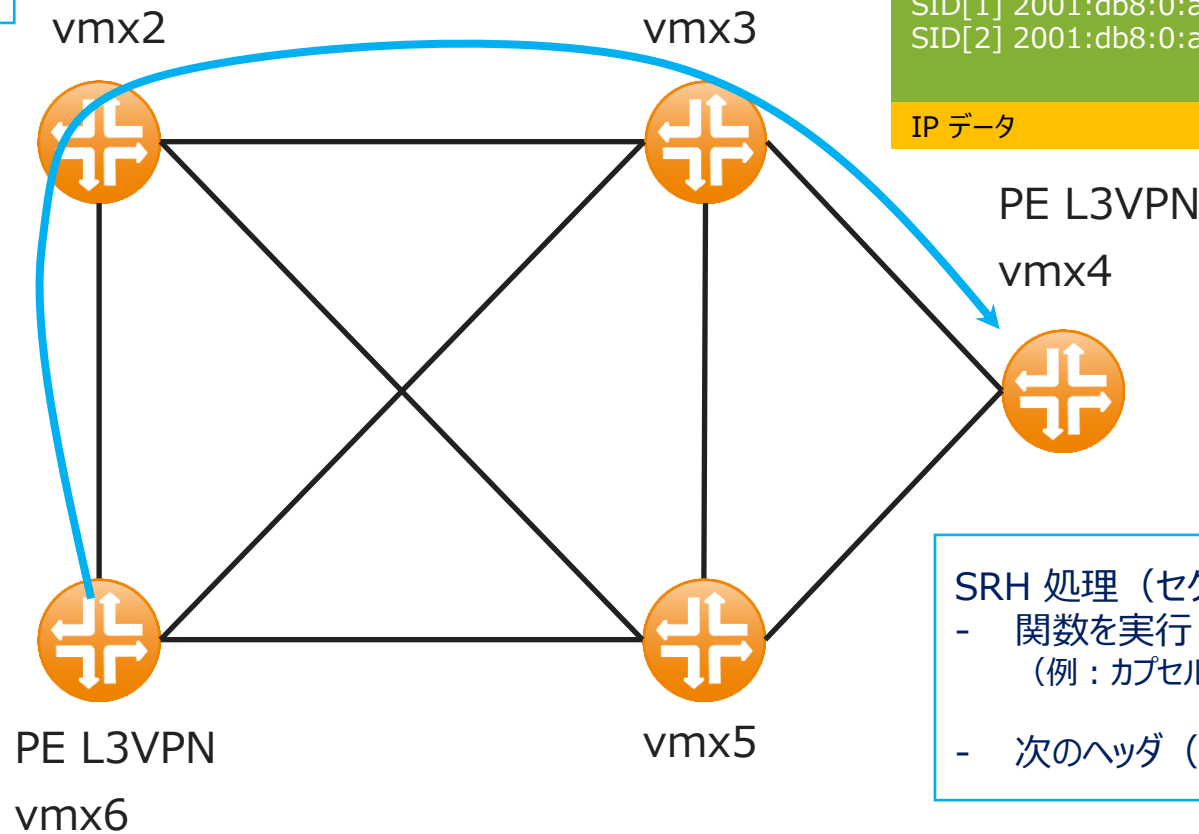
IP データ

vmx2 END = 2001:db8:0:a2:1112::
vmx3 END = 2001:db8:0:a3:1113::
vmx4 END = 2001:db8:0:a4:1114::

IPv6
SA=2001:db8:1::6
DA= 2001:db8:0:a4:1114::

SRH
セグメント左 = 0
SID[0] 2001:db8:0:a4::1114::
SID[1] 2001:db8:0:a3::1113::
SID[2] 2001:db8:0:a2::1112::

IP データ



SRH 処理 (セグメント左=0)

- 関数を実行
(例: カプセル化解除と VPN テーブル ルックアップ)
- 次のヘッダ (IP データ) を処理

SRv6-TE (uSID)

vmx4 uN = 1111:2222:4444::
 vmx5 uN = 1111:2222:5555::
 vmx6 uN = 1111:2222:6666::

uSID シフト&ルックアップ
 (1) 独自の uSID をポップ (例 : 3333)
 (2) 残りの DA を 16ビット左にシフト
 (3) 新しい DA をルックアップして転送

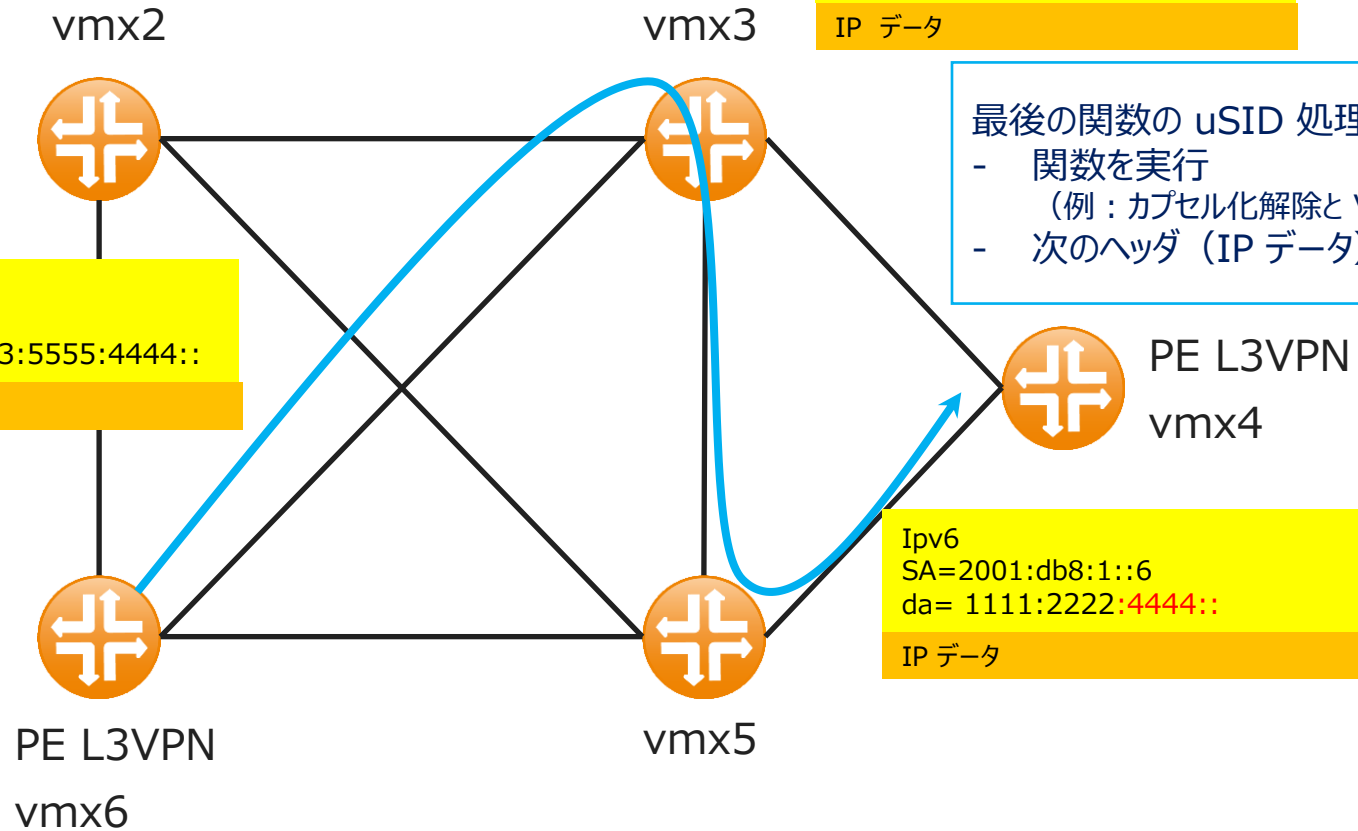
IPv6
 SA=2001:db8:1::6
 da= 1111:2222:5555:4444::
 IP データ

最後の関数の uSID 処理
 - 関数を実行
 (例 : カプセル化解除と VPN テーブル ルックアップ)
 - 次のヘッダ (IP データ) を処理

40バイト
ヘッダ

IPv6
 SA=2001:db8:1::6
 da= 1111:2222:3333:5555:4444::
 IP データ

IPv6
 SA=2001:db8:1::6
 da= 1111:2222:4444::
 IP データ



SRv6-TE コンフィグ

SRv6 は Full SID を使用

```
set protocols source-packet-routing segment-list srv6-6-4 srv6
set protocols source-packet-routing source-routing-path srv6-6-4 srv6
set protocols source-packet-routing source-routing-path srv6-6-4 to 2001:db8:0:a4::
set protocols source-packet-routing source-routing-path srv6-6-4 from 2001:db8:1::6
set protocols source-packet-routing source-routing-path srv6-6-4 primary srv6-6-4
set protocols source-packet-routing segment-list srv6-6-4 segment1 srv6-sid 2001:db8:0:a2:1112::
set protocols source-packet-routing segment-list srv6-6-4 segment2 srv6-sid 2001:db8:0:a3:1113::
set protocols source-packet-routing segment-list srv6-6-4 segment3 srv6-sid 2001:db8:0:a4:1114::
```

Full SID

SRv6 は uSID を使用

```
set protocols source-packet-routing source-routing-path 6-4-usid srv6
set protocols source-packet-routing source-routing-path 6-4-usid to 1111:2222:4444::
set protocols source-packet-routing source-routing-path 6-4-usid primary 6-4-usid
set protocols source-packet-routing segment-list 6-4-usid srv6
set protocols source-packet-routing segment-list 6-4-usid hop1 micro-srv6-sid 1111:2222:3333::
set protocols source-packet-routing segment-list 6-4-usid hop2 micro-srv6-sid 1111:2222:5555::
set protocols source-packet-routing segment-list 6-4-usid hop3 micro-srv6-sid 1111:2222:4444::
```

uSID

Show SRv6-TE (Full SID)

```
jcluser@vmx6# run show spring-traffic-engineering lsp name srv6-6-4 detail
```

```
Name: srv6-6-4
```

```
Tunnel-source: Static configuration
```

```
Tunnel Forward Type: SRV6
```

```
To: 2001:db8:0:a4::
```

```
From: 2001:db8:1::6
```

```
Te-group-id: 0
```

```
State: Up
```

```
Path: srv6-6-4
```

```
Path Status: NA
```

```
Outgoing interface: NA
```

```
Auto-translate status: Disabled Auto-translate result: N/A
```

```
Compute Status:Disabled , Compute Result:N/A , Compute-Profile Name:N/A
```

```
BFD status: N/A BFD name: N/A
```

```
BFD remote-discriminator: N/A
```

```
Segment ID : 128
```

```
ERO Valid: true
```

```
SR-ERO hop count: 3
```

```
Hop 1 (Loose):
```

```
NAI: None
```

```
SID type: srv6-sid, Value: 2001:db8:0:a2:1112::
```

```
Hop 2 (Loose):
```

```
NAI: None
```

```
SID type: srv6-sid, Value: 2001:db8:0:a3:1113::
```

```
Hop 3 (Loose):
```

```
NAI: None
```

```
SID type: srv6-sid, Value: 2001:db8:0:a4:1114::
```

Show SRv6-TE (uSID)

```
jcluser@vmx6# run show spring-traffic-engineering lsp name 6-4-usid detail
```

```
Name: 6-4-usid
```

```
Tunnel-source: Static configuration
```

```
Tunnel Forward Type: SRV6
```

```
To: 1111:2222:4444::
```

```
From: 2001:db8:1::6
```

```
Te-group-id: 0
```

```
State: Up
```

```
Path: 6-4-usid
```

```
Path Status: NA
```

```
Outgoing interface: NA
```

```
Auto-translate status: Disabled Auto-translate result: N/A
```

```
Compute Status:Disabled , Compute Result:N/A , Compute-Profile Name:N/A
```

```
BFD status: N/A BFD name: N/A
```

```
BFD remote-discriminator: N/A
```

```
Segment ID : 128
```

```
ERO Valid: true
```

```
SR-ERO hop count: 3
```

```
Hop 1 (Loose):
```

```
NAI: None
```

```
SID type: Micro SRv6 SID, Value: 1111:2222:3333::
```

```
SSTLV: BL: 32, NL: 16, FL: 0, AL: 80
```

```
Hop 2 (Loose):
```

```
NAI: None
```

```
SID type: Micro SRv6 SID, Value: 1111:2222:5555::
```

```
SSTLV: BL: 32, NL: 16, FL: 0, AL: 80
```

```
Hop 3 (Loose):
```

```
NAI: None
```

```
SID type: Micro SRv6 SID, Value: 1111:2222:4444::
```

```
SSTLV: BL: 32, NL: 16, FL: 0, AL: 80
```

```
SA=2001:db8:1::6  
da= 1111:2222:3333:5555:4444::
```




L3VPN 用 Full SID

L3VPN 用 Full SID コントロールプレーン

MP-BGP コンフィグ :

```
group v6-ibgp {
  type internal;
  local-address 2001:db8:1::4;
  family inet {
    unicast {
      extended-nextthop;
    }
  }
  family inet-vpn {
    unicast {
      extended-nextthop;
      advertise-srv6-service;
      accept-srv6-service;
    }
  }
  neighbor 2001:db8:1::6;
}
```

vmx6 ルックアップ inet6.3

プロトコルのネクストホップ = 2001:db8:0:a4:: を解決



vmx6

```
> Path Attribute - EXTENDED_COMMUNITIES
v Path Attribute - BGP Prefix-SID
  > Flags: 0xc0, Optional, Transitive, Complete
  Type Code: BGP Prefix-SID (40)
  Length: 37
  v SRv6 L3 Service
    Type: SRv6 L3 Service (5)
    Length: 34
    Reserved: 00
    v SRv6 Service Sub-TLVs
      v SRv6 Service Sub-TLV - SRv6 SID Information
        Type: SRv6 SID Information (1)
        Length: 30
        Reserved: 00
        SRv6 SID Value: 2001:db8:0:a1::
        SRv6 SID Flags: 0x00
        SRv6 Endpoint Behavior: End.DT4 (0x0013)
        Reserved: 00
      v SRv6 Service Data Sub-Sub-TLVs
        v SRv6 Service Data Sub-Sub-TLV - SRv6 SID Structure
          Type: SRv6 SID Structure (1)
          Length: 6
          Locator Block Length: 64
          Locator Node Length: 0
          Function Length: 16
          Argument Length: 0
          Transposition Length: 16
          Transposition Offset: 64
```



vmx4

□ ケータ

2001:db8:0:a4::/64

CE プレフィックスのアドバタイズ

- SRv6 L3 サービス TLV
- 振る舞い = End.DT4
- SID 構造
- VPN ラベル 0x4444

END.DT4 = 2001:db8:0:a4:4444::

L3VPN 用 Full SID

データプレーン

IPv6
SA=2001:db8:1::6
DA= 2001:db8:0:a3:1113::

SRH
セグメント左 = 1
SID[0] 2001:db8:0:a4:4444::
SID[1] 2001:db8:0:a3:1113::
SID[2] 2001:db8:0:a2:1112::

IP データ

L3VPN :

vmx4 END.DT4 = 2001:db8:0:a4:4444::
Vmx6 END.DT4 = 2001:db8:0:a6:4444::

IPv6
SA=2001:db8:1::6
DA= 2001:db8:0:a4:4444::

SRH
セグメント左 = 0
SID[0] 2001:db8:0:a4:4444::
SID[1] 2001:db8:0:a3:1113::
SID[2] 2001:db8:0:a2:1112::

IP データ

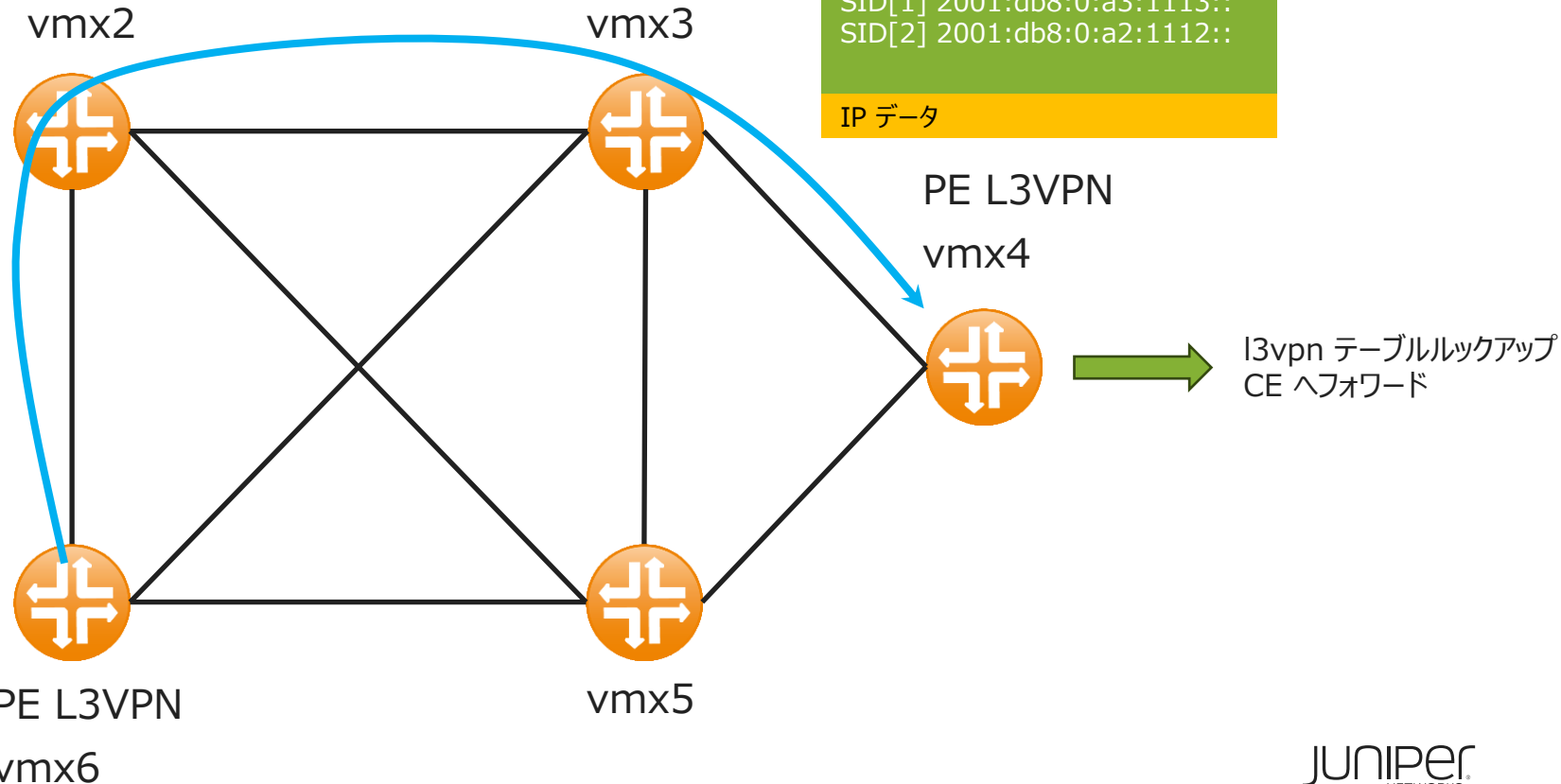
40バイト
ヘッダ

IPv6
SA=2001:db8:1::6
DA= 2001:db8:0:a2:1112::

SRH
セグメント左 = 2
SID[0] 2001:db8:0:a4:4444::
SID[1] 2001:db8:0:a3:1113::
SID[2] 2001:db8:0:a2:1112::

IP データ

各 SID は
128 ビット



L3VPN 用 Full SID コンフィグ

MP-BGP

```
set protocols bgp group v6-ibgp type internal
set protocols bgp group v6-ibgp local-address 2001:db8:1::6
set protocols bgp group v6-ibgp family inet unicast extended-nexthop
set protocols bgp group v6-ibgp family inet-vpn unicast extended-nexthop
set protocols bgp group v6-ibgp family inet-vpn unicast advertise-srv6-service
set protocols bgp group v6-ibgp family inet-vpn unicast accept-srv6-service
set protocols bgp group v6-ibgp neighbor 2001:db8:1::4
```

SRv6 L3 サービスのアドバタイズ

ルーティングインスタンス (vmx6)

```
set routing-instances srv6_l3vpn1 instance-type vrf
set routing-instances srv6_l3vpn1 protocols bgp source-packet-routing srv6 locator myloc end-dt4-sid 2001:db8:0:a6:4444::
set routing-instances srv6_l3vpn1 interface lt-0/0/0.100
set routing-instances srv6_l3vpn1 route-distinguisher 1.1.1.6:1
set routing-instances srv6_l3vpn1 vrf-target target:65001:2
```

VPN ラベル HEX 0x4444

ルーティングインスタンス (vmx4)

```
set routing-instances srv6_l3vpn1 instance-type vrf
set routing-instances srv6_l3vpn1 protocols bgp source-packet-routing srv6 locator myloc end-dt4-sid 2001:db8:0:a4:4444::
set routing-instances srv6_l3vpn1 interface ge-0/0/4.0
set routing-instances srv6_l3vpn1 route-distinguisher 1.1.1.4:1
set routing-instances srv6_l3vpn1 vrf-target target:65001:2
```

VPN ラベル HEX 0x4444

L3VPN 接続性を確認

```
jcluser@vmx6# run show route table srv6_l3vpn1.inet.0
192.168.12.0/24 *[BGP/170] 00:00:07, localpref 100, from 2001:db8:1::4
  AS path: I, validation-state: unverified
  > to fe80::250:56ff:febe:a55e via ge-0/0/4.0, SRv6 SID: 2001:db8:0:a4:4444::, SRV6-Tunnel, Dest: 2001:db8:0:a4::
  > to fe80::250:56ff:febe:a2fe via ge-0/0/0.0, SRv6 SID: 2001:db8:0:a4:4444::, SRV6-Tunnel, Dest: 2001:db8:0:a4::
```

```
jcluser@vmx6# run show route table srv6_l3vpn1.inet.0 extensive expanded-nh
```

```
.....
KRT in-kernel 192.168.12.0/24 -> {composite(636)}
  *BGP Preference: 170/-101
    Route Distinguisher: 1.1.1.4:1
    Next hop type: Indirect, Next hop index: 0
    Address: 0x7d3d394
    Next-hop reference count: 2
    Kernel Table Id: 0
    Source: 2001:db8:1::4
    Next hop type: Chain, Next hop index: 0
    Next hop: via Chain Tunnel Composite, SRv6 (src 2001:db8:1::6 dest 2001:db8:0:a4::)
    Next hop: ELNH Address 0x7eeb014, selected
    SRV6-Tunnel: Reduced-SRH Encap-mode Remove-Last-Sid
    Src: 2001:db8:1::6 Dest: 2001:db8:0:a4::
    Segment-list[0] 2001:db8:0:a2:1112::
    Segment-list[1] 2001:db8:0:a3:1113::
    Segment-list[2] 2001:db8:0:a4:1114::
  .....
  SRv6 SID: 2001:db8:0:a4:: Service tlv type: 5 Behavior: 19 BL: 64 NL: 0 FL: 16 AL: 0 TL: 16 TO: 64
  VPN Label: 279616
```

VPN ラベル HEX 0x4444

```
jcluser@vmx6> ping 192.168.12.1 routing-instance srv6_l3vpn1 rapid count 10
PING 192.168.12.1 (192.168.12.1): 56 data bytes
!!!!!!!!!
--- 192.168.12.1 ping statistics ---
10 packets transmitted, 10 packets received, 0% packet loss
```

Full SID の SRH

```
IPv6 ヘッダー
SA=2001:db8:1::6
DA= 2001:db8:0:a2:1112::
```

```
SRH
SID[0] 2001:db8:0:a4:4444::
SID[1] 2001:db8:0:a3:1113::
SID[2] 2001:db8:0:a2:1112::
```




L3VPN 用 uSID

L3VPN 用 uSID コントロールプレーン

```

> Path Attribute - EXTENDED_COMMUNITIES
> Path Attribute - BGP Prefix-SID
  > Flags: 0xc0, Optional, Transitive, Complete
    Type Code: BGP Prefix-SID (40)
    Length: 37
  > SRv6 L3 Service
    Type: SRv6 L3 Service (5)
    Length: 34
    Reserved: 00
  > SRv6 Service Sub-TLVs
    > SRv6 Service Sub-TLV - SRv6 SID Information
      Type: SRv6 SID Information (1)
      Length: 30
      Reserved: 00
      SRv6 SID Value: 1111:2222:4444::
      SRv6 SID Flags: 0x00
      SRv6 Endpoint Behavior: End.DT4 with NEXT-CSID (0x003f)
      Reserved: 00
    > SRv6 Service Data Sub-Sub-TLVs
      > SRv6 Service Data Sub-Sub-TLV - SRv6 SID Structure
        Type: SRv6 SID Structure (1)
        Length: 6
        Locator Block Length: 32
        Locator Node Length: 16
        Function Length: 16
        Argument Length: 0
        Transposition Length: 16
        Transposition Offset: 48
  
```

vmx6 ルックアップ inet6.3
 プロトコルのネクストホップ = 1111:2222:4444:: を解決



vmx6



vmx4
 uN
 1111:2222:4444::

CE プレフィックスのアドバタイズ

- SRv6 L3 サービス TLV
 振る舞い = uDT
- SID 構造
- VPN ラベル 0xf444

u.DT4 = 1111:2222:4444:f444::

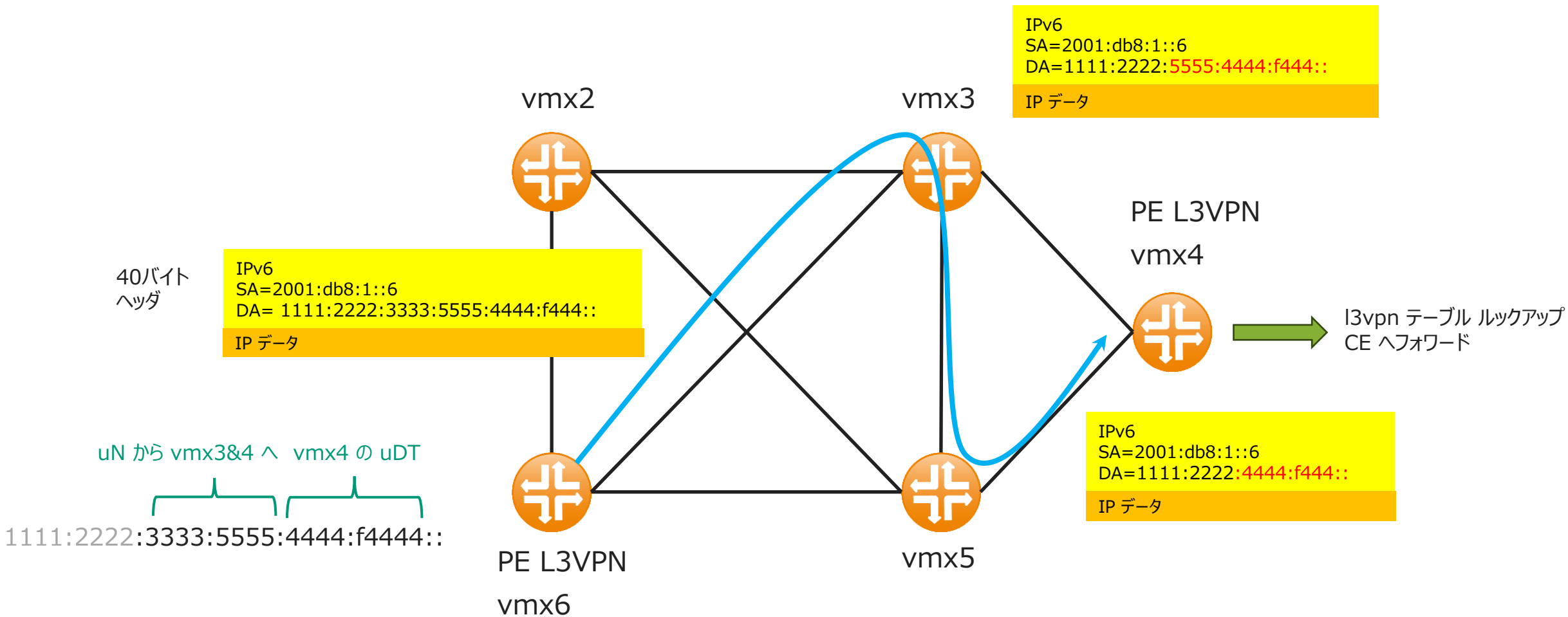
L3VPN 用 uSID

データプレーン

L3VPN :

vmx4 uDT4 = 1111:2222:4444:f444::

vmx6 uDT4 = 1111:2222:6666:f444::



L3VPN 用 uSID コンフィグ

MP-BGP

```
set protocols bgp group v6-ibgp type internal
set protocols bgp group v6-ibgp local-address 2001:db8:1::6
set protocols bgp group v6-ibgp family inet unicast extended-nexthop
set protocols bgp group v6-ibgp family inet-vpn unicast extended-nexthop
set protocols bgp group v6-ibgp family inet-vpn unicast advertise-srv6-service
set protocols bgp group v6-ibgp family inet-vpn unicast accept-srv6-service
set protocols bgp group v6-ibgp neighbor 2001:db8:1::4
```

SRv6 L3 サービスのアドバタイズ
(Full SID サービスと同じ)

ルーティングインスタンス (vmx6)

```
set routing-instances usid_l3vpn1 instance-type vrf
set routing-instances usid_l3vpn1 protocols bgp source-packet-routing srv6 locator usidloc micro-dt4-sid 0xf444
set routing-instances usid_l3vpn1 interface lt-0/0/0.100
set routing-instances usid_l3vpn1 route-distinguisher 1.1.1.6:1
set routing-instances usid_l3vpn1 vrf-target target:65001:1
```

VPN ラベル HEX 0xf444

ルーティングインスタンス (vmx4)

```
set routing-instances usid_l3vpn1 instance-type vrf
set routing-instances usid_l3vpn1 protocols bgp source-packet-routing srv6 locator usidloc micro-dt4-sid 0xf444
set routing-instances usid_l3vpn1 interface ge-0/0/4.0
set routing-instances usid_l3vpn1 route-distinguisher 1.1.1.4:1
set routing-instances usid_l3vpn1 vrf-target target:65001:1
```

VPN ラベル HEX 0xf444

L3VPN 接続性の確認

```
jcluser@vmx6> show route table usid_l3vpn1.inet.0
192.168.12.0/24  *[BGP/170] 00:03:45, localpref 100, from 2001:db8:1::4
  AS path: I, validation-state: unverified
  > to fe80::250:56ff:febe:a55e via ge-0/0/4.0, SRv6 SID: 1111:2222:4444:f444::, SRV6-Tunnel, Dest: 1111:2222:4444::
  > to fe80::250:56ff:febe:1deb via ge-0/0/2.0, SRv6 SID: 1111:2222:4444:f444::, SRV6-Tunnel, Dest: 1111:2222:4444::
```

```
jcluser@vmx6> show route table usid_l3vpn1.inet 192.168.12.0/24 extensive expanded-nh
```

```
.....
KRT in-kernel 192.168.12.0/24 -> {composite(571)}
  *BGP Preference: 170/-101
    Route Distinguisher: 1.1.1.4:1
    Next hop type: Indirect, Next hop index: 0
    Address: 0x7d3ab94
    Next-hop reference count: 2
    Kernel Table Id: 0
    Source: 2001:db8:1::4
    Next hop type: Chain, Next hop index: 0
    Next hop: via Chain Tunnel Composite, SRv6 (src 2001:db8:1::6 dest 1111:2222:4444::)
    Next hop: ELNH Address 0x7eaa74, selected
    SRV6-Tunnel: Reduced-SRH Encap-mode Remove-Last-Sid
    Src: 2001:db8:1::6 Dest: 1111:2222:4444::
    Segment-list[0] 1111:2222:3333::
    Segment-list[1] 1111:2222:5555::
    Segment-list[2] 1111:2222:4444::
  .....
SRv6 SID: 1111:2222:4444:: Service tlv type: 5 Behavior: 63 BL: 32 NL: 16 FL: 16 AL: 0 TL: 16 TO: 48
VPN Label: 1000512
```

VPN ラベル HEX 0xf444

```
jcluser@vmx6> ping 192.168.12.1 routing-instance usid_l3vpn1 rapid count 10
```

```
PING 192.168.12.1 (192.168.12.1): 56 data bytes
```

```
!!!!!!!!!
```

```
--- 192.168.12.1 ping statistics ---
```

```
10 packets transmitted, 10 packets received, 0% packet loss
```

```
uSID 圧縮後の IPv6 ヘッダー
SA=2001:db8:1::6
DA= 1111:2222:3333:5555:4444:f444:
```


ジュニパー JCL & vLabs - お試しを！

「Demonstrations」ドメインを選択し、「SRv6」を検索

<https://cloudlabs.juniper.net>

The screenshot shows the Juniper Cloud Labs interface. At the top, there is a navigation bar with 'JUNIPER NETWORKS Cloud Labs', 'BLUEPRINTS', and 'SANDBOXES'. On the right, there are user options for 'HENRYCHEUNG', a dropdown menu for 'DEMONSTRATIONS-US1', and links for 'HELP' and 'TUTORIALS'. The left sidebar contains navigation options for 'Blueprints' and 'Sandboxes', with sub-sections for 'All Sandboxes (0)' and 'Saved (0)'. A 'FILTER BY:' section includes 'Share Level' and 'Public (143)'. The main content area is titled 'SRv6 ブループリント' and lists seven blueprints, each with a network diagram, a title, a description, and a 'RESERVE' button. The blueprints are: 1. '[JCL Virtual Sandbox] L3VPN over Segment Routing v6 [SRv6]' (L3VPN over SRv6 underlay), 2. '[JCL Virtual Sandbox] L3VPN over Segment Routing v6 v2.0' (L3VPN over SRv6 underlay and Transposition functionality), 3. '[JCL Virtual Sandbox] Segment Routing v6 SRv6 End-SID' (Endpoint Behavior functionality), 4. '[JCL Virtual Sandbox] Segment Routing v6 Summarization' (route summarization), 5. '[JCL Virtual Sandbox] SRv6 L3VPN Inter-AS Option-C' (L3VPN Inter-AS Option C), 6. '[JCL Virtual Sandbox] LinkSlicing with MPLS and SRv6 - Part 2' (Link Slicing with MPLS and SRv6). On the right side, there is a 'BROWSE BY CATEGORY' section with icons for 'Live Demos', 'Sandboxes (Physical & Virtual)', 'vLabs spin-off', and 'JVDs'. A 'Back to top' link is located at the bottom right of the main content area.



Thank you

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