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Configuring MPLS SR

About MPLS SR

Segment Routing (SR) is a source routing technology. The source node selects a path for the packets, and then encodes the path in the packet header as an ordered list of segments. Each segment is identified by the segment identifier (SID). The SR nodes along the path forward the packets based on the SIDs in the packets. Only the source node needs to maintain the path status.

SR can operate with MPLS. In an MPLS network, SR uses MPLS labels as SIDs to forward packets on an LSP.

MPLS SR characteristics

MPLS SR has the following characteristics:

- MPLS SR forwards packets based on the existing MPLS infrastructure. No infrastructure modifications are needed to implement SR on an MPLS network. For more information about the MPLS infrastructure, see MPLS basics configuration in *MPLS Configuration Guide*.
- MPLS SR implements network features such as MPLS TE in a simpler way, eliminating issues such as heavy and complicated routing protocol deployment.

Basic concepts

- **SR node**—A node enabled with the MPLS SR feature. The ingress node (source node) adds labels to packets. The transit nodes forward packets based on labels. The egress node removes labels and forwards packets to the destination networks. SR nodes form an SR domain.
- **Segment**—An instruction an SR node executes on the incoming packet.
- **SID**—Segment ID, which is MPLS label in MPLS SR.
- **Segment type**—The following types of segments are available:
 - **Prefix segment**—SIDs are assigned to nodes based on destination address prefix. The nodes create prefix-specific forwarding entries.
 - **Adjacency segment**—SIDs are assigned to nodes based on adjacency.
- **SRLSP**—Segment routing label switched path, an LSP along which SR uses MPLS labels as SIDs to forward packets.

How MPLS SR works

MPLS SR involves the following steps:

1. Label allocation for all nodes and links along the packet forwarding paths.
2. [Label forwarding entry installation based on SIDs](#). All MPLS SR devices in the SR domain use the allocated labels to create label forwarding entries.
3. [SRLSP setup](#).

When the ingress node of an SRLSP receives a packet, it adds labels to the packet and forwards the packet to the egress node through the SRLSP. After receiving a packet from the SRLSP, the egress node removes the label and forwards the packet based on the routing table.

You can bind a higher layer application (for example, MPLS TE) to an SRLSP to forward traffic of the application through the SRLSP.

Static segment configuration

Static MPLS SR provides the following methods for configuring static segments for a destination:

- **Prefix segment method**—Manually configure the incoming label, outgoing label, and next hop for the destination address prefix on each SR node.
- **Adjacency segment method**—Manually configure the incoming label and next hop for the adjacency to the neighbor on each SR node.

SRLSP setup

You can manually configure an SRLSP. To configure an SRLSP, you must specify the label stack for packets to be forwarded along the SRLSP on the ingress node. Each label in the stack corresponds to a prefix SID or adjacency SID. The system can look for the outgoing label and next hop based on the prefix SID or adjacency SID.

Packet forwarding in MPLS SR

Based on the SID allocation method, MPLS SR uses one of the following packet forwarding methods:

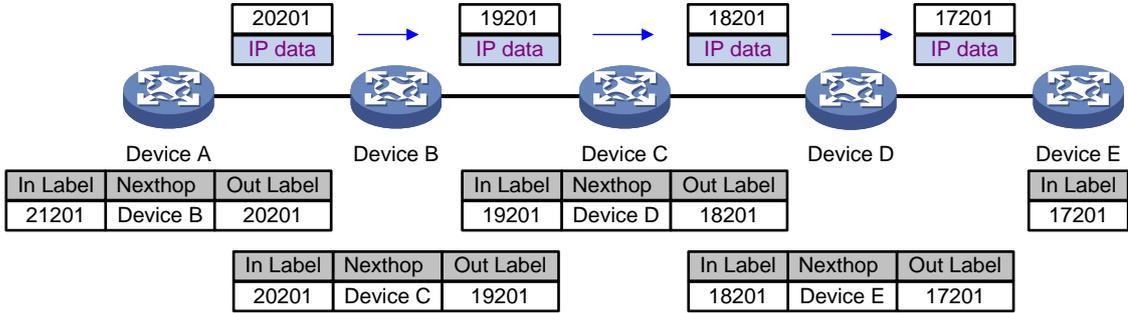
- **Prefix SID-based packet forwarding**—The ingress node encapsulates the prefix SID for the egress node to a packet. The transit nodes forward the packet based on label forwarding entries.
- **Adjacency SID-based packet forwarding**—The ingress node encapsulates the label stack that contains the adjacency SIDs of all links along the forwarding path to a packet. Each transit node uses the top label in the label stack to determine the next hop and pops the top label before forwarding the packet to the next hop.
- **Prefix and adjacency SID-based packet forwarding**—The nodes use prefix SID-based packet forwarding in combination with adjacency-based packet forwarding.

Prefix SID-based packet forwarding

Figure 1 shows how a packet is forwarded along the SRLSP from Device A to Device E based on prefix SIDs. In this example, the outgoing label for the packet is 21201 on Device A.

1. Ingress node Device A searches for a forwarding entry for label 21201, adds outgoing label 20201 to the packet and sends the packet to the next hop (Device B).
2. When transit node Device B receives the packet, it searches for a label forwarding entry that matches the label in the packet. Then, Device B uses the outgoing label of the matched entry (19201) to replace the label in the packet and forwards the packet to the next hop (Device C).
3. Transit nodes Device C and Device D process the packet in the same way Device B does.
4. When egress node Device E receives the packet, it removes the label and forwards the packet by IP address.

Figure 1 Prefix SID-based packet forwarding

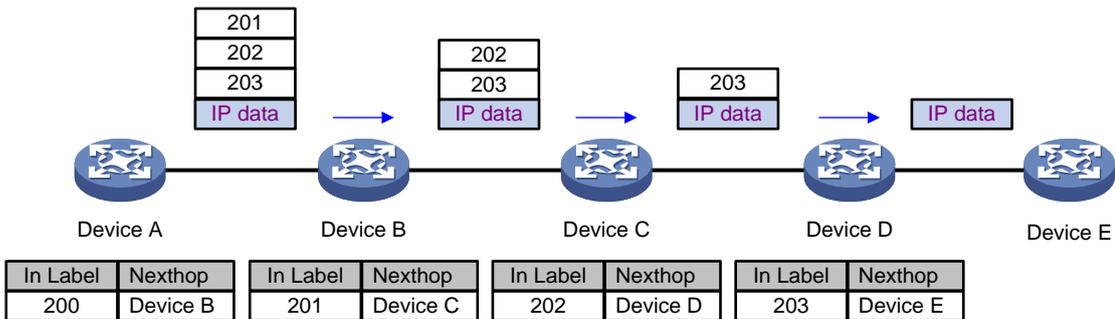


Adjacency SID-based packet forwarding

Figure 2 shows how a packet is forwarded along the SRLSP from Device A to Device E based on adjacency SIDs. In this example, the label stack for the packet is configured as (200, 201, 202, and 203) on Device A.

1. Ingress node Device A searches for a forwarding entry for the top label (200) to determine the next hop. Then, Device A adds label stack (201, 202, and 203) to the packet, and forwards the packet to the next hop (Device B).
2. When transit node Device B receives the packet, it searches for a forwarding entry for the top label (201) to determine the next hop. Then, Device B removes the top label from the stack and forwards the packet to the next hop (Device C).
3. When transit node Device C receives the packet, it searches for a forwarding entry for the top label (202) to determine the next hop. Then, Device C removes the top label from the stack and forwards the packet to the next hop (Device D).
4. When transit node Device D receives the packet, it searches for a forwarding entry for the label (203) to determine the next hop. Then, Device D removes the label stack from the packet and forwards the packet to the next hop (Device E).
5. When egress node Device E receives the packet, it forwards the packet by IP address.

Figure 2 Adjacency SID-based packet forwarding



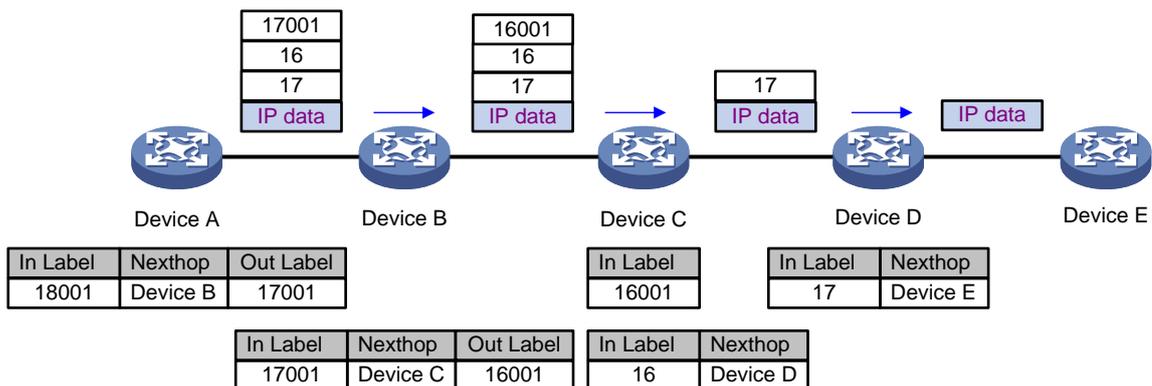
Prefix and adjacency SID-based packet forwarding

Figure 3 shows how a packet is forwarded along the SRLSP from Device A to Device E based on prefix SIDs and adjacency SIDs. In this example, the index value for the prefix SID of Device C is 1. The prefix SIDs for Device A, Device B, and Device C are 18001, 17001, and 16001, respectively. The Adjacency SIDs that Device C and Device D allocate for the adjacent links are 16 and 17, respectively. On Device A, the label stack for the packet is (18001, 16, 17).

1. Ingress node Device A searches for a forwarding entry for label 18001 to determine the outgoing label (17001) and next hop (Device B). Device A swaps label 18001 with 17001. Then, it adds label stack (17001, 16, 17) to the packet and sends the packet to the next hop (Device B).

2. When transit node Device B receives the packet, it searches for a label forwarding entry that matches the top label in the label stack (17001). Then, Device B uses the outgoing label of the matched entry (16001) to replace the top label and forwards the packet to the next hop (Device C).
3. When transit node Device C receives the packet, it removes the top label 16001 and searches for a forwarding entry for the next label (16) to determine the next hop. Then, Device C removes label 16 from the stack and forwards the packet to the next hop (Device D).
4. When transit node Device D receives the packet, it searches for a forwarding entry for the label (17) to determine the next hop. Then, Device D removes the label stack from the packet and forwards the packet to the next hop (Device E).
5. When egress node Device E receives the packet, it forwards the packet by IP address.

Figure 3 Prefix and adjacency SID-based packet forwarding



Protocols and standards

- [draft-ietf-spring-segment-routing-mpls-00](#)
- [draft-ietf-spring-segment-routing-02](#)

MPLS SR tasks at a glance

IP traffic forwarding over SRLSPs tasks at a glance

To forward IP traffic over SRLSPs, perform the following configuration tasks:

1. [Configuring segments](#)
 - Select one of the following tasks:
 - [Configuring static segments](#)

MPLS TE traffic forwarding over static SRLSPs tasks at a glance

To forward MPLS TE traffic over static SRLSPs, perform the following configuration tasks:

1. [Configuring segments](#)
 - Select one of the following tasks:
 - [Configuring static segments](#)
2. [Configuring an MPLS TE tunnel to use static SRLSPs](#)

Configuring static segments

Prerequisites for static segment configuration

Before you configure static segments for a static SRLSP, perform the following tasks:

- Determine the ingress node, transit nodes, and egress node of the static SRLSP.
- Determine the incoming label for the adjacency segment from a node to next hop of the node. Determine the incoming label of the prefix segment for the destination IP address on each node. On a device, a static SRLSP, a static LSP, and a static CRLSP cannot use the same incoming label. For more information about CRLSP, see MPLS TE configuration in *MPLS Configuration Guide*.
- Enable MPLS on all nodes and interfaces that will participate in MPLS forwarding. For information about enabling MPLS, see basic MPLS configuration in *MPLS Configuration Guide*.

Configuring a static adjacency segment

Restrictions and guidelines

This task is required on all nodes of a static SRLSP.

Multiple static SRLSPs can share an adjacency segment.

If you specify the next hop address for a static adjacency segment, make sure the following requirements are met:

- The device has a route to the next hop address.
- MPLS is enabled on the output interface of the route.

If you specify an output interface for a static adjacency segment, make sure the following requirements are met:

- The interface is up.
- The interface can receive direct routes.
- MPLS is enabled on the interface.

A static adjacency segment must use a different incoming label than existing static LSPs, static PWs, and static CRLSPs. If not, the configured adjacency segment is unavailable. The adjacency segment cannot become available even if you change the incoming label of the static LSP, static PW, or static CRLSP. To resolve this problem, you must delete the existing adjacency segment and configure a new one with a different incoming label.

Procedure

1. Enter system view.

```
system-view
```

2. Configure a static adjacency segment.

```
static-sr-mpls adjacency adjacency-path-name in-label label-value  
{ nexthop ip-address | outgoing-interface interface-type  
interface-number }
```

The next hop address for a static adjacency segment cannot be a local public IP address.

Configuring a static prefix segment

Restrictions and guidelines

This task is required on all nodes of a static SRLSP.

Multiple static SRLSPs to the same destination can share a prefix segment.

A prefix segment must use the next hop or output interface of the optimal route to the destination address of the prefix segment. You can configure multiple prefix segments to the destination address for load sharing if the optimal route has more than one next hop or output interface. To avoid configuration failure, make sure all prefix segments use the same prefix segment name and incoming label.

Procedure

1. Enter system view.

```
system-view
```

2. Configure a static prefix segment.

```
static-sr-mpls prefix prefix-path-name destination ip-address  
{ mask-length | mask } in-label in-label-value [ { nexthop ip-address  
| outgoing-interface interface-type interface-number } out-label  
out-label-value ]
```

The next hop address for a static prefix segment cannot be a local public IP address.

Configuring an MPLS TE tunnel to use static SRLSPs

Tasks at a glance

1. Enable MPLS TE.

Perform this task on all nodes that the MPLS TE tunnel traverses. For more information, see MPLS TE configuration in *MPLS Configuration Guide*.

2. [Configuring a static SRLSP](#)

Perform this task on the ingress node of the MPLS TE tunnel.

3. Create the tunnel interface and specify the destination address of the tunnel.

Perform this task on the ingress node of the MPLS TE tunnel. For more information, see MPLS TE configuration in *MPLS Configuration Guide*.

4. [Binding a static SRLSP to an MPLS TE tunnel interface](#)

Perform this task on the ingress node of the MPLS TE tunnel.

5. Configure static routes or policy-based routing to direct traffic to the MPLS TE tunnel.

Perform this task on the ingress node of the MPLS TE tunnel. For more information, see MPLS TE configuration in *MPLS Configuration Guide*.

Configuring a static SRLSP

1. Enter system view.

```
system-view
```

2. Configure a static SRLSP.

```
static-sr-mpls lsp lsp-name out-label out-label-value&<1-n>
```

Binding a static SRLSP to an MPLS TE tunnel interface

1. Enter system view.

```
system-view
```

- Enter MPLS TE tunnel interface view.
`interface tunnel tunnel-number [mode mpls-te]`
- Set the MPLS TE tunnel establishment mode to static.
`mpls te signaling static`
By default, MPLS TE uses RSVP-TE to establish a tunnel.
For more information about this command, see *MPLS Command Reference*.
- Bind a static SRLSP to the MPLS TE tunnel interface.
`mpls te static-sr-lsp lsp-name [backup]`
By default, an MPLS TE tunnel does not use a static SRLSP.
The specified SRLSP must be already created by using the `static-sr-mpls lsp` command.
You can specify the `backup` keyword to bind a backup static SRLSP only if both the main and backup SRLSPs are established by using the adjacency segment method.

Display and maintenance commands for MPLS SR

Execute `display` commands in any view.

Task	Command
Display static SRLSP and adjacency segment information.	<code>display mpls static-sr-mpls { lsp [<i>lsp-name</i>] adjacency [<i>adjacency-path-name</i>] }</code>
Display static prefix segment information.	<code>display mpls static-sr-mpls prefix [path <i>lsp-name</i> destination <i>ip-address</i> [<i>mask</i> <i>mask-length</i>]]</code>

MPLS SR configuration examples

Example: Configuring MPLS SR based on static segments

Network configuration

As shown in [Figure 4](#), Switch A, Switch B, Switch C, Switch D, and Switch E run IS-IS.

Establish an MPLS TE tunnel over a static SRLSP from Switch A to Switch D to transmit data between the two IP networks. The static SRLSP traverses three adjacency segments: Switch A—Switch B, Switch B—Switch C, and Switch C—Switch D.

Establish an MPLS TE tunnel over a static SRLSP from Switch A to Switch E to transmit data between the IP networks. The static SRLSP traverses three segments: Switch A—Switch B (adjacency segment), Switch B—Switch C (prefix segment), and Switch C—Switch E (adjacency segment).

Figure 4 Network diagram

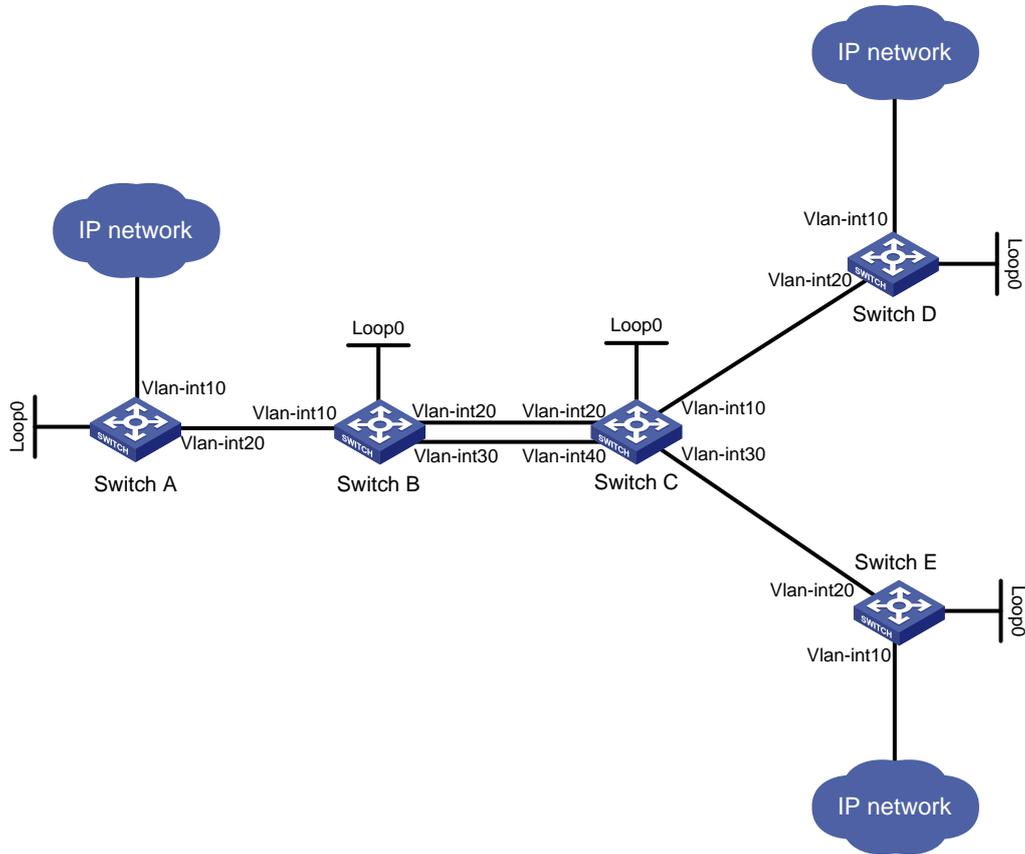


Table 1 Interface and IP address assignment

Device	Interface	IP address	Device	Interface	IP address
Switch A	Loop0	1.1.1.9/32	Switch B	Loop0	2.2.2.9/32
	Vlan-int10	100.1.1.1/24		Vlan-int10	10.1.1.2/24
	Vlan-int20	10.1.1.1/24		Vlan-int20	20.1.1.1/24
				Vlan-int30	60.1.1.1/24
Switch C	Loop0	3.3.3.9/32	Switch D	Loop0	4.4.4.9/32
	Vlan-int10	30.1.1.1/24		Vlan-int10	100.1.2.1/24
	Vlan-int20	20.1.1.2/24		Vlan-int20	30.1.1.2/24
	Vlan-int30	50.1.1.1/24			
	Vlan-int40	60.1.1.2/24			
Switch E	Loop0	5.5.5.9/32			
	Vlan-int10	200.1.2.1/24			
	Vlan-int20	50.1.1.2/24			

Procedure

1. Configure IP addresses and masks for interfaces. (Details not shown.)
2. Configure IS-IS to advertise interface addresses, including the loopback interface addresses. (Details not shown.)

3. Execute the **display ip routing-table** command on each switch to verify that the switches have learned the routes to one another, including the routes to the loopback interfaces. (Details not shown.)
4. Configure LSR IDs, and enable MPLS and MPLS TE:

Configure Switch A.

```
<SwitchA> system-view
[SwitchA] mpls lsr-id 1.1.1.9
[SwitchA] mpls te
[SwitchA-te] quit
[SwitchA] interface vlan-interface 20
[SwitchA-Vlan-interface20] mpls enable
[SwitchA-Vlan-interface20] quit
```

Configure Switch B.

```
<SwitchB> system-view
[SwitchB] mpls lsr-id 2.2.2.9
[SwitchB] mpls te
[SwitchB-te] quit
[SwitchB] interface vlan-interface 10
[SwitchB-Vlan-interface10] mpls enable
[SwitchB-Vlan-interface10] quit
[SwitchB] interface vlan-interface 20
[SwitchB-Vlan-interface20] mpls enable
[SwitchB-Vlan-interface20] quit
[SwitchB] interface vlan-interface 30
[SwitchB-Vlan-interface30] mpls enable
[SwitchB-Vlan-interface30] quit
```

Configure Switch C.

```
<SwitchC> system-view
[SwitchC] mpls lsr-id 3.3.3.9
[SwitchC] mpls te
[SwitchC-te] quit
[SwitchC] interface vlan-interface 10
[SwitchC-Vlan-interface10] mpls enable
[SwitchC-Vlan-interface10] quit
[SwitchC] interface vlan-interface 20
[SwitchC-Vlan-interface20] mpls enable
[SwitchC-Vlan-interface20] quit
[SwitchC] interface vlan-interface 30
[SwitchC-Vlan-interface30] mpls enable
[SwitchC-Vlan-interface30] quit
[SwitchC] interface vlan-interface 40
[SwitchC-Vlan-interface40] mpls enable
[SwitchC-Vlan-interface40] quit
```

Configure Switch D.

```
<SwitchD> system-view
[SwitchD] mpls lsr-id 4.4.4.9
[SwitchD] mpls te
[SwitchD-te] quit
```

```
[SwitchD] interface vlan-interface 20
[SwitchD-Vlan-interface20] mpls enable
[SwitchD-Vlan-interface20] quit
```

Configure Switch E.

```
<SwitchE> system-view
[SwitchE] mpls lsr-id 5.5.5.9
[SwitchE] mpls te
[SwitchE-te] quit
[SwitchE] interface vlan-interface 20
[SwitchE-Vlan-interface20] mpls enable
[SwitchE-Vlan-interface20] quit
```

5. Configure adjacency segment labels on each node:

On Switch A, create adjacency segment **adjacency-1**, and bind incoming label 16 to the next hop address 10.1.1.2.

```
[SwitchA] static-sr-mpls adjacency adjacency-1 in-label 16 nexthop 10.1.1.2
```

On Switch B, create adjacency segment **adjacency-2**, and bind incoming label 21 to next hop address 20.1.1.2.

```
[SwitchB] static-sr-mpls adjacency adjacency-2 in-label 21 nexthop 60.1.1.2
```

On Switch B, create prefix segments **prefix-1** to destination IP address 5.5.5.9. Bind incoming label 16000 to next hop addresses 20.1.1.2 and 60.1.1.2, and specify outgoing label 16001.

```
[SwitchB] static-sr-mpls prefix prefix-1 destination 5.5.5.9 32 in-label 16000
nexthop 20.1.1.2 out-label 16001
```

```
[SwitchB] static-sr-mpls prefix prefix-1 destination 5.5.5.9 32 in-label 16000
nexthop 60.1.1.2 out-label 16001
```

On Switch C, create adjacency segment **adjacency-1**, and bind incoming label 30 to next hop address 30.1.1.2. Create adjacency segment **adjacency-2**, and bind incoming label 31 to next hop address 50.1.1.2.

```
[SwitchC] static-sr-mpls adjacency adjacency-1 in-label 30 nexthop
30.1.1.2
```

```
[SwitchC] static-sr-mpls adjacency adjacency-2 in-label 31 nexthop
50.1.1.2
```

On Switch C, create prefix segment **prefix-1** to destination IP address 5.5.5.9, and specify incoming label 16001.

```
[SwitchC] static-sr-mpls prefix prefix-1 destination 5.5.5.9 32
in-label 16001
```

6. On Switch A, establish static SRLSP **static-sr-lsp-1** to Switch D and static SRLSP **static-sr-lsp-2** to Switch E:

Configure Switch A as the ingress node of static SRLSP **static-sr-lsp-1** and configure a label stack of [16, 21, 30].

```
[SwitchA] static-sr-mpls lsp static-sr-lsp-1 out-label 16 21 30
```

Configure Switch A as the ingress node of static SRLSP **static-sr-lsp-2** and configure a label stack of [16, 16000, 31].

```
[SwitchA] static-sr-mpls lsp static-sr-lsp-2 out-label 16 16000 31
```

7. Configure MPLS TE tunnels over static SRLSPs on Switch A:

Establish static MPLS TE tunnel 1 to Switch D and specify the LSR ID of Switch D as the tunnel destination address. Bind static SRLSP **static-sr-lsp-1** to MPLS TE tunnel interface 1.

```
[SwitchA] interface tunnel 1 mode mpls-te
```

```
[SwitchA-Tunnel1] ip address 6.1.1.1 255.255.255.0
```

```
[SwitchA-Tunnel1] destination 4.4.4.9
```

```
[SwitchA-Tunnel1] mpls te signaling static
[SwitchA-Tunnel1] mpls te static-sr-mpls static-sr-lsp-1
[SwitchA-Tunnel1] quit
```

Establish static MPLS TE tunnel 2 to Switch E and specify the LSR ID of Switch E as the tunnel destination address. Bind static SRLSP **static-sr-lsp-2** to MPLS TE tunnel interface 2.

```
[SwitchA] interface tunnel 2 mode mpls-te
[SwitchA-Tunnel2] ip address 7.1.1.1 255.255.255.0
[SwitchA-Tunnel2] destination 5.5.5.9
[SwitchA-Tunnel2] mpls te signaling static
[SwitchA-Tunnel2] mpls te static-sr-mpls static-sr-lsp-2
[SwitchA-Tunnel2] quit
```

8. On Switch A, configure two static routes to direct traffic destined for 100.1.2.0/24 and 200.1.2.0/24 to MPLS TE tunnel 1 and tunnel 2, respectively.

```
[SwitchA] ip route-static 100.1.2.0 24 tunnel 1 preference 1
[SwitchA] ip route-static 200.1.2.0 24 tunnel 2 preference 1
```

Verifying the configuration

Display the MPLS TE tunnel information on Switch A.

```
[SwitchA] display mpls te tunnel-interface
Tunnel Name          : Tunnel 1
Tunnel State         : Up (Main CRLSP up)
Tunnel Attributes    :
  LSP ID              : 1                Tunnel ID          : 0
  Admin State         : Normal
  Ingress LSR ID     : 1.1.1.9          Egress LSR ID       : 4.4.4.9
  Signaling           : Static          Static CRLSP Name   : -
  Static SRLSP Name  : static-sr-lsp-1/-
  Resv Style          : -
  Tunnel mode         : -
  Reverse-LSP name    : -
  Reverse-LSP LSR ID : -                Reverse-LSP Tunnel ID: -
  Class Type          : -                Tunnel Bandwidth     : -
  Reserved Bandwidth : -
  Setup Priority      : 0                Holding Priority     : 0
  Affinity Attr/Mask : -/-
  Explicit Path       : -
  Backup Explicit Path : -
  Metric Type         : TE
  Record Route        : -                Record Label         : -
  FRR Flag            : -                Backup Bandwidth Flag: -
  Backup Bandwidth Flag: -                Backup Bandwidth Type: -
  Backup Bandwidth    : -
  Bypass Tunnel       : -                Auto Created         : -
  Route Pinning       : -
  Retry Limit         : 3                Retry Interval       : 2 sec
  Reoptimization      : -                Reoptimization Freq : -
  Backup Type         : -                Backup LSP ID        : -
  Auto Bandwidth      : -                Auto Bandwidth Freq : -
  Min Bandwidth       : -                Max Bandwidth        : -
```

```

Collected Bandwidth : -

Tunnel Name          : Tunnel 2
Tunnel State         : Up (Main CRLSP up)
Tunnel Attributes    :
  LSP ID              : 1                Tunnel ID          : 1
  Admin State         : Normal
  Ingress LSR ID     : 1.1.1.9          Egress LSR ID      : 5.5.5.9
  Signaling           : Static           Static CRLSP Name   : -
  Static SRLSP Name   : static-sr-lsp-2/-
  Resv Style          : -
  Tunnel mode         : -
  Reverse-LSP name    : -
  Reverse-LSP LSR ID : -                Reverse-LSP Tunnel ID: -
  Class Type          : -                Tunnel Bandwidth    : -
  Reserved Bandwidth : -
  Setup Priority      : 0                Holding Priority     : 0
  Affinity Attr/Mask : -/-
  Explicit Path       : -
  Backup Explicit Path : -
  Metric Type         : TE
  Record Route        : -                Record Label        : -
  FRR Flag            : -                Bandwidth Protection : -
  Backup Bandwidth Flag: -              Backup Bandwidth Type: -
  Backup Bandwidth    : -
  Bypass Tunnel       : -                Auto Created        : -
  Route Pinning       : -
  Retry Limit         : 3                Retry Interval       : 2 sec
  Reoptimization      : -                Reoptimization Freq : -
  Backup Type         : -                Backup LSP ID       : -
  Auto Bandwidth      : -                Auto Bandwidth Freq : -
  Min Bandwidth       : -                Max Bandwidth       : -
  Collected Bandwidth : -

```

Display static SRLSP establishment on each switch by using the **display mpls lsp** or **display mpls static-sr-lsp** command.

```
[SwitchA] display mpls lsp
```

FEC	Proto	In/Out Label	Interface/Out	NHLFE
1.1.1.9/0/46565	StaticCR	-/21 30	Vlan20	
1.1.1.9/1/46565	StaticCR	-/16000 31	Vlan20	
-	StaticCR	16/-	Vlan20	
10.1.1.2	Local	-/-	Vlan20	
Tunnel0	Local	-/-	NHLFE1	
Tunnel1	Local	-/-	NHLFE2	

```
[SwitchB] display mpls lsp
```

FEC	Proto	In/Out Label	Interface/Out	NHLFE
5.5.5.9/32	StaticCR	16000/16001	Vlan20	

5.5.5.9/32	StaticCR	16000/16001	Vlan30
-	StaticCR	21/-	Vlan20
20.1.1.2	Local	-/-	Vlan20
60.1.1.2	Local	-/-	Vlan30

[SwitchC] display mpls lsp

FEC	Proto	In/Out Label	Interface/Out NHLFE
5.5.5.9/32	StaticCR	16001/-	-
-	StaticCR	30/-	Vlan10
-	StaticCR	31/-	Vlan30
30.1.1.2	Local	-/-	Vlan10
50.1.1.2	Local	-/-	Vlan30