Contents

MPLS SR commands

display mpls static-sr-mpls

Use **display mpls static-sr-mpls** to display static SRLSP and adjacency segment information.

Syntax

display mpls static-sr-mpls { **lsp** [*lsp-name*] | **adjacency** [*adjacency-path-name*] }

Views

Any view

Predefined user roles

network-admin

network-operator

Parameters

lsp: Displays static SRLSP information.

lsp-name: Specifies a static SRLSP by its name, a case-sensitive string of 1 to 15 characters. If you do not specify this argument, the command displays information about all static SRLSPs.

adjacency: Displays static adjacency segment information.

adjacency-path-name: Specifies a static adjacency segment by its name, a case-sensitive string of 1 to 15 characters. If you do not specify this argument, the command displays information about all static adjacency segments.

Examples

Display information about all static SRLSPs.

```
<Sysname> display mpls static-sr-mpls lsp lsp1
Name          : lsp1
Type          : LSP
In-Label      : -
Out-Label     : 60,70,80
Out-Interface : -
Nexthop       : -
State         : Up
```

Table 1 Command output

Field	Description
Name	Name of the static SRLSP or adjacency segment.
Type	Information type: • **LSP**—Static SRLSP information. • **Adjacency**—Adjacency segment information.
In-Label	Incoming label.
Out-Label	Outgoing label.
Out-Interface	Output interface.

Field	Description
Nexthop	Next hop address.
State	Status of the static SRLSP or adjacency segment: • **Down**—The static SRLSP or adjacency segment is not available. • **Up**—The static SRLSP or adjacency segment is available.

Related commands

```
static-sr-mpls adjacency
static-sr-mpls lsp
```

display mpls static-sr-mpls prefix

Use **display mpls static-sr-mpls prefix** to display static prefix segment information.

Syntax

display mpls static-sr-mpls prefix [**path** *lsp-name* | **destination** *ip-address* [*mask* | *mask-length*]]

Views

Any view

Predefined user roles

network-admin

network-operator

Parameters

path *lsp-name*: Displays static prefix segment information for the specified static SRLSP. The *lsp-name* argument specifies a static SRLSP by its name, a case-sensitive string of 1 to 15 characters.

destination *ip-address*: Displays static prefix segment information for the specified destination address. The *ip-address* argument specifies a destination address.

mask: Specifies the destination address mask.

mask-length: Specifies the mask length, in the range of 0 to 32.

Usage guidelines

If you do not specify any parameters, this command displays information about all static prefix segments.

Examples

Display information about all static prefix segments.

```
<Sysname> display mpls static-sr-mpls prefix
Prefix Name    : prefixname
Destination    : 2.2.2.2/32
In-Label       : 1024
Active         : Yes(1)
Out-Interface  : Vlan2
Nexthop        : 10.0.0.2
Out-Label      : 600000
Status         : up
Out-Interface  : Vlan3
```

```
Nexthop         : 11.0.0.2
Out-Label       : 600002
Status          : down(No Route)
Out-Interface   : Vlan4
Nexthop         : 12.0.0.2
Out-Label       : 600001
Status          : down(No Mpls)
```

Table 2 Command output

Field	Description
Prefix Name	Name of the prefix segment.
Destination	Destination IP address of the prefix segment.
In-Label	Incoming label of the prefix segment.
Active	Status of the prefix segment: • **Yes(**_count_**)**—The prefix segment is active. The value of _count_ represents the number of egresses in **up** status. • **No**—The prefix segment is inactive.
Out-Interface	Outgoing interface of the prefix segment.
Nexthop	Next hop of the prefix segment.
Out-Label	Outgoing label of the prefix segment.
Status	Status of the egress: • **down**—The egress is inactive. The cause is displayed in brackets, which can be **No Route** or **No Mpls**. **No Route** means that the device has no route to reach the destination IP address over the outgoing interface. **No Mpls** means that MPLS is disabled on the output interface. • **up**—The egress is active. • **duplicate**—An egress conflict has occurred because the output interface is already used by another prefix segment.

Related commands

```
static-sr-mpls prefix
```

mpls te static-sr-mpls

Use **mpls te static-sr-mpls** to bind a static SRLSP to an MPLS TE tunnel interface.

Use **undo mpls te static-sr-mpls** to unbind a static SRLSP from an MPLS TE tunnel interface.

Syntax

```
mpls te static-sr-mpls lsp-name [ backup ]
```

```
undo mpls te static-sr-mpls lsp-name
```

Default

An MPLS TE tunnel interface does not use any static SRLSPs.

Views

Tunnel interface view

Predefined user roles

network-admin

3

Parameters

> *lsp-name*: Specifies a static SRLSP by its name, a case-sensitive string of 1 to 15 characters. The specified static SRLSP must be already created by using the **static-sr-mpls lsp** command.

> **backup**: Specifies the backup static SRLSP. If you do not specify this keyword, this command specifies the main static SRLSP.

Usage guidelines

> Execute this command only on the ingress node of a static SRLSP.

> This command takes effect only if you have configured the **mpls te signaling static** command in tunnel interface view.

> 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.

> If you execute both the **mpls te static-sr-mpls** and **mpls te static-cr-lsp** commands on the device, only the **mpls te static-cr-lsp** command takes effect. For the **mpls te static-sr-mpls** command to take effect, execute the **undo mpls te static-cr-lsp** command.

Examples

> # Bind static SRLSP **static-sr-3** to MPLS TE tunnel interface 0.

```
<Sysname> system-view
[Sysname] interface tunnel 0 mode mpls-te
[Sysname-Tunnel0] mpls te static-sr-mpls static-sr-3
```

Related commands

> **display mpls te tunnel-interface** (*MPLS Command Reference*)

> **mpls te signaling** (*MPLS Command Reference*)

> **mpls te static-cr-lsp** (*MPLS Command Reference*)

> **static-sr-mpls lsp**

static-sr-mpls adjacency

> Use **static-sr-mpls adjacency** to configure an adjacency segment for static MPLS SR.

> Use **undo static-sr-mpls adjacency** to delete an adjacency segment.

Syntax

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

> **undo static-sr-mpls adjacency** *adjacency-path-name*

Default

> No adjacency segments exist.

Views

> System view

Predefined user roles

> network-admin

Parameters

*adjacency-path-*name: Specifies the adjacency segment name, a case-sensitive string of 1 to 15 characters.

in-label *label-value*: Specifies the incoming label, in the range of 16 to 15999.

nexthop *ip-address*: Specifies the next hop address.

outgoing-interface *interface-type interface-number*: Specifies an output interface by its type and number. The output interface must be a P2P interface.

Usage guidelines

Execute this command on all nodes of a static SRLSP.

If you specify the next hop address, make sure the following requirements are met:

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

If you specify an output interface, make sure the following requirements are met:

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

The incoming label specified by this command must be different 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.

Examples

Configure an adjacency segment named **adj1**. Set the incoming label to 100 and the next hop address to 12.2.1.2.

```
<Sysname> system-view
[Sysname] static-sr-mpls adjacency adj1 in-label 100 nexthop 12.2.1.2
```

Related commands

display static-sr-mpls

static-sr-mpls lsp

static-sr-mpls lsp

Use **static-sr-mpls lsp** to configure a static SRLSP.

Use **undo static-sr-mpls lsp** to delete a static SRLSP.

Syntax

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

undo static-sr-mpls lsp *lsp-name*

Default

No static SRLSPs exist.

Views

System view

Predefined user roles

network-admin

Parameters

lsp-name: Specifies the static SRLSP name, a case-sensitive string of 1 to 15 characters.

out-label *out-label-value*&<1-8>: Specifies a space-separated list of up to 8 outgoing labels, corresponding to the labels from top to bottom in the label stack. The value range for the *out-label-value* argument is 0, 3, and 16 to 1048575.

Usage guidelines

Execute this command only on the ingress node of a static SRLSP.

The outgoing labels represent an ordered list of labels allocated for the adjacencies or nodes that a static SRLSP traverses. The top label is the label that the ingress node allocates for the adjacency or destination prefix.

Examples

Configure a static SRLSP named **lsp1**. Specify outgoing labels 100 and 200 for the SRLSP.

```
<Sysname> system-view
[Sysname] static-sr-mpls lsp lsp1 out-label 100 200
```

Related commands

static-sr-mpls adjacency

static-sr-mpls prefix

Use **static-sr-mpls prefix** to configure a prefix segment for static MPLS SR.

Use **undo static-sr-mpls prefix** to delete a prefix segment.

Syntax

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

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

Default

No prefix segments exist.

Views

System view

Predefined user roles

network-admin

Parameters

prefix-path-name: Specifies the prefix segment name, a case-sensitive string of 1 to 15 characters.

destination *ip-address*: Specifies the destination IP address.

mask: Specifies the mask.

mask-length: Specifies the mask length, in the range of 0 to 32.

in-label *label-value*: Specifies the incoming label, in the range of 16000 to 24000.

nexthop *ip-address*: Specifies the next hop address.

outgoing-interface *interface-type interface-number*: Specifies an output interface by its type and number. The output interface must be a P2P interface.

out-label *out-label-value*: Specifies the outgoing label, in the range of 0, 3, and 16 to 1048575.

Usage guidelines

Execute this command on all nodes of a static SRLSP.

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 hops or output interfaces. To avoid configuration failure, make sure all prefix segments use the same prefix segment name, and incoming label.

If you specify only the *prefix-path-name* argument, the **undo static-sr-mpls prefix** command deletes all prefix segments with the specified name. If you specify all parameters, only the prefix segment that matches the specified name, destination IP address, and next hop or output interface is deleted.

Examples

Configure a prefix segment named **prefix1**. Set the destination IP address, incoming label, outgoing label, and next hop to 2.2.2.2, 16000, 16001, and 10.0.0.2, respectively.

```
<Sysname> system-view
[Sysname] static-sr-mpls prefix prefix1 destination 2.2.2.2 32 in-label 16000 nexthop
10.0.0.2 out-label 16001
```

Related commands

display mpls static-sr-mpls prefix