L Commands

This chapter describes the Cisco NX-OS Multiprotocol Label Switching commands that begin with L.

label allocate global

To configure local label allocation filters for the Multiprotocol Label Switching (MPLS) Label Distribution Protocol (LDP), use the **label allocate global** command. To return to the default setting, use the **no** form of this command.

label allocate global {**all-routes** | **host-routers** | **prefix-list** *prefix-list*}

no label allocate global {**all-routes** | **host-routers** | **prefix-list** *prefix-list*}

Syntax Description		
	all-routes	Specifies the allocation local labels for all routes.
	host-routes	Specifies the allocation local labels for host routes only.
	prefix-list	Specifies the prefix list for local label filtering.
	prefix-list	IP prefix list.

Defaults   None

Command Modes   LDP configuration mode

SupportedUserRoles   network-admin
vdc-admin

Command History

Release	Modification
5.2(1)	This command was introduced.

Usage Guidelines   This command requires the MPLS Services license.

Examples   This example shows how to configure local label allocation filters for MPLS LDP:

```
switch# configure terminal
switch(config)# mpls ldp configuration
switch(config-ldp)# label allocate global prefix-list p1
switch(config-ldp)#
```

Related Commands

Command	Description
mpls ldp configuration	Configures the Multiprotocol Label Switching (MPLS) Label Distribution Protocol (LDP).

link-management timers

To configure the link management hold timers, use the **link-management timers** command. To return to the default setting, use the **no** form of this command.

>**link-management timers** {**bandwidth-hold** *sec* | **periodic-flooding** *sec*}

>**no link-management timers**

Syntax Description

bandwidth-hold	Specifies the length of time that bandwidth is held for an RSVP path (setup) message while you wait for the corresponding RSVP Resv message to come back.
sec	Seconds. The range is from 1 to 300 seconds.
period-flooding	Specifies the link state information changes that do not trigger immediate action. For example, a change to the amount of allocated bandwidth that does not cross a threshold.
sec	Seconds. The range is from 0 to 3600 seconds. A value of 0 turns off periodic flooding. If you set this value from 1 to 29, it is treated as 30.

Defaults

Bandwidth hold is 15 seconds

Periodic flooding is 60 seconds

Command Modes

TE configuration mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.2(1)	This command was introduced.

Usage Guidelines

This command requires the MPLS Services license.

Examples

This example shows how to configure the link management bandwidth hold timer:

```
switch# configure terminal
switch(config)# mpls traffic-eng configuration
switch(config-te)# link management timers bandwidth-hold 200
switch(config-te)#
```

Related Commands	Command	Description
	mpls traffic-eng configuration	Configures the Multiprotocol Label Switching (MPLS) Traffic Engineering Protocol (MPLS-TE).

list (LSP attribute configuration mode)

To display the contents of the label switched path (LSP) attribute list, use the **list** command.

list

Syntax Description   This command has no arguments or keywords.

Command Modes   LSP attribute configuration mode

SupportedUserRoles   network-admin
vdc-admin

Command History

Release	Modification
5.2(1)	This command was introduced.

Usage Guidelines   This command requires the MPLS Services license.

Examples   This example shows how to display the content of the LSP attribute list:

```
switch# configure terminal
switch(config)# mpls traffic-eng configuration
switch(config-te)# lsp attributes 1
switch(config-lsp-attr)# list
```

Related Commands

Command	Description
mpls traffic-eng configuration	Configures the Multiprotocol Label Switching (MPLS) Traffic Engineering Protocol (MPLS-TE).

list (TE explicit-path configuration mode)

To display the contents of the explicit-path entries, use the **list** command.

list

Syntax Description   This command has no arguments or keywords.

Command Modes   TE explicit-path configuration mode

SupportedUserRoles   network-admin
vdc-admin

Command History

Release	Modification
5.2(1)	This command was introduced.

Usage Guidelines   This command requires the MPLS Services license.

Examples   This example shows how to display the content of the LSP attribute list:

```
switch# configure terminal
switch(config)# mpls traffic-eng configuration
switch(config-te)# explicit-path name test
switch(config-lsp-attr)# list
```

Related Commands

Command	Description
mpls traffic-eng configuration	Configures the Multiprotocol Label Switching (MPLS) Traffic Engineering Protocol (MPLS-TE).

load-interval

To configure the interval over which the input and output rates for the interface are averaged, use the **load-interval** command. To restore the system to its default condition, use the **no** form of this command.

> **load-interval** *seconds*

> **no load-interval**

Syntax Description

seconds	Length of time for which data is used to compute load statistics. The value is a multiple of 30, from 120 to 300 (120, 150, 180, and so on).

Defaults   300

Command Modes   Interface configuration mode

SupportedUserRoles network-admin
vdc-admin

Command History

Release	Modification
5.2(1)	This command was introduced.

Usage Guidelines

For a **tunnel-te interface**, the bandwidth command configures the initial tunnel bandwidth, which then can be adjusted by the auto bandwidth mechanism based on interface traffic statistics The load-interval command specifies how often the interface traffic statistics are calculated.

Examples

This example shows how to configure the interval over which the input and output rates for the interface are averaged:

```
switch# configure terminal
switch(config)# interface tunnel-te 1
switch(config-if-te)# load-interval 180
switch(config-if-te)#
```

Related Commands

Command	Description
interface tunnel-te	Configures the traffic engineering (TE) interface.

lockdown

To disable reoptimization of the label switched path (LSP), use the **lockdown** command. To restore the system to its default condition, use the **no** form of this command.

lockdown

no lockdown

Syntax Description   This command has no arguments or keywords.

Command Modes   LSP attribute configuration mode

SupportedUserRoles   network-admin
vdc-admin

Command History

Release	Modification
5.2(1)	This command was introduced.

Usage Guidelines   This command requires the MPLS Services license.

Examples   This example shows how to disable reoptimization of the LSP:

```
switch# configure terminal
switch(config)# mpls traffic-eng configuration
switch(config-te)# lsp attributes 1
switch(config-lsp-attr)# lockdown
```

Related Commands

Command	Description
mpls traffic-eng configuration	Configures the Multiprotocol Label Switching (MPLS) Traffic Engineering Protocol (MPLS-TE).

logging lsp

To log label switched path (LSP) traps, use the **logging lsp** command. To return to the default setting, use the **no** form of this command.

logging lsp {**path-errors** | **preemption** | **reservation-errors** | **setups** | **teardowns**} [*prefix-list*]

no logging lsp {**path-errors** | **preemption** | **reservation-errors** | **setups** | **teardowns**}

Syntax Description

path-errors	Specifies to log LSP path error traps.
preemption	Specifies to log LSP preemption traps.
reservation-errors	Specifies to log LSP reservation error traps.
setups	Specifies to log LSP establishment traps.
teardowns	Specifies to log LSP teardown traps.
prefix-list	(Optional) Prefix list.

Command Modes

TE configuration mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.2(1)	This command was introduced.

Usage Guidelines

This command requires the MPLS Services license.

Examples

This example shows how to log LSP path error traps:

```
switch# configure terminal
switch(config)# mpls traffic-eng configuration
switch(config-te)# logging lsp path-errors prefix-list1
switch(config-te)#
```

Related Commands

Command	Description
mpls traffic-eng configuration	Configures the Multiprotocol Label Switching (MPLS) Traffic Engineering Protocol (MPLS-TE).

logging neighbor-changes

To log Label Distribution Protocol (LDP) neighbor state changes, use the **logging neighbor-changes** command. To return to the default setting, use the **no** form of this command.

logging neighbor-changes

no logging neighbor-changes

Syntax Description	This command has no arguments or keywords.

Defaults	None

Command Modes	LDP configuration mode

SupportedUserRoles	network-admin vdc-admin

Command History	Release	Modification
	5.2(1)	This command was introduced.

Usage Guidelines	This command requires the MPLS Services license.

Examples	This example shows how to log Label Distribution Protocol (LDP) neighbor state changes:

```
switch# configure terminal
switch(config)# mpls ldp configuration
switch(config-ldp)# logging neighbor-changes
switch(config-ldp)#
```

Related Commands	Command	Description
	mpls ldp configuration	Configures the Multiprotocol Label Switching (MPLS) Label Distribution Protocol (LDP).

logging password configuration

To enable the display of events related to password configuration changes, use the **logging password configuration** command. To return to the default setting, use the **no** form of this command.

logging password configuration [**rate-limit** *number*]

no logging password configuration [**rate-limit** *number*]

Syntax Description

rate-limit	(Optional) Specifies rate limit logging.
number	(Optional) Messages per minute. The range is from 1 to 60 messages per minute.

Defaults

None

Command Modes

LDP configuration mode

SupportedUserRoles

network-admin
vdc-admin

Command History

Release	Modification
5.2(1)	This command was introduced.

Usage Guidelines

This command requires the MPLS Services license.

Examples

This example shows how to enable the display of events related to password changes:

```
switch# configure terminal
switch(config)# mpls ldp configuration
switch(config-ldp)# logging password configuration rate-limit 20
switch(config-ldp)#
```

Related Commands

Command	Description
mpls ldp configuration	Configures the Multiprotocol Label Switching (MPLS) Label Distribution Protocol (LDP).

logging password rollover

To enable password rollover events, use the **logging password rollover** command. To return to the default setting, use the **no** form of this command.

logging password rollover [**rate-limit** *number*]

no logging password rollover [**rate-limit** *number*]

Syntax Description		
	rate-limit	(Optional) Specifies the rate limit logging.
	number	(Optional) Messages per minute. The range is from 1 to 60 messages per minute.

Defaults   None

Command Modes   LDP configuration mode

SupportedUserRoles   network-admin
vdc-admin

Command History	Release	Modification
	5.2(1)	This command was introduced.

Usage Guidelines   This command requires the MPLS Services license.

Examples   This example shows how to enable password rollover events:

```
switch# configure terminal
switch(config)# mpls ldp configuration
switch(config-ldp)# logging password rollover rate-limit 10
switch(config-ldp)#
```

Related Commands	Command	Description
	mpls ldp configuration	Configures the Multiprotocol Label Switching (MPLS) Label Distribution Protocol (LDP).

logging tunnel

To configure the tunnel specific traps logging, use the **logging tunnel** command. To return to the default setting, use the **no** form of this command.

> **logging tunnel** {**lsp-selection** | **path change**} [*prefix-list*]

> **no logging tunnel** {**lsp-selection** | **path change**}

Syntax Description

lsp-selection	Specifies the log tunnel LSP selection traps.
path change	Specifies the log tunnel LSP path change traps.
prefix-list	(Optional) Prefix list.

Command Modes   TE configuration mode

SupportedUserRoles   network-admin
vdc-admin

Command History

Release	Modification
5.2(1)	This command was introduced.

Usage Guidelines   This command requires the MPLS Services license.

Examples   This example shows how to specify the log tunnel LSP selection traps.

```
switch# configure terminal
switch(config)# mpls traffic-eng configuration
switch(config-te)# logging tunnel lsp-selection prefix-list1
switch(config-te)#
```

Related Commands

Command	Description
mpls traffic-eng configuration	Configures the Multiprotocol Label Switching (MPLS) Traffic Engineering Protocol (MPLS-TE).

lsp attribute

To configure an label switched path (LSP) attribute list, use the **lsp attribute** command.

lsp attribute *string*

Syntax Description		
string	LSP attribute list that can be any case-sensitive, alphanumeric string up to 63 characters.	

Defaults None

Command Modes TE configuration mode

SupportedUserRoles network-admin
vdc-admin

Command History	Release	Modification
	5.2(1)	This command was introduced.

Usage Guidelines This command requires the MPLS Services license.

Examples This example shows how to configure an LSP attribute list:

```
switch# configure terminal
switch(config)# mpls traffic-eng configuration
switch(config-te)# lsp attribute 1
switch(config-lsp-attr)#
```

Related Commands	Command	Description
	mpls traffic-eng configuration	Configures the Multiprotocol Label Switching (MPLS) Traffic Engineering Protocol (MPLS-TE).