Contents

DLDP commands

display dldp

Use **display dldp** to display DLDP configuration.

Syntax

display dldp [**interface** *interface-type interface-number*]

Views

Any view

Predefined user roles

network-admin

network-operator

Parameters

interface *interface-type interface-number*: Specifies an interface by its type and number. If you do not specify this option, the command displays global and port-specific DLDP configuration.

Examples

Display global and port-specific DLDP configuration.

```
<Sysname> display dldp
 DLDP global status: Enabled
 DLDP advertisement interval: 5s
 DLDP authentication-mode: Simple
 DLDP authentication-password: ******
 DLDP unidirectional-shutdown mode: Auto
 DLDP delaydown-timer value: 1s
 Number of enabled ports: 2

Interface Ten-GigabitEthernet1/0/1
 DLDP port state: Bidirectional
 DLDP port unidirectional-shutdown mode: None
 DLDP initial-unidirectional-delay: 100s
 Number of the port's neighbors: 1
  Neighbor MAC address: 0023-8956-3600
  Neighbor port index: 79
  Neighbor state: Confirmed
  Neighbor aged time: 13s
  Neighbor echo time: -

Interface Ten-GigabitEthernet1/0/2
 DLDP port state: Inactive
 DLDP port unidirectional-shutdown mode: None
 DLDP initial-unidirectional-delay: 100s
 Number of the port's neighbors: 0 (Maximum number ever detected: 1)
```

Display the DLDP configuration of Ten-GigabitEthernet 1/0/1.

```
<Sysname> display dldp interface ten-gigabitethernet 1/0/1
Interface Ten-GigabitEthernet1/0/1
 DLDP port state: Bidirectional
 DLDP port unidirectional-shutdown mode: None
 DLDP initial-unidirectional-delay: 100s
 Number of the port's neighbors: 1
  Neighbor MAC address: 0023-8956-3600
  Neighbor port index: 79
  Neighbor state: Confirmed
  Neighbor aged time: 13s
  Neighbor echo time: -
```

Table 1 Command output

Field	Description
DLDP global status	Global DLDP state (Enabled or Disabled).
DLDP advertisement interval	Interval for sending Advertisement packets (in seconds) to maintain neighbor relations.
DLDP authentication-mode	DLDP authentication mode (None, Simple, or MD5).
DLDP authentication-password	Password for DLDP authentication: • ******—The password has been configured. • **Not configured**—The authentication mode has been configured but no password is configured.
DLDP unidirectional-shutdown mode	Global port shutdown mode (auto, manual, or hybrid) after unidirectional links are detected.
DLDP port unidirectional-shutdown mode	Port shutdown mode for the interface (auto, manual, or hybrid) after unidirectional links are detected. If no port shutdown mode is configured for an interface, this field displays **None**.
DLDP delaydown-timer value	Setting of the DelayDown timer, in seconds.
Number of enabled ports	Number of the DLDP-enabled ports.
Interface	Index of a DLDP-enabled port.
DLDP port state	DLDP state on a port: • **Bidirectional**. • **Inactive**. • **Initial**. • **Unidirectional**.
DLDP initial-unidirectional-delay	Delay time in seconds for DLDP to block the interface upon an Initial-to-Unidirectional state transition.
Number of the port's neighbors	Current number of neighbors.
Maximum number ever detected	Maximum number of neighbors once detected on the port. This field appears only when the current number of neighbors is different from the maximum number of neighbors once detected.
Neighbor MAC address	Bridge MAC address of the device where the neighbor resides.
Neighbor port index	Neighbor port index.
Neighbor state	Neighbor state (Confirmed or Unconfirmed).
Neighbor aged time	Neighbor aging time.
Neighbor echo time	Number of seconds remaining before the Echo timer expires.

Field	Description
	The Echo timer starts when the Entry timer expires. The neighbor information is deleted when the Echo timer expires. A hyphen (-) indicates that the Echo timer has not started.

display dldp statistics

Use **display dldp statistics** to display DLDP packet statistics.

Syntax

display dldp statistics [**interface** *interface-type interface-number*]

Views

Any view

Predefined user roles

network-admin

network-operator

Parameters

interface *interface-type interface-number*: Specifies an interface by its type and number. If you do not specify this option, the command displays DLDP packet statistics for all interfaces.

Examples

Display DLDP packet statistics for all interfaces.

```
<Sysname> display dldp statistics
Interface Ten-GigabitEthernet1/0/1
 Packets sent: 6
 Packets received: 5
 Invalid packets received: 2
 Loopback packets received: 0
 Authentication-failed packets received: 0
 Valid packets received: 3

Interface Ten-GigabitEthernet1/0/2
 Packets sent: 7
 Packets received: 7
 Invalid packets received: 3
 Loopback packets received: 0
 Authentication-failed packets received: 0
 Valid packets received: 4
```

Table 2 Command output

Field	Description
Interface	Port index.
Packets sent	Total number of DLDP packets sent.
Packets received	Total number of DLDP packets received.

Field	Description
Invalid packets received	Number of the invalid packets received.
Loop packets received	Number of the loopback packets received.
Authentication failed packets received	Number of the received packets that failed to pass the authentication.
Valid packets received	Number of the valid packets received.

Related commands

reset dldp statistics

dldp authentication-mode

Use **dldp authentication-mode** to configure DLDP authentication.

Use **undo dldp authentication-mode** to restore the default.

Syntax

dldp authentication-mode { **md5** | **none** | **simple** }

undo dldp authentication-mode

Default

DLDP authentication mode is **none**.

Views

System view

Predefined user roles

network-admin

Parameters

md5: Specifies the MD5 authentication mode.

none: Specifies not to perform authentication.

simple: Specifies the plaintext authentication mode.

Usage guidelines

To enable DLDP to operate correctly, make sure the DLDP authentication modes and the passwords configured on the two ends of a link are the same.

If you do not configure the authentication password after you configure the authentication mode, the authentication mode is **none** no matter which authentication mode you configure.

Examples

Configure to perform plaintext authentication and set the password to **abc** (assuming that Device A and Device B are connected by a DLDP link).

- Configure Device A:

  ```
  <DeviceA> system-view
  [DeviceA] dldp authentication-mode simple
  [DeviceA] dldp authentication-password simple abc
  ```

- Configure Device B:

  ```
  <DeviceB> system-view
  ```

```
[DeviceB] dldp authentication-mode simple
[DeviceB] dldp authentication-password simple abc
```

Related commands

display dldp

dldp authentication-password

dldp authentication-password

Use **dldp authentication-password** to configure the password for DLDP authentication.

Use **undo dldp authentication-password** to restore the default.

Syntax

dldp authentication-password { **cipher** | **simple** } *string*

undo dldp authentication-password

Default

No DLDP authentication password is configured.

Views

System view

Predefined user roles

network-admin

Parameters

cipher: Specifies a password in encrypted form.

simple: Specifies a password in plaintext form. For security purposes, the password specified in plaintext form will be stored in encrypted form.

string: Specifies the password. Its plaintext form is a case-sensitive string of 1 to 16 characters. Its encrypted form is a case-sensitive string of 1 to 53 characters.

Usage guidelines

To enable DLDP to operate correctly, make sure the DLDP authentication modes and the passwords configured on the two ends of a link are the same.

If you do not configure the authentication password after you configure the authentication mode, the authentication mode is **none** no matter which authentication mode you configure.

Examples

Configure to perform plaintext authentication and set the password to **abc** (assuming that Device A and Device B are connected by a DLDP link).

- Configure Device A:

```
<DeviceA> system-view
[DeviceA] dldp authentication-mode simple
[DeviceA] dldp authentication-password simple abc
```

- Configure Device B:

```
<DeviceB> system-view
[DeviceB] dldp authentication-mode simple
[DeviceB] dldp authentication-password simple abc
```

Related commands

display dldp

dldp authentication-mode

dldp delaydown-timer

Use **dldp delaydown-timer** to set the DelayDown timer.

Use **undo dldp delaydown-timer** to restore the default.

Syntax

dldp delaydown-timer *time*

undo dldp delaydown-timer

Default

The setting of the DelayDown timer is 1 second.

Views

System view

Predefined user roles

network-admin

Parameters

time: Specifies the DelayDown timer in the range of 1 to 5 seconds.

Usage guidelines

The DelayDown timer configured by using this command applies to all DLDP-enabled ports.

Examples

Set the DelayDown timer to 2 seconds.

```
<Sysname> system-view
[Sysname] dldp delaydown-timer 2
```

Related commands

display dldp

dldp enable

Use **dldp enable** to enable DLDP on a port.

Use **undo dldp enable** to restore the default.

Syntax

dldp enable [**initial-unidirectional-delay** *time*]

undo dldp enable

Default

DLDP is disabled on a port, and when DLDP is enabled, a port is blocked immediately upon an Initial-to-Unidirectional state transition.

Views

Layer 2 Ethernet interface view

Layer 3 Ethernet interface view

Predefined user roles

network-admin

Parameters

`initial-unidirectional-delay` *`time`*: Specifies the delay time for DLDP to block a port upon an Initial-to-Unidirectional state transition. The value range for the *`time`* argument is 60 to 300 seconds. If you do not specify this option, DLDP blocks the port immediately upon an Initial-to-Unidirectional state transition.

Usage guidelines

DLDP can take effect only after you enable it globally and on a port.

When enabling DLDP on a port, you can set the delay time for DLDP to block the port upon an Initial-to-Unidirectional state transition. If the port does not enter Bidirectional state when the delay time expires, DLDP blocks the port.

Examples

Enable DLDP globally, and enable DLDP on Ten-GigabitEthernet 1/0/1 and set a delay time of 100 seconds for DLDP to block the port upon an Initial-to-Unidirectional state transition.

```
<Sysname> system-view
[Sysname] dldp global enable
[Sysname] interface ten-gigabitethernet 1/0/1
[Sysname-Ten-GigabitEthernet1/0/1] dldp enable initial-unidirectional-delay 100
```

Related commands

`display dldp`

`dldp global enable`

dldp global enable

Use **`dldp global enable`** to enable DLDP globally.

Use **`undo dldp global enable`** to disable DLDP globally.

Syntax

`dldp global enable`

`undo dldp global enable`

Default

DLDP is disabled globally.

Views

System view

Predefined user roles

network-admin

Usage guidelines

DLDP can take effect only after you enable it globally and on a port.

Examples

Enable DLDP globally.

```
<Sysname> system-view
```

```
[Sysname] dldp global enable
```

Related commands

> **display dldp**
>
> **dldp enable**

dldp interval

Use **dldp interval** to set the interval for sending Advertisement packets.

Use **undo dldp interval** to restore the default.

Syntax

> **dldp interval** *interval*
>
> **undo dldp interval**

Default

The interval for sending Advertisement packets is 5 seconds.

Views

System view

Predefined user roles

network-admin

Parameters

interval: Specifies Advertisement packets sending interval in the range of 1 to 100 seconds.

Usage guidelines

This command applies to all DLDP-enabled ports.

To enable DLDP to operate correctly, make sure the intervals for sending Advertisement packets configured on the two ends of a link are the same.

Examples

Set the interval for sending Advertisement packets to 20 seconds.

```
<Sysname> system-view
[Sysname] dldp interval 20
```

Related commands

> **display dldp**

dldp port unidirectional-shutdown

Use **dldp port unidirectional-shutdown** to set the port shutdown mode for an interface.

Use **undo dldp port unidirectional-shutdown** to restore the default.

Syntax

> **dldp port unidirectional-shutdown { auto | hybrid|manual }**
>
> **undo dldp port unidirectional-shutdown**

Default

The global setting is used.

Views

Layer 2 Ethernet interface view

Layer 3 Ethernet interface view

Predefined user roles

network-admin

Parameters

`auto`: Specifies the auto mode. In this mode, when DLDP detects a unidirectional link, it shuts down the unidirectional port. When the link becomes bidirectional, DLDP brings up the port that was shut down.

`hybrid`: Specifies the hybrid mode. In this mode, when DLDP detects a unidirectional link, it shuts down the unidirectional port and stops link detection. To verify the link status, use the `undo shutdown` command to bring up the port. If the link becomes bidirectional, the port becomes bidirectional.

`manual`: Specifies the manual mode. In this mode, when DLDP detects a unidirectional link, it does not shut down the involved port. You must manually shut it down. To verify the link status, use the `undo shutdown` command to bring up the port. If the link becomes bidirectional, the port becomes bidirectional.

Usage guidelines

If DLDP detects a unidirectional link, you must troubleshoot the interface and cabling faults.

The port shutdown mode setting for an interface takes effect only on the current interface and has priority over the global port shutdown mode setting.

Examples

Set the port shutdown mode to **manual** for Ten-GigabitEthernet 1/0/1.

```
<Sysname> system-view
[Sysname] interface ten-gigabitethernet 1/0/1
[Sysname-Ten-GigabitEthernet1/0/1] dldp port unidirectional-shutdown manual
```

Related commands

display dldp

dldp unidirectional-shutdown

dldp unidirectional-shutdown

Use `dldp unidirectional-shutdown` to set the global port shutdown mode.

Use `undo dldp unidirectional-shutdown` to restore the default.

Syntax

`dldp unidirectional-shutdown { auto | hybrid | manual }`

`undo dldp unidirectional-shutdown`

Default

The global port shutdown mode is auto mode.

Views

System view

Predefined user roles

network-admin

Parameters

auto: Specifies the auto mode. In this mode, when DLDP detects a unidirectional link, it shuts down the unidirectional port. When the link becomes bidirectional, DLDP brings up the port that was shut down.

hybrid: Specifies the hybrid mode. In this mode, when DLDP detects a unidirectional link, it shuts down the unidirectional port and stops link detection. To verify the link status, use the **undo shutdown** command to bring up the port. If the link becomes bidirectional, the port becomes bidirectional.

manual: Specifies the manual mode. In this mode, when DLDP detects a unidirectional link, it does not shut down the involved port. You must manually shut it down. To verify the link status, use the **undo shutdown** command to bring up the port. If the link becomes bidirectional, the port becomes bidirectional.

Usage guidelines

If DLDP detects a unidirectional link, you must troubleshoot the interface and cabling faults.

The global port shutdown mode setting takes effect on all interfaces and has lower priority than the port shutdown mode setting for an interface.

Examples

Set the global port shutdown mode to manual mode.

```
<Sysname> system-view
[Sysname] dldp unidirectional-shutdown manual
```

Related commands

display dldp

dldp port unidirectional-shutdown

reset dldp statistics

Use **reset dldp statistics** to clear DLDP packet statistics.

Syntax

reset dldp statistics [**interface** *interface-type interface-number*]

Views

User view

Predefined user roles

network-admin

Parameters

interface *interface-type interface-number*: Specifies an interface by its type and number. If you do not specify this option, the command clears DLDP packet statistics for all interfaces.

Examples

Clear DLDP packet statistics for all interfaces.

```
<Sysname> reset dldp statistics
```

Related commands

display dldp statistics