

LLDP Configuration Commands

Table of Contents

Chapter 1 LLDP Configuration Commands	1
1.1 LLDP Commands	1
1.1.1 lldp run	1
1.1.2 lldp holdtime.....	2
1.1.3 lldp timer	2
1.1.4 lldp reinit.....	3
1.1.5 lldp tlv-select	4
1.1.6 lldp transmit.....	5
1.1.7 lldp receive.....	6
1.1.8 Show lldp errors.....	6
1.1.9 Show lldp interface	7
1.1.10 show lldp neighbors	8
1.1.11 Show lldp neighbors detail	9
1.1.12 Show lldp traffic	12
1.1.13 clear lldp counters	12
1.1.14 clear lldp table	13
1.1.15 debug lldp errors.....	14
1.1.16 debug lldp events	14
1.1.17 debug lldp packets.....	15
1.1.18 debug lldp states	16

Chapter 1 LLDP Configuration Commands

1.1 LLDP Commands

1.1.1 lldp run

Description

lldp run

no lldp run

To start up LLDP, run **lldp run**; to shut down LLDP, run **no lldp run**.

Parameter

None

Default value

Shut down

Description

None

Command mode

Global configuration mode

Example

The following command is used to start up LLDP.

```
Switch_config# lldp run
```

1.1.2 lldp holdtime

Description

lldp holdtime *time*

no lldp holdtime

To configure the ttl value of LLDP, run **lldp holdtime** *time*. To resume the default transmission delay, run **no lldp holdtime**.

Parameter

Parameter	Description
<i>time</i>	Holdtime of the to-be-transmitted packet Value range: 0-65535 seconds

Default value

120s

Explanation

None

Command mode

Global configuration mode

Example

The following example shows how to set the ttl value of LLDP to 100 seconds.

```
Switch_config# lldp holdtime 100
```

```
Switch_config#
```

1.1.3 lldp timer

Description

lldp timer *time*

no lldp timer

To configure the transmission delay of LLDP, run **lldp timer** *time*. To resume the default transmission delay, run **no lldptimer**.

Parameter

Parameter	Description
<i>time</i>	Interval for LLDP to transmit the packets Value range: 5-65534 seconds

Default value

30s

Explanation

The transmission interval of the LLDP message must be shorter than its storage time, ensuring multiple updates in the storage time and preventing error which is led by packet loss.

Command mode

Global configuration mode

Example

The following example shows how to configure the transmission interval of LLDP to 24 seconds.

```
Switch_config# lldp timer 24
Switch_config#
```

1.1.4 lldp reinit**Description****lldp reinit *time*****no lldp reinit**

To configure the transmission delay of LLDP, run **lldp reinit time**. To resume the default transmission delay, run **no lldp reinit**.

Parameter

Parameter	Description
<i>time</i>	Transmission delay of LLDP, whose values range from two to five seconds Value range: 2-5 seconds

Default value

2 s

Explanation

None

Command mode

Global configuration mode

Example

The following example shows how to set the transmission delay of LLDP to five seconds.

```
Switch_config# lldp reinit 5
Switch_config#
```

1.1.5 lldp tlv-select**Description**

lldp tlv-select *tlv-type*

no lldp tlv-select *tlv-type*

To add TLV which is transmitted by the LLDP message, run **lldp tlv-select** *tlv-type*. To delete TLV which is transmitted by the LLDP message, run **no lldp tlv-select** *tlv-type*.

Parameter

Parameter	Description
<i>tlv-type</i>	TLV that can be sent or not whose values are: macphy-config ,management-address port-description ,port-vlan ,system-capabilities system-description ,system-name

Default value

All TLVs are sent.

Explanation

Three mandatory TLVs must be sent.

Command mode

Global configuration mode

Example

The following example shows how to enable the port description not to be transmitted in the message.

```
Switch_config#no lldp tlv-select port-description
Switch_config#
```

1.1.6 lldp transmit**Description**

lldp transmit

no lldp transmit

To set the port to send the LLDP message, run **lldp transmit**. To forbid receiving the LLDP message, run **no lldp transmit**.

Parameter

None

Default value

Transmittable LLDP message mode

Explanation

Only after the LLDP module is started can the command be valid.

Command mode

Port configuration mode

Example

The following example shows how to set port f0/0 not to send the LLDP message.

```
Switch_config_f0/0# no lldp transmit
Switch_config_f0/0#
```

1.1.7 lldp receive

Description

lldp receive

no lldp receive

To set the port to the receivable LLDP message mode, run **lldp receive**. To forbid receiving the LLDP message, run **no lldp receive**.

Parameter

None

Default value

Receivable LLDP message mode

Explanation

Only after the LLDP module is started can the configuration be valid.

Command mode

Port configuration mode

Example

The following example shows how to set port f0/0 to the LLDP message mode.

```
Switch_config_f0/0# no lldp receive
```

```
Switch_config_f0/0#
```

1.1.8 Show lldp errors

Description

Show lldp errors

It is used to display the error information about the LLDP module.

Parameter

None

Default value

None

Explanation

None

Command mode

EXEC/global configuration mode

Example

The following example shows how to set port f0/0 to the LLDP message mode.

```
switch_config#show lldp errors
```

```
LLDP errors/overflows:
```

```
    Total memory allocation failures: 0
```

```
    Total encapsulation failures: 0
```

```
    Total table overflows: 0
```

```
switch_config#
```

1.1.9 Show lldp interface**Description**

Show lldp interface *interface-name*

To check the transmission and reception mode, run **show lldp interface interface name**.

Parameter

Parameter	Description
<i>interface-name</i>	Name of the interface, such as f0/1 and fastethernet0/1

Default value

None

Explanation

After LLDP is started, you can check the state of the port.

Command mode

EXEC/global configuration mode

Example

The following example shows how to check the transmission and reception mode of port f0/1.

```
switch_config#show lldp interface f0/1
FastEthernet0/1:
Rx: enabled
Tx: enabled
switch_config#
```

1.1.10 show lldp neighbors**Description**

show lldp neighbors

It is used to display the simple information about neighbors.

Parameter

None

Default value

None

Description

The command is used to display the simple information about neighbors.

Command mode

EXEC/global configuration mode

Example

```

switch_config#show lldp neighbors
Capability Codes:
  (R)Router,(B)Bridge,(C)DOCSIS Cable Device,(T)Telephone
  (W)WLAN Access Point, (P)Repeater,(S)Station,(O)Other

Device-ID      Local-Intf      Hldtme      Port-ID      Capability
switch         Fas0/2          115          Fas0/32      B
switch         Fas0/32         114          Fas0/2        B

Total entries dispalyed: 2
switch_config#

```

1.1.11 Show lldp neighbors detail**Description****Show lldp neighbors detail**

It is used to display the detailed information about the neighbor.

Parameter

None

Default value

None

Explanation

None

Command mode

EXEC/global configuration mode

Example

```
switch_config#show lldp neighbors detail
```

chassis id: 00e0.0f61.ca53

port id: Fas0/32

port description: FastEthernet0/32

system name: switch.AAA

system description: AAA(tm) SWITCH Software, Version 2.0.1K

Serial: S35000456

Copyright by AAA CO. LTD.

Compiled: 2008-11-13 13:33:36 by SYS

Time remaining: 98

system capabilities: R B

enabled capabilities: B

Managment Address:

IP: 192.168.213.62

Auto Negotiation -- supported,enabled

Physical media capabilitise:

100baseTX(FD)

100baseTX(HD)

10baseT(FD)

10baseT(HD)

Media Attachment Unit type: 16

chassis id: 00e0.0f61.ca35

port id: Fas0/2

port description: FastEthernet0/2

system name: switch.AAA

system description: AAA(tm) SWITCH Software, Version 2.0.1K

Serial: S35000456

Copyright by AAA CO. LTD.

Compiled: 2008-11-13 13:33:36 by SYS

Time remaining: 95

system capabilities: R B

enabled capabilities: B

Managment Address:

IP: 90.0.0.66

Auto Negotiation -- supported,enabled

Physical media capabilitise:

100baseTX(FD)

100baseTX(HD)

10baseT(FD)

10baseT(HD)

Media Attachment Unit type: 16

Total entries dispalyed: 2

switch#

1.1.12 Show lldp traffic

Description

Show lldp traffic

To display all statistics information about LLDP, run **show lldp traffic**.

Parameter

None

Default value

None

Explanation

None

Command mode

EXEC/global configuration mode

Example

```
switch_config#show lldp traffic
LLDP traffic statistics:
  Total frames out: 1599
  Total entries aged: 0
  Total frames in: 624
  Total frames received in error: 0
  Total frames discarded: 0
  Total TLVs unrecognized: 0
switch_config#
```

1.1.13 clear lldp counters

Description

clear lldp counters

To clear the statistics information, run **clear lldp counters**.

Parameter

None

Default value

None

Explanation

None

Command mode

EXEC

Example

```
switch#clear lldp counters
switch#
```

1.1.14 clear lldp table**Description****clear lldp table**To remove the neighbor list, run **clear lldp table**.**Parameter**

None

Default value

None

Explanation

None

Command mode

EXEC

Example

```
switch#clear lldp table
switch#
```

1.1.15 **debug lldp errors****Description**

debug lldp errors

Reports some error information about the LLDP module.

Parameter

None

Default value

None

Explanation

None

Command mode

EXEC

Example

```
switch#debug lldp errors
debug lldp errors on
switch#show debug
lldp errors debugging is on
switch#Nov 14 09:39:04LLDP recive a bad frame on interface FastEthernet0/2
Nov 14 09:49:44LLDP transmit fail on interface FastEthernet0/2
```

1.1.16 **debug lldp events****Description**

debug lldp events

Reports some special events about the LLDP module.

Parameter

None

Default value

None

Explanation

None

Command mode

EXEC

Example

```

switch#debug lldp events
debug lldp events on
switch#show debug
lldp event debugging is on
switch#config
switch_config#int f0/2
switch_config_f0/2#no lldp tr
switch_config_f0/2#Nov 14 09:39:04 LLDP transmit a end packet on interface FastEthernet0/2
Nov 14 09:44:08LLDP recive a unrecognized tlv frame on interface FastEthernet0/2

```

1.1.17 debug lldp packets**Description****debug lldp packets**

Reports the message transmission event of the LLDP module.

Parameter

None

Default value

None

Explanation

None

Command mode

EXEC

Example

```
switch#debug lldp packets
debug lldp packets on
switch#show debug
lldp packet debugging is on
switch#Nov 13 16:38:20 LLDP advertisement packet TX'd on intf FastEthernet0/2
Nov 13 16:38:20 LLDP advertisement packet RX'd on intf FastEthernet0/32
```

1.1.18 debug lldp states**Description**

debug lldp states

Reports the information about the state of the LLDP port.

Parameter

None

Default value

None

Explanation

None

Command mode

EXEC

Example

```
switch#debug lldp states
debug lldp states on
switch#show debug
```

lldp state debugging is on

switch#Nov 13 16:39:51 LLDP transmit state on FastEthernet0/2 set to TX FRAME

Nov 13 16:39:51 LLDP transmit state on FastEthernet0/2 set to IDLE

Nov 13 16:39:51 LLDP receive state on FastEthernet0/32 set to RX FRAME

Nov 13 16:39:51 LLDP receive state on FastEthernet0/32 set to WAIT FOR FRAME