LLDP Configuration Commands

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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

Shut down

Explanation

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
time	Storage time of the transmitted message, ranging between zero to 65535 seconds

Default

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
time	Interval for transmitting the LLDP message, ranging between 5 to 65534 seconds.

Default

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
time	Transmission delay of LLDP, whose values range from two to five seconds

Default

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
tlv-type	TLV that can be sent or not whose values are: macphy-confg ,management-address port-description ,port-vlan ,system-capabilities system-description ,system-name

Default

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

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

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

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
interface-name	Name of the interface, such as f0/1 and fastethernet0/1

Default

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

None

Explanation

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

None

Explanation

None

Command mode

EXEC/global configuration mode

Example

```
switch_config#show lldp neighbors detail

chassis id: 001f.ce61.ca53
port id: Fas0/32
port description: FastEthernet0/32
system name: switch.

system description: (tm) 8330 Software, Version 2.0.1K
Serial: 45110234
Copy Right (C) 2015 by QTECH LLC

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: 001f.ce61.ca36
port id: Fas0/2
port description: FastEthernet0/2
system name: switch.

system description: (tm) 8330 Software, Version 2.0.1K
Serial: 45110234
Copy Right (C) 2015 by QTECH LLC
```

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

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

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

None

Explanation

None

Command mode

EXEC

Example

switch#clear lldp
table switch#

1.1.15 debug lldp errors

Description

debug lldp errors

To report some error information about the LLDP module, run **debug lldp errors**.

Parameter

None

Default

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 receive 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

To report some special events about the LLDP module, run **debug lldp events**.

Parameter

None

Default

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

To report the message transmission event of the LLDP module, run **debug lldp packets**.

Parameter

None

Default

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

To report the information about the state of the LLDP port, run **debug lldp states**.

Parameter

None

Default

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