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LLDP commands

dcbx version

Use **dcbx version** to configure the DCBX version.

Use **undo dcbx version** to restore the default.

Syntax

dcbx version { rev100 | rev101 | standard }

undo dcbx version

Default

The DCBX version is autonegotiated by two interfaces, with the standard version as the initial version for negotiation at the local end.

Views

Layer 2 Ethernet interface view

Predefined user roles

network-admin

Parameters

rev100: Specifies DCBX Rev 1.00.

rev101: Specifies DCBX Rev 1.01.

standard: Specifies the IEEE Std 802.1Qaz-2011.

Usage guidelines

For DCBX to work correctly, configure the same DCBX version that is supported on both ends. As a best practice, configure the highest version supported on both ends. IEEE Std 802.1Qaz-2011, DCBX Rev 1.01, and DCBX Rev 1.00 are in descending order.

After this command is configured, an interface includes the configured DCBX version in its outgoing LLDP frames and does not negotiate the DCBX version with the peer interface.

Examples

```
# Configure the DCBX version as DCBX Rev 1.01 on interface Ten-GigabitEthernet1/0/1.
```

```
<HP> system-view
```

```
[HP] interface ten-gigabitethernet1/0/1
```

```
[HP-Ten-GigabitEthernet1/0/1] dcbx version rev101
```

display lldp local-information

Use **display lldp local-information** to display local LLDP information, which will be contained in the advertisable LLDP TLVs and sent to neighboring devices.

Syntax

display lldp local-information [global | interface *interface-type interface-number*]

Views

Any view

Predefined user roles

network-admin
network-operator

Parameters

global: Displays the global local LLDP information.

interface *interface-type interface-number*: Specifies a port by its type and number.

Usage guidelines

If no keyword or argument is specified, this command displays all local LLDP information, which includes the following:

- The global LLDP information.
- The LLDP information about the LLDP-enabled ports in up state.

Examples

Display all local LLDP information. (In this example, the DCBX version is IEEE Std 802.1Qaz-2011.)

```
<Sysname> display lldp local-information
```

Global LLDP local-information:

```
Chassis ID           : 0cda-415e-232e
System name          : Sysname
System description   : H3C Comware Platform Software, Software Version 7.1.045,
                      Release 2432P03
                      H3C S6300-48S
                      Copyright (c) 2004-2017 New H3C Technologies Co., Ltd. All
                      rights reserved.
```

```
System capabilities supported : Bridge, Router, Customer Bridge, Service Bridge
System capabilities enabled   : Bridge, Router, Customer Bridge
```

MED information:

```
Device class           : Connectivity device
MED inventory information of master board:
HardwareRev            : Ver.B
FirmwareRev            : 125
SoftwareRev            : 7.1.046 Release 2432
SerialNum              : 210235A0U0H12A000065
Manufacturer name      : H3C
Model name              : H3C S6300-48S
Asset tracking identifier : Unknown
```

LLDP local-information of port 1[Ten-GigabitEthernet1/0/1]:

```
Port ID type           : Interface name
Port ID                : Ten-GigabitEthernet1/0/1
Port description       : Ten-GigabitEthernet1/0/1 Interface
LLDP agent nearest-bridge management address:
Management address type : All802
Management address      : 0cda-415e-2357
Management address interface type : IfIndex
Management address interface ID : Unknown
```

```

Management address OID          : 0
LLDP agent nearest-nontpmr management address:
Management address type         : All1802
Management address              : 0cda-415e-2357
Management address interface type : IfIndex
Management address interface ID  : Unknown
Management address OID          : 0
LLDP agent nearest-customer management address:
Management address type         : All1802
Management address              : 0cda-415e-2357
Management address interface type : IfIndex
Management address interface ID  : Unknown
Management address OID          : 0
DCBX Control info:
  Oper version                   : Ver 1.00
  Sequence number                : 6
  Acknowledge number            : 0
DCBX ETS info:
  CoS      Local Priority      Percentage
  0         2                  6
  1         0                  2
  2         1                  4
  3         5                  19
  4         4                  11
  5         5                  19
  6         6                  27
  7         7                  31
DCBX PFC info:
  P0-0    P1-0    P2-0    P3-0    P4-0    P5-1    P6-0    P7-0
DCBX APP info:
  CoS map: 0x8
Port VLAN ID(PVID)   : 1
Port and protocol VLAN ID(PPVID) : 0
Port and protocol VLAN supported : No
Port and protocol VLAN enabled   : No
VLAN name of VLAN 1      : VLAN 0001
Management VLAN ID     : 0
Link aggregation supported : Yes
Link aggregation enabled  : No
Aggregation port ID     : 0
Auto-negotiation supported : Yes
Auto-negotiation enabled  : Yes
OperMau                  : Speed(10000)/Duplex(Full)
Power port class         : PSE
PSE power supported      : No
PSE power enabled       : No
PSE pairs control ability : No
Power pairs              : Signal

```

Port power classification : Class 0

Maximum frame size : 10000

Table 1 Command output

Field	Description
Chassis ID	Bridge MAC address of the device.
System capabilities supported	Supported capabilities: <ul style="list-style-type: none">• Bridge—Switching is supported.• Router—Routing is supported.• DocsisCableDevice—The local device can serve as a DOCSIS-compliant cable device.• StationOnly—The local device can serve as a station only.• Customer Bridge—The customer bridge function is supported.• Service Bridge—The service bridge function is supported.• TPMR—The two-port MAC relay (TPMR) function is supported.• Other—Functions other than those listed above are supported.
System capabilities enabled	Enabled capabilities: <ul style="list-style-type: none">• Bridge—Switching is enabled.• Router—Routing is enabled.• DocsisCableDevice—The local device is serving as a DOCSIS-compliant cable device.• StationOnly—The local device is serving as a station only.• Customer Bridge—The customer bridge function is enabled.• Service Bridge—The service bridge function is enabled.• TPMR—The TPMR function is enabled.• Other—Functions other than those listed above are enabled.
Device class	MED device class: <ul style="list-style-type: none">• Connectivity device—Network device.• Class I—Normal terminal device. It requires the basic LLDP discovery services.• Class II—Media terminal device. It supports media streams, and can also function as a normal terminal device.• Class III—Communication terminal device. It supports the IP communication systems of end users, and can also function as a normal terminal device or media terminal device.
MED inventory information of master board	MED inventory information of the master board on the IRF device.
HardwareRev	Hardware version.
FirmwareRev	Firmware version.
SoftwareRev	Software version.
SerialNum	Serial number.
Manufacturer name	Device manufacturer.
Model name	Device model.
Port ID type	Port ID type: <ul style="list-style-type: none">• MAC address.• Interface name.
Port ID	Port ID, the value of which varies with port ID type.
Management address interface	Numbering type of the interface identified by the management address.

Field	Description
type	
Management address interface ID	Index of the interface identified by the management address.
Management address OID	Management address object ID.
DCBX control info	Displayed as version information in IEEE Std 802.1Qaz-2011.
Oper version	DCBX version number.
Sequence number	Number of DCBX TLV content changes.
Acknowledge number	Times of synchronizing configurations by the peer device.
DCBX ETS info	CoS-to-local priority mapping and bandwidth allocation.
Percentage	Percentage of bandwidth allocated.
P0- P1- P2- P3- P4- P5- P6- P7-	Number of supported priorities configured by using the priority-flow-control no-drop dot1p dot1p-list command at the local end.
Number of traffic classes supported	Capability set supported by PFC (displayed only in Rev 1.01).
Priority	802.1p priority.
Protocol ID	Application protocol number.
CoS map	Application protocol-to-CoS mapping.
CBS	Indicates whether the token bucket mechanism is supported on the port: <ul style="list-style-type: none"> • False—The token bucket mechanism is not supported. • True—The token bucket mechanism is supported.
Max TCs	Maximum number of priorities supported.
TSA	Transmission selection algorithm.
Value of MBC	MBC indicates the ability of packets to bypass MACsec. It is 1-bit long. <ul style="list-style-type: none"> • 0—Packets can bypass MACsec when MACsec is disabled. • 1—Packets cannot bypass MACsec when MACsec is disabled.
Link aggregation supported	Indicates whether link aggregation is supported on the port.
Link aggregation enabled	Indicates whether link aggregation is enabled on the port.
Aggregation port ID	Member port ID, which is 0 when link aggregation is disabled.
Auto-negotiation supported	Indicates whether autonegotiation is supported on the port.
Auto-negotiation enabled	Indicates whether autonegotiation is enabled on the port.
OperMau	Speed and duplex state of the port.
Power port class	PoE port class: <ul style="list-style-type: none"> • PSE—Power sourcing equipment. • PD—Powered device.
PSE power supported	Indicates whether the device can operate as a PSE.
PSE power enabled	Indicates whether the device is operating as a PSE.
PSE pairs control ability	Indicates whether the PSE-PD pair control is available.
Power pairs	Power supply mode: <ul style="list-style-type: none"> • Signal—Uses data pairs to supply power. • Spare—Uses spare pairs to supply power.

Field	Description
Port power classification	Port power classification of the PD: <ul style="list-style-type: none"> • Class 0. • Class 1. • Class 2. • Class 3. • Class 4.
Media policy type	Media policy type: <ul style="list-style-type: none"> • unknown. • voice. • voiceSignaling. • guestVoice. • guestVoiceSignaling. • softPhoneVoice. • videoconferencing. • streamingVideo. • videoSignaling.
Unknown policy	Indicates whether the media policy is unknown.
VLAN tagged	Indicates whether packets of the media VLAN are tagged.
Media policy VLAN ID	ID of the media VLAN.
Media policy L2 priority	Layer 2 priority.
Media policy DSCP	DSCP value.

display lldp neighbor-information

Use **display lldp neighbor-information** to display the LLDP information carried in LLDP TLVs that the local device receives from the neighboring devices.

Syntax

```
display lldp neighbor-information [ [ [ interface interface-type interface-number ] [ agent
{ nearest-bridge | nearest-customer | nearest-nontpmr } ] [ verbose ] ] | list [ system-name
system-name ] ]
```

Views

Any view

Predefined user roles

network-admin

network-operator

Parameters

interface *interface-type interface-number*. Specifies a port by its type and number. If this option is not specified, this command displays the LLDP information that all ports receive from the neighboring devices.

agent: Specifies an agent by its type and number. If no agent type is specified, the command displays the LLDP information that all LLDP agents receive from the neighboring devices.

nearest-bridge: Specifies nearest bridge agents.

nearest-customer: Specifies nearest customer bridge agents.

nearest-nontpmr: Specifies nearest non-TPMR bridge agents.

verbose: Displays the detailed LLDP information that the local device receives from the neighboring devices. If this keyword is not specified, this command displays the brief LLDP information that the local device receives from the neighboring devices.

list: Displays the LLDP information that the local device receives from the neighboring devices in the form of a list.

system-name system-name: Displays the LLDP information that the local device receives from a neighboring device specified by its system name. The *system-name* argument is a string of 1 to 255 characters. If this option is not specified, this command displays the LLDP information that the local device receives from all neighboring devices in a list.

Examples

Display the detailed LLDP information that the nearest bridge agents on all ports received from the neighboring devices. (DCBX is IEEE Std 802.1Qaz-2011.)

```
<Sysname> display lldp neighbor-information agent nearest-bridge verbose
LLDP neighbor-information of port 1[Ten-GigabitEthernet1/0/1]:
LLDP agent nearest-bridge:
  LLDP Neighbor index : 1
  Update time         : 0 days, 0 hours, 1 minutes, 1 seconds
  Chassis type        : MAC address
  Chassis ID          : 000f-0055-0002
  Port ID type        : Interface name
  Port ID             : Ten-GigabitEthernet1/0/1
  Time to live        : 120
  Port description    : Ten-GigabitEthernet1/0/1 Interface
  System name         : Sysname
  System description  : H3C Comware Platform Software
  System capabilities supported : Bridge, Router, Customer Bridge, Service Bridge
  System capabilities enabled   : Bridge, Router, Customer Bridge
  Management address type       : IPv4
  Management address           : 192.168.1.55
  Management address interface type : IfIndex
  Management address interface ID  : Unknown
  Management address OID         : 0
  DCBX Control info:
  Oper version                  : Standard
  DCBX ETS configuration info:
  CBS                           : False
  Max TCs                       : 8
  CoS      Local priority      Percentage      TSA
  0         0                  15             ETS
  1         1                  0             SP
  2         2                  15             ETS
  3         3                  14             ETS
  4         4                  14             ETS
  5         5                  14             ETS
  6         6                  14             ETS
  7         7                  14             ETS
  DCBX ETS recommendation info:
```


CoS	Local priority	Percentage	TSA
0	0	15	ETS
1	1	0	SP
2	2	15	ETS
3	3	14	ETS
4	4	14	ETS
5	5	14	ETS
6	6	14	ETS
7	7	14	ETS

DCBX PFC info:

P0-0 P1-1 P2-1 P3-1 P4-0 P5-0 P6-0 P7-0

Number of traffic classes supported: 8

Value of MBC: 0

DCBX APP info:

Selected Field	Protocol ID	Priority
UDP/DCCP	100	0x3
TCP/SCTP	200	0x3
Ethertype	0x1234	0x3
Ethertype	0x8906	0x3

Port VLAN ID(PVID): 1

Port and protocol VLAN ID(PPVID) : 0

Port and protocol VLAN supported : No

Port and protocol VLAN enabled : No

VLAN name of VLAN 12: VLAN 0012

Management VLAN ID : 5

Auto-negotiation supported : Yes

Auto-negotiation enabled : Yes

OperMau : Speed(1000)/Duplex(Full)

Power port class : PD

PSE power supported : Yes

PSE power enabled : Yes

PSE pairs control ability : Yes

Power pairs : Signal

Port power classification : Class 0

Link aggregation supported: Yes

Link aggregation enabled : Yes

Aggregation port ID : 52

Maximum frame size : 1500

Display the detailed LLDP information that all LLDP agents on all ports received from the neighboring devices. (DCBX is IEEE Std 802.1Qaz-2011.)

<Sysname> display lldp neighbor-information verbose

LLDP neighbor-information of port 1[Ten-GigabitEthernet1/0/1]:

LLDP agent nearest-bridge:

LLDP Neighbor index : 1

Update time : 0 days, 0 hours, 1 minutes, 1 seconds

Chassis type : MAC address

Chassis ID : 000f-0055-0002

Port ID type : Interface name

```

Port ID          : Ten-GigabitEthernet1/0/1
Time to live     : 121
Port description : Ten-GigabitEthernet1/0/1 Interface
System name      : Sysname
System description : H3C Comware Platform Software
System capabilities supported : Bridge, Router, Customer Bridge, Service Bridge
System capabilities enabled   : Bridge, Router, Customer Bridge
Management address type      : IPv4
Management address          : 192.168.1.55
Management address interface type : IfIndex
Management address interface ID : Unknown
Management address OID      : 0
DCBX control info:
  Oper version      : Standard
DCBX ETS configuration info:
  CBS              : False
  Max TCs         : 8
  CoS      Local Priority      Percentage      TSA
  0           0                15                ETS
  1           1                0                 SP
  2           2                15                ETS
  3           3                14                ETS
  4           4                14                ETS
  5           5                14                ETS
  6           6                14                ETS
  7           7                14                ETS
DCBX ETS recommendation info:
  CoS      Local Priority      Percentage      TSA
  0           0                15                ETS
  1           1                0                 SP
  2           2                15                ETS
  3           3                14                ETS
  4           4                14                ETS
  5           5                14                ETS
  6           6                14                ETS
  7           7                14                ETS
DCBX PFC info:
  P0-0    P1-1    P2-1    P3-1    P4-0    P5-0    P6-0    P7-0
Number of traffic classes supported: 8
Value of MBC: 0
DCBX APP info:
  Selected Field  Protocol ID  Priority
  UDP/DCCP       100         0x3
  TCP/SCTP       200         0x3
  Ethertype      0x1234      0x3
  Ethertype      0x8906      0x3
Port VLAN ID(PVID): 1
Port and protocol VLAN ID(PPVID) : 0

```

```

Port and protocol VLAN supported : No
Port and protocol VLAN enabled   : No
VLAN name of VLAN 12: VLAN 0012
Management VLAN ID   : 5
Auto-negotiation supported : Yes
Auto-negotiation enabled : Yes
OperMau              : Speed(1000)/Duplex(Full)
Power port class     : PD
PSE power supported  : Yes
PSE power enabled    : Yes
PSE pairs control ability : Yes
Power pairs          : Signal
Port power classification : Class 0
Link aggregation supported : Yes
Link aggregation enabled  : Yes
Aggregation port ID      : 52
Maximum frame size      : 1500
LLDP neighbor-information of port 1[Ten-GigabitEthernet1/0/1]:
LLDP agent nearest-ntpnr:
LLDP Neighbor index : 1
Update time         : 0 days, 0 hours, 1 minutes, 1 seconds
Chassis type        : MAC address
Chassis ID          : 000f-0055-0002
Port ID type        : Interface name
Port ID             : Ten-GigabitEthernet1/0/1
Time to live        : 121
Port description    : Ten-GigabitEthernet1/0/1 Interface
System name         : Sysname
System description  : H3C Comware Platform Software
System capabilities supported : Bridge, Router, Customer Bridge, Service Bridge
System capabilities enabled   : Bridge, Router, Customer Bridge
Management address type      : IPv4
Management address           : 192.168.1.55
Management address interface type : IfIndex
Management address interface ID : Unknown
Management address OID       : 0
Port VLAN ID(PVID): 1
Port and protocol VLAN ID(PPVID) : 12
Port and protocol VLAN supported : Yes
Port and protocol VLAN enabled   : Yes
VLAN name of VLAN 12: VLAN 0012
Auto-negotiation supported : Yes
Auto-negotiation enabled   : Yes
OperMau                    : Speed(1000)/Duplex(Full)
Power port class           : PD
PSE power supported        : Yes
PSE power enabled         : Yes
PSE pairs control ability  : Yes

```

```
Power pairs          : Signal
Port power classification : Class 0
Link aggregation supported : Yes
Link aggregation enabled  : Yes
Aggregation port ID     : 52
Maximum frame size      : 1500
```

Display the brief LLDP information that all LLDP agents on all ports received from the neighboring devices.

```
<Sysname> display lldp neighbor-information
LLDP neighbor-information of port 52[Ten-GigabitEthernet1/0/3]:
LLDP agent nearest-bridge:
  LLDP neighbor index : 3
  ChassisID/subtype   : 0011-2233-4400/MAC address
  PortID/subtype      : 000c-29f5-c71f/MAC address
  Capabilities        : Bridge, Router, Customer Bridge

  LLDP neighbor index : 6
  ChassisID/subtype   : 0011-2233-4400/MAC address
  PortID/subtype      : 000c-29f5-c715/MAC address
  Capabilities        : None
```

```
CDP neighbor-information of port 52[Ten-GigabitEthernet1/0/3]:
LLDP agent nearest-bridge:
  CDP neighbor index : 4
  Chassis ID         : SEP00260B5C0548
  Port ID            : Port 1

  CDP neighbor index : 5
  Chassis ID         : 0011-2233-4400
  Port ID            : Ten-GigabitEthernet1/0/4
```

```
LLDP neighbor-information of port 52[Ten-GigabitEthernet1/0/3]:
LLDP agent nearest-nontpmr:
  LLDP neighbor index : 6
  ChassisID/subtype   : 0011-2233-4400/MAC address
  PortID/subtype      : 000c-29f5-c715/MAC address
  Capabilities        : None
```

Display the brief LLDP information that all LLDP agents received from all neighboring devices in a list.

```
<Sysname> display lldp neighbor-information list
Chassis ID : * -- --Nearest nontpmr bridge neighbor
             # -- --Nearest customer bridge neighbor
             Default -- -- Nearest bridge neighbor
System Name      Local Interface  Chassis ID      Port ID
System1          XGE1/0/1         000f-e25d-ee91  Ten-GigabitEthernet1/0/5
System2          XGE1/0/2         000f-e25d-ee92* Ten-GigabitEthernet1/0/6
System3          XGE1/0/3         000f-e25d-ee93# Ten-GigabitEthernet1/0/7
```

Table 2 Command output

Field	Description
LLDP neighbor-information of port 1	LLDP information received through port 1.
Update time	Time when LLDP information about a neighboring device was last updated.
Chassis type	Chassis ID type: <ul style="list-style-type: none"> • Chassis component. • Interface alias. • Port component. • MAC address. • Network address (ipv4). • Interface name. • Locally assigned—Locally-defined chassis type other than those listed above.
Chassis ID	ID that identifies the LLDP sending device, which can be a MAC address, a network address, an interface, or some other value, depending on the chassis type of the neighboring device.
Port ID type	Port ID type: <ul style="list-style-type: none"> • Interface alias. • Port component. • MAC address. • Network address (ipv4). • Interface name. • Agent circuit ID. • Locally assigned—Locally-defined port ID type other than those listed above.
Port ID	Value of the type of the port ID.
System name	System name of the neighboring device.
System description	System description of the neighboring device.
System capabilities supported	Capabilities supported on the neighboring device: <ul style="list-style-type: none"> • Repeater—Signal repeating is supported. • Bridge—Switching is supported. • WlanAccessPoint—The neighboring device can serve as a wireless AP. • Router—Routing is supported. • Telephone—The neighboring device can serve as a telephone. • DocsisCableDevice—The neighboring device can serve as a DOCSIS-compliant cable device. • StationOnly—The neighboring device can serve as a station only. • Customer Bridge—The customer bridge function is enabled. • Service Bridge—The service bridge function is enabled. • TPMR—The TPMR function is enabled. • Other—Functions other than those listed above are supported.
System capabilities enabled	Capabilities enabled on the neighboring device: <ul style="list-style-type: none"> • Repeater—Signal repeating is enabled. • Bridge—Switching is enabled.

Field	Description
	<ul style="list-style-type: none"> • WlanAccessPoint—The neighboring device is serving as a wireless AP. • Router—Routing is enabled. • Telephone—The neighboring device is serving as a telephone. • DocsisCableDevice—The neighboring device is serving as a DOCSIS-compliant cable device. • StationOnly—The neighboring device is serving as a station only. • Customer Bridge—The customer bridge function is enabled. • Service Bridge—The service bridge function is enabled. • TPMR—The TPMR function is enabled. • Other—Functions other than those listed above are supported.
Management address OID	Management address object ID.
DCBX control info	Displayed as version information in IEEE Std 802.1Qaz-2011.
Oper version	DCBX version number.
Sequence number	Number of DCBX TLV content changes.
Acknowledge number	Times of synchronizing configurations by the peer device.
DCBX ETS info	CoS-to-local priority mapping and bandwidth allocation.
Percentage	Percentage of bandwidth allocated.
P0- P1- P2- P3- P4- P5- P6- P7-	Number of supported priorities configured by using the priority-flow-control no-drop dot1p dot1p-list command on the neighbor.
Number of traffic classes supported	Capability set supported by PFC (displayed only in Rev 1.01 and IEEE Std 802.1Qaz-2011).
CoS map	Application protocol-to-CoS mapping.
CBS	Indicates whether the token bucket mechanism is supported on the port: <ul style="list-style-type: none"> • False—The token bucket mechanism is not supported. • True—The token bucket mechanism is supported.
Max TCs	Maximum number of priorities supported.
TSA	Transmission selection algorithm.
Value of MBC	MBC indicates the ability of packets to bypass MACsec. It is 1-bit long. <ul style="list-style-type: none"> • 0—Packets can bypass MACsec when MACsec is disabled. • 1—Packets cannot bypass MACsec when MACsec is disabled.
Port and protocol VLAN ID(PPVID)	Port protocol VLAN ID.
Port and protocol VLAN supported	Indicates whether protocol VLAN is supported on the port.
Port and protocol VLAN enabled	Indicates whether protocol VLAN is enabled on the port.
VLAN name of VLAN 12	Name of VLAN 12.
Auto-negotiation supported	Indicates whether autonegotiation is supported on the port.
Auto-negotiation enabled	Indicates whether autonegotiation is enabled on the port.
OperMau	Speed and duplex state on the port.

Field	Description
Power port class	PoE port class: <ul style="list-style-type: none"> • PSE—Power sourcing equipment. • PD—Powered device.
PSE power supported	Indicates whether the device can operate as a PSE.
PSE power enabled	Indicates whether the device is operating as a PSE.
PSE pairs control ability	Indicates whether the pair selection ability is available.
Power pairs	Power supply mode: <ul style="list-style-type: none"> • Signal—Uses data pairs to supply power. • Spare—Uses spare pairs to supply power.
Port power classification	Power class of the PD: <ul style="list-style-type: none"> • Class 0. • Class 1. • Class 2. • Class 3. • Class 4.
Link aggregation supported	Indicates whether link aggregation is supported.
Link aggregation enabled	Indicates whether link aggregation is enabled.
TLV type	Unknown basic TLV type.
TLV information	Information contained in the unknown basic TLV type.
Unknown organizationally-defined TLV	Unknown organizationally specific TLV.
TLV OUI	OUI of the unknown organizationally specific TLV.
TLV subtype	Unknown organizationally specific TLV subtype.
Index	Unknown organization index.
Capabilities	Capabilities enabled on the neighboring device: <ul style="list-style-type: none"> • Repeater—Signal repeating is enabled. • Bridge—Switching is enabled. • WlanAccessPoint—The neighboring device is serving as a wireless AP. • Router—Routing is enabled. • Telephone—The neighboring device is serving as a telephone. • DocsisCableDevice—The neighboring device is serving as a DOCSIS-compliant cable device. • StationOnly—The neighboring device is serving as a station only. • Other—Functions other than those listed above are supported. • None—The neighboring device does not advertise this TLV.
Local Interface	Local port that receives the LLDP information.
Chassis ID : * -- -- Nearest nontpmr bridge neighbor #-- -- Nearest customer bridge neighbor	Chassis ID flag: <ul style="list-style-type: none"> • An asterisk (*) indicates the nearest non-TPMR bridge neighbor. • A pound sign (#) indicates the nearest customer bridge neighbor.

display lldp statistics

Use **display lldp statistics** to display the global LLDP statistics or the LLDP statistics of a port.

Syntax

```
display lldp statistics [ global | [ interface interface-type interface-number ] [ agent { nearest-bridge | nearest-customer | nearest-nontpmr } ] ]
```

Views

Any view

Predefined user roles

network-admin

network-operator

Parameters

global: Displays the global LLDP statistics.

interface *interface-type interface-number*: Specifies a port by its type and number.

agent: Specifies an LLDP agent type. If no agent type is specified, the command displays the statistics for all LLDP agents.

nearest-bridge: Specifies nearest bridge agents.

nearest-customer: Specifies nearest customer bridge agents.

nearest-nontpmr: Specifies nearest non-TPMR bridge agents.

Usage guidelines

If no keyword or argument is specified, this command displays the global LLDP statistics and the LLDP statistics of all ports.

Examples

Display the global LLDP statistics and the LLDP statistics of all ports.

```
<Sysname> display lldp statistics
LLDP statistics global information:
LLDP neighbor information last change time:0 days, 0 hours, 4 minutes, 40 seconds
The number of LLDP neighbor information inserted : 1
The number of LLDP neighbor information deleted : 1
The number of LLDP neighbor information dropped : 0
The number of LLDP neighbor information aged out : 1

LLDP statistics information of port 1 [Ten-GigabitEthernet1/0/1]:
LLDP agent nearest-bridge:
The number of LLDP frames transmitted : 0
The number of LLDP frames received : 0
The number of LLDP frames discarded : 0
The number of LLDP error frames : 0
The number of LLDP TLVs discarded : 0
The number of LLDP TLVs unrecognized : 0
The number of LLDP neighbor information aged out : 0
The number of CDP frames transmitted : 0
The number of CDP frames received : 0
The number of CDP frames discarded : 0
```



```

The number of CDP error frames          : 0

LLDP agent nearest-nontpnr:
The number of LLDP frames transmitted   : 0
The number of LLDP frames received      : 0
The number of LLDP frames discarded     : 0
The number of LLDP error frames         : 0
The number of LLDP TLVs discarded       : 0
The number of LLDP TLVs unrecognized    : 0
The number of LLDP neighbor information aged out : 0
The number of CDP frames transmitted    : 0
The number of CDP frames received       : 0
The number of CDP frames discarded      : 0
The number of CDP error frames          : 0

```

```

LLDP agent nearest-customer:
The number of LLDP frames transmitted   : 0
The number of LLDP frames received      : 0
The number of LLDP frames discarded     : 0
The number of LLDP error frames         : 0
The number of LLDP TLVs discarded       : 0
The number of LLDP TLVs unrecognized    : 0
The number of LLDP neighbor information aged out : 0
The number of CDP frames transmitted    : 0
The number of CDP frames received       : 0
The number of CDP frames discarded      : 0
The number of CDP error frames          : 0

```

Display the LLDP statistics for the nearest customer bridge agents on Ten-GigabitEthernet 1/0/1.

```

<Sysname> display lldp statistics interface Ten-GigabitEthernet1/0/1 agent
nearest-customer

```

```

LLDP statistics information of port 1 [Ten-GigabitEthernet1/0/1]:

```

```

LLDP agent nearest-customer:
The number of LLDP frames transmitted   : 0
The number of LLDP frames received      : 0
The number of LLDP frames discarded     : 0
The number of LLDP error frames         : 0
The number of LLDP TLVs discarded       : 0
The number of LLDP TLVs unrecognized    : 0
The number of LLDP neighbor information aged out : 0
The number of CDP frames transmitted    : 0
The number of CDP frames received       : 0
The number of CDP frames discarded      : 0
The number of CDP error frames          : 0

```

Table 3 Command output

Field	Description
LLDP statistics global information	Global LLDP statistics.

Field	Description
LLDP neighbor information last change time	Time when the neighbor information was last updated.
The number of LLDP neighbor information inserted	Number of times neighbor information was added.
The number of LLDP neighbor information deleted	Number of times neighbor information was removed.
The number of LLDP neighbor information dropped	Number of times neighbor information was dropped due to lack of available memory space.

display lldp status

Use **display lldp status** to display LLDP status.

Syntax

```
display lldp status [ interface interface-type interface-number ] [ agent { nearest-bridge | nearest-customer | nearest-nontpmr } ]
```

Views

Any view

Predefined user roles

network-admin
network-operator

Parameters

interface *interface-type interface-number*: Specifies a port by its type and number.

agent: Specifies an LLDP agent type. If no agent type is specified, the command displays the status information for all LLDP agents.

nearest-bridge: Specifies nearest bridge agents.

nearest-customer: Specifies nearest customer bridge agents.

nearest-nontpmr: Specifies nearest non-TPMR bridge agents.

Usage guidelines

If no port is specified, this command displays the global LLDP status and the LLDP status of each port.

Examples

Display the global LLDP status and the LLDP status of each port.

```
<Sysname> display lldp status
Global status of LLDP: Enable
Bridge mode of LLDP: customer-bridge
The current number of LLDP neighbors: 0
The current number of CDP neighbors: 0
LLDP neighbor information last changed time: 0 days, 0 hours, 4 minutes, 40 seconds
Transmit interval           : 30s
Fast transmit interval      : 1s
Transmit max credit        : 5
Hold multiplier             : 4
Reinit delay                : 2s
Trap interval               : 5s
```

Fast start times : 3

LLDP status information of port 1 [Ten-GigabitEthernet1/0/1]:

LLDP agent nearest-bridge:

Port status of LLDP : Enable
Admin status : Tx_Rx
Trap flag : No
MED trap flag : No
Polling interval : 0s
Number of LLDP neighbors : 5
Number of MED neighbors : 2
Number of CDP neighbors : 0
Number of sent optional TLV : 12
Number of received unknown TLV : 5
Neighbor protection status : Port not protected

LLDP agent nearest-nontpmr:

Port status of LLDP : Enable
Admin status : Tx_Rx
Trap flag : No
Polling interval : 0s
Number of LLDP neighbors : 5
Number of MED neighbors : 2
Number of CDP neighbors : 0
Number of sent optional TLV : 12
Number of received unknown TLV : 5
Neighbor protection status : Port not protected

LLDP agent nearest-customer:

Port status of LLDP : Enable
Admin status : Tx_Rx
Trap flag : No
Polling interval : 0s
Number of LLDP neighbors : 5
Number of MED neighbors : 2
Number of CDP neighbors : 0
Number of sent optional TLV : 12
Number of received unknown TLV : 5
Neighbor protection status : Port not protected

Table 4 Command output

Field	Description
Bridge mode of LLDP	LLDP bridge mode: service-bridge or customer-bridge.
Global status of LLDP	Indicates whether LLDP is globally enabled.
LLDP neighbor information last changed time	Time when the neighbor information was last updated.
Transmit interval	LLDP frame transmission interval.

Field	Description
Hold multiplier	TTL multiplier.
Reinit delay	LLDP reinitialization delay.
Transmit max credit	Token bucket size for sending LLDP frames.
Trap interval	Trap transmission interval.
Fast start times	Number of LLDP frames sent each time fast LLDP frame transmission is triggered.
Port 1	LLDP status of port 1.
Port status of LLDP	Indicates whether LLDP is enabled on the port.
Admin status	LLDP operating mode of the port: <ul style="list-style-type: none"> • Tx_Rx—The port can send and receive LLDP frames. • Rx_Only—The port can only receive LLDP frames. • Tx_Only—The port can only send LLDP frames. • Disable—The port cannot send or receive LLDP frames.
Trap Flag	Indicates whether trapping is enabled.
Polling interval	LLDP polling interval, which is 0 when LLDP polling is disabled.
Number of neighbors	Number of LLDP neighbors connecting to the port.
Number of MED neighbors	Number of MED neighbors connecting to the port.
Number of CDP neighbors	Number of CDP neighbors connecting to the port.
Number of sent optional TLV	Number of optional TLVs contained in an LLDP frame sent through the port.
Number of received unknown TLV	Number of unknown TLVs contained in a received LLDP frame.
Neighbor protection status	Neighbor protection status: <ul style="list-style-type: none"> • Port blocked (validation)—The port is blocked due to neighbor validation failure. • Port blocked (aging)—The port is blocked due to neighbor aging. • Port shutdown (aging)—The port is shut down due to neighbor aging. • Port not protected—Neither neighbor validation nor neighbor aging is enabled on the port.

display lldp tlv-config

Use **display lldp tlv-config** to display the types of advertisable optional LLDP TLVs of a port.

Syntax

```
display lldp tlv-config [ interface interface-type interface-number ] [ agent { nearest-bridge | nearest-customer | nearest-nontpmr } ]
```

Views

Any view

Predefined user roles

network-admin

network-operator

Parameters

interface *interface-type interface-number*: Specifies a port by its type and number.

agent: Specifies an LLDP agent type. If no agent type is specified, the command displays the types of advertisable optional LLDP TLVs for all LLDP agents.

nearest-bridge: Specifies nearest bridge agents.

nearest-customer: Specifies nearest customer bridge agents.

nearest-nontpmr: Specifies nearest non-TPMR bridge agents.

Usage guidelines

If no port is specified, this command displays the types of advertisable optional TLVs of all ports.

Examples

Display the types of advertisable optional LLDP TLVs of interface Ten-GigabitEthernet 1/0/1.

```
<Sysname> display lldp tlv-config interface ten-gigabitethernet 1/0/1
```

```
LLDP tlv-config of port 1[Ten-GigabitEthernet1/0/1]:
```

```
LLDP agent nearest-bridge:
```

NAME	STATUS	DEFAULT
------	--------	---------

Basic optional TLV:

Port Description TLV	YES	YES
----------------------	-----	-----

System Name TLV	YES	YES
-----------------	-----	-----

System Description TLV	YES	YES
------------------------	-----	-----

System Capabilities TLV	YES	YES
-------------------------	-----	-----

Management Address TLV	YES	YES
------------------------	-----	-----

IEEE 802.1 extend TLV:

Port VLAN ID TLV	YES	YES
------------------	-----	-----

Port And Protocol VLAN ID TLV	YES	YES
-------------------------------	-----	-----

VLAN Name TLV	YES	YES
---------------	-----	-----

DCBX TLV	NO	NO
----------	----	----

EVB TLV	NO	NO
---------	----	----

Link Aggregation TLV	YES	YES
----------------------	-----	-----

Management VID TLV	YES	YES
--------------------	-----	-----

Congestion notification TLV	NO	NO
-----------------------------	----	----

IEEE 802.3 extend TLV:

MAC-Physic TLV	YES	YES
----------------	-----	-----

Power via MDI TLV	YES	YES
-------------------	-----	-----

Maximum Frame Size TLV	YES	YES
------------------------	-----	-----

LLDP-MED extend TLV:

Capabilities TLV	YES	YES
------------------	-----	-----

Network Policy TLV	YES	YES
--------------------	-----	-----

Location Identification TLV	NO	NO
-----------------------------	----	----

Extended Power via MDI TLV	YES	YES
----------------------------	-----	-----

Inventory TLV	YES	YES
---------------	-----	-----

```
LLDP agent nearest-nontpmr:
```

NAME	STATUS	DEFAULT
------	--------	---------

Basic optional TLV:

Port Description TLV	YES	NO
----------------------	-----	----

System Name TLV	YES	NO
-----------------	-----	----

System Description TLV	YES	NO
------------------------	-----	----

System Capabilities TLV	YES	NO
Management Address TLV	YES	NO
IEEE 802.1 extend TLV:		
Port VLAN ID TLV	YES	NO
Port And Protocol VLAN ID TLV	YES	NO
VLAN Name TLV	YES	NO
DCBX TLV	NO	NO
EVB TLV	YES	YES
Link Aggregation TLV	YES	NO
Management VID TLV	NO	NO
Congestion notification TLV	NO	NO
IEEE 802.3 extend TLV:		
MAC-Physic TLV	YES	NO
Power via MDI TLV	YES	NO
Maximum Frame Size TLV	YES	NO
LLDP-MED extend TLV:		
Capabilities TLV	YES	NO
Network Policy TLV	YES	NO
Location Identification TLV	NO	NO
Extended Power via MDI TLV	YES	NO
Inventory TLV	YES	NO
LLDP agent nearest-customer:		
NAME	STATUS	DEFAULT
Basic optional TLV:		
Port Description TLV	YES	YES
System Name TLV	YES	YES
System Description TLV	YES	YES
System Capabilities TLV	YES	YES
Management Address TLV	YES	YES
IEEE 802.1 extend TLV:		
Port VLAN ID TLV	YES	YES
Port And Protocol VLAN ID TLV	YES	YES
VLAN Name TLV	YES	YES
DCBX TLV	NO	NO
EVB TLV	NO	NO
Link Aggregation TLV	YES	NO
Management VID TLV	YES	YES
Congestion notification TLV	NO	NO
IEEE 802.3 extend TLV:		
MAC-Physic TLV	YES	NO
Power via MDI TLV	YES	NO
Maximum Frame Size TLV	YES	NO
LLDP-MED extend TLV:		
Capabilities TLV	YES	YES
Network Policy TLV	YES	YES
Location Identification TLV	NO	NO
Extended Power via MDI TLV	YES	NO

Table 5 Command output

Field	Description
LLDP tlv-config of port 1	Advertisable optional TLVs of port 1.
NAME	TLV type.
STATUS	Indicates whether the type of TLV is sent through a port.
DEFAULT	Indicates whether the type of TLV is sent through a port by default.
Basic optional TLV	Basic optional TLVs: <ul style="list-style-type: none"> • Port description TLV. • System name TLV. • System description TLV. • System capabilities TLV. • Management address TLV.
IEEE 802.1 extended TLV	IEEE 802.1 organizationally specific TLVs: <ul style="list-style-type: none"> • Port VLAN ID TLV. • Port and protocol VLAN ID TLV. • VLAN name TLV. • DCBX TLV.. • EVB TLV. • Management VID TLV. • Congestion notification TLV.
IEEE 802.3 extended TLV	IEEE 802.3 organizationally specific TLVs: <ul style="list-style-type: none"> • MAC-Physic TLV. • Power via MDI TLV. • Link aggregation TLV. • Maximum frame size TLV.
LLDP-MED extend TLV	LLDP-MED TLVs: <ul style="list-style-type: none"> • Capabilities TLV. • Network Policy TLV. • Extended Power-via-MDI TLV. • Location Identification TLV. • Inventory TLV.
Inventory TLV	Inventory TLVs: <ul style="list-style-type: none"> • Hardware Revision TLV. • Firmware Revision TLV. • Software Revision TLV. • Serial Number TLV. • Manufacturer Name TLV. • Model name TLV. • Asset ID TLV.

Ildp admin-status

Use **Ildp admin-status** to specify the LLDP operating mode.

Use **undo Ildp admin-status** to restore the default.

Syntax

In Layer 2 Ethernet interface view or management Ethernet interface view:

```
lldp [ agent { nearest-customer | nearest-nontpmr } ] admin-status { disable | rx | tx | txrx }  
undo lldp [ agent { nearest-customer | nearest-nontpmr } ] admin-status
```

In Layer 2 aggregate interface view:

```
lldp agent { nearest-customer | nearest-nontpmr } admin-status { disable | rx | tx | txrx }  
undo lldp agent { nearest-customer | nearest-nontpmr } admin-status
```

In IRF physical interface view:

```
lldp admin-status { disable | rx | tx | txrx }  
undo lldp admin-status
```

Default

The nearest bridge agent operates in **txrx** mode, and the nearest customer bridge agent and nearest non-TPMR bridge agent operate in **disable** mode.

Views

Layer 2 aggregate interface view
Layer 2 Ethernet interface view
Management Ethernet interface view
IRF physical interface view

Predefined user roles

network-admin

Parameters

agent: Specifies an LLDP agent type. If no agent type is specified in Ethernet interface view, the command configures the operating mode for nearest bridge agents.

nearest-customer: Specifies nearest customer bridge agents.

nearest-nontpmr: Specifies nearest non-TPMR bridge agents.

disable: Specifies the **Disable** mode. A port in this mode cannot send or receive LLDP frames.

rx: Specifies the **Rx** mode. A port in this mode can only receive LLDP frames.

tx: Specifies the **Tx** mode. A port in this mode can only send LLDP frames.

txrx: Specifies the **TxRx** mode. A port in this mode can send and receive LLDP frames.

Examples

```
# Configure the LLDP operating mode as Rx for the nearest customer bridge agents on  
Ten-GigabitEthernet 1/0/1.
```

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

```
[Sysname] interface ten-gigabitethernet 1/0/1
```

```
[Sysname-Ten-GigabitEthernet1/0/1] lldp agent nearest-customer admin-status rx
```

lldp check-change-interval

Use **lldp check-change-interval** to enable LLDP polling and set the polling interval.

Use **undo lldp check-change-interval** to restore the default.

Syntax

In Layer 2 Ethernet interface view or management Ethernet interface view:

```
lldp [ agent { nearest-customer | nearest-nontpmr } ] check-change-interval interval  
undo lldp [ agent { nearest-customer | nearest-nontpmr } ] check-change-interval
```

In Layer 2 aggregate interface view:

```
lldp agent { nearest-customer | nearest-nontpmr } check-change-interval interval  
undo lldp agent { nearest-customer | nearest-nontpmr } check-change-interval
```

In IRF physical interface view:

```
lldp check-change-interval interval  
undo lldp check-change-interval
```

Default

LLDP polling is disabled.

Views

Layer 2 aggregate interface view

Layer 2 Ethernet interface view

Management Ethernet interface view

IRF physical interface view

Predefined user roles

network-admin

Parameters

agent: Specifies an LLDP agent type. If no agent type is specified in Ethernet interface view, the command enables LLDP polling and sets the polling interval for nearest bridge agents.

nearest-customer: Specifies nearest customer bridge agents.

nearest-nontpmr: Specifies nearest non-TPMR bridge agents.

interval: Sets the LLDP polling interval in the range of 1 to 30 seconds.

Examples

```
# Enable LLDP polling and set the polling interval to 30 seconds for the nearest customer bridge agents on Ten-GigabitEthernet 1/0/1.
```

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

```
[Sysname] interface ten-gigabitethernet 1/0/1
```

```
[Sysname-Ten-GigabitEthernet1/0/1] lldp agent nearest-customer check-change-interval 30
```

lldp compliance admin-status cdp

Use **lldp compliance admin-status cdp** to configure the operating mode of CDP-compatible LLDP.

Use **undo lldp compliance admin-status cdp** to restore the default.

Syntax

```
lldp compliance admin-status cdp { disable | rx | txrx }  
undo lldp compliance admin-status cdp
```

Default

CDP-compatible LLDP operates in **disable** mode.

Views

Layer 2 Ethernet interface view, management Ethernet interface view

Predefined user roles

network-admin

Parameters

disable: Specifies the disable mode. CDP-compatible LLDP in this mode cannot receive or transmit CDP packets.

rx: Specifies the Rx mode. CDP-compatible LLDP in this mode can receive but cannot transmit CDP packets.

txrx: Specifies the TxRx mode. CDP-compatible LLDP in this mode can transmit and receive CDP packets.

Usage guidelines

For your device to work with Cisco IP phones, you must perform the following tasks:

- Enable CDP-compatible LLDP globally.
- Configure CDP-compatible LLDP to operate in TxRx mode on the specified ports.

Examples

```
# Enable CDP-compatible LLDP globally and configure CDP-compatible LLDP to operate in TxRx mode on Ten-GigabitEthernet 1/0/1.
```

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

```
[Sysname] lldp compliance cdp
```

```
[Sysname] interface ten-gigabitethernet 1/0/1
```

```
[Sysname-Ten-GigabitEthernet1/0/1] lldp compliance admin-status cdp txrx
```

Related commands

lldp compliance cdp

lldp compliance cdp

Use **lldp compliance cdp** to enable CDP compatibility globally.

Use **undo lldp compliance cdp** to restore the default.

Syntax

lldp compliance cdp

undo lldp compliance cdp

Default

CDP compatibility is globally disabled.

Views

System view

Predefined user roles

network-admin

Usage guidelines

The maximum TTL that CDP allows is 255 seconds. To make CDP-compatible LLDP work correctly with Cisco IP phones, configure the LLDP frame transmission interval to be no more than 1/3 of the TTL value.

Examples

```
# Enable CDP compatibility globally.  
<Sysname> system-view  
[Sysname] lldp compliance cdp
```

Related commands

- **lldp hold-multiplier**
- **lldp timer tx-interval**

lldp enable

Use **lldp enable** to enable LLDP on a port.

Use **undo lldp enable** to disable LLDP on a port.

Syntax

lldp enable

undo lldp enable

Default

LLDP is enabled on a port.

Views

Layer 2 aggregate interface view

Layer 2 Ethernet interface view

Management Ethernet interface view

IRF physical interface view

Predefined user roles

network-admin

Usage guidelines

LLDP takes effect on a port only when LLDP is enabled both globally and on the port.

Examples

```
# Disable LLDP on Ten-GigabitEthernet 1/0/1.  
<Sysname> system-view  
[Sysname] interface ten-gigabitethernet 1/0/1  
[Sysname-Ten-GigabitEthernet1/0/1] undo lldp enable
```

Related commands

lldp global enable

lldp encapsulation snap

Use **lldp encapsulation snap** to configure the encapsulation format for LLDP frames as SNAP.

Use **undo lldp encapsulation** to restore the default.

Syntax

In Layer 2 Ethernet interface view or management Ethernet interface view:

lldp [agent { nearest-customer | nearest-nontpmr }] encapsulation snap

undo lldp [agent { nearest-customer | nearest-nontpmr }] encapsulation

In Layer 2 aggregate interface view:

lldp agent { nearest-customer | nearest-nontpmr } encapsulation snap

undo lldp agent { nearest-customer | nearest-nontpmr } encapsulation

In IRF physical interface view:

lldp encapsulation snap

undo lldp encapsulation

Default

The encapsulation format for LLDP frames is Ethernet II.

Views

Layer 2 aggregate interface view

Layer 2 Ethernet interface view

Management Ethernet interface view

IRF physical interface view

Predefined user roles

network-admin

Parameters

agent: Specifies an LLDP agent type. If no agent type is specified in Ethernet interface view, the command configures the LLDP frame encapsulation format for nearest bridge agents.

nearest-customer: Specifies nearest customer bridge agents.

nearest-nontpmr: Specifies nearest non-TPMR bridge agents.

Usage guidelines

LLDP-CDP packets use only SNAP encapsulation.

LLDP frames carrying the EVB module TLVs cannot be encapsulated in SNAP format.

Examples

Configure the encapsulation format for LLDP frames as SNAP on Ten-GigabitEthernet 1/0/1.

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

```
[Sysname] interface ten-gigabitethernet 1/0/1
```

```
[Sysname-Ten-GigabitEthernet1/0/1] lldp encapsulation snap
```

lldp fast-count

Use **lldp fast-count** to set the number of LLDP frames sent each time fast LLDP frame transmission is triggered.

Use **undo lldp fast-count** to restore the default.

Syntax

lldp fast-count *count*

undo lldp fast-count

Default

The number is 4.

Views

System view

Predefined user roles

network-admin

Parameters

count: Sets the number of LLDP frames sent each time fast LLDP frame transmission is triggered. The value range is 1 to 8.

Examples

Configure the device to send five LLDP frames each time fast LLDP frame transmission is triggered.

```
<Sysname> system-view  
[Sysname] lldp fast-count 5
```

Ildp global enable

Use **lldp global enable** to enable LLDP globally.

Use **undo lldp global enable** to disable LLDP globally.

Syntax

lldp global enable

undo lldp global enable

Default

If the switch starts up with empty configuration, LLDP is disabled globally (initial setting).

If the switch starts up with the default configuration file, LLDP is enabled globally (factory default).

For more information about empty configuration and the default configuration file, see *Fundamentals Configuration Guide*.

Views

System view

Predefined user roles

network-admin

Usage guidelines

LLDP takes effect on a port only when LLDP is enabled both globally and on the port.

Examples

```
# Disable LLDP globally.  
<Sysname> system-view  
[Sysname] undo lldp global enable
```

Related commands

lldp enable

Ildp hold-multiplier

Use **lldp hold-multiplier** to set the TTL multiplier.

Use **undo lldp hold-multiplier** to restore the default.

Syntax

```
lldp hold-multiplier value  
undo lldp hold-multiplier
```

Default

The TTL multiplier is 4.

Views

System view

Predefined user roles

network-admin

Parameters

value: Sets the TTL multiplier in the range of 2 to 10.

Usage guidelines

The TTL TLV carried in an LLDPDU determines how long the device information carried in the LLDPDU can be saved on a recipient device.

By setting the TTL multiplier, you can configure the TTL of locally sent LLDPDUs, which determines how long information about the local device can be saved on a neighboring device. The TTL is expressed by using the following formula:

$$\text{TTL} = \text{Min} (65535, (\text{TTL multiplier} \times \text{LLDP frame transmission interval} + 1))$$

As the expression shows, the TTL can be up to 65535 seconds.

Examples

```
# Set the TTL multiplier to 6.  
<Sysname> system-view  
[Sysname] lldp hold-multiplier 6
```

Related commands

lldp timer tx-interval

lldp ignore-pvid-inconsistency

Use **lldp ignore-pvid-inconsistency** to disable LLDP PVID inconsistency check.

Use **undo lldp ignore-pvid-inconsistency** to enable LLDP PVID inconsistency check.

Syntax

```
lldp ignore-pvid-inconsistency  
undo lldp ignore-pvid-inconsistency
```

Default

LLDP PVID inconsistency check is enabled.

Views

System view

Default command level

network-admin

Usage guidelines

By default, when the system receives an LLDP packet, it compares the PVID value contained in the packet with the PVID configured on the receiving interface. If the two PVIDs do not match, a log message will be printed to notify the user.

You can disable PVID inconsistency check if different PVIDs are required on a link.

Examples

```
# Disable LLDP PVID inconsistency check.
<Sysname> system-view
[Sysname] lldp ignore-pvid-inconsistency
```

Ildp management-address-format string

Use **lldp management-address-format string** to configure the encoding format of the management address as string.

Use **undo lldp management-address-format** to restore the default.

Syntax

In Layer 2 Ethernet interface view or management Ethernet interface view:

```
lldp [ agent { nearest-customer | nearest-nontpmr } ] management-address-format string  
undo lldp [ agent { nearest-customer | nearest-nontpmr } ] management-address-format
```

In Layer 2 aggregate interface view:

```
lldp agent { nearest-customer | nearest-nontpmr } management-address-format string  
undo lldp agent { nearest-customer | nearest-nontpmr } management-address-format
```

Default

The encoding format of the management address is numeric.

Views

Layer 2 aggregate interface view

Layer 2 Ethernet interface view

Management Ethernet interface view

Predefined user roles

network-admin

Parameters

agent: Specifies an LLDP agent type. If no agent type is specified in Ethernet interface view, the command configures the encoding format of the management address for nearest bridge agents.

nearest-bridge: Specifies nearest bridge agents.

nearest-customer: Specifies nearest customer bridge agents.

nearest-nontpmr: Specifies nearest non-TPMR bridge agents.

Usage guidelines

LLDP neighbors must use the same encoding format for the management address.

Examples

```
# Configure the encoding format of the management address as string for the nearest customer  
bridge agents on Ten-GigabitEthernet 1/0/1.  
<Sysname> system-view
```

```
[Sysname] interface ten-gigabitethernet 1/0/1
[Sysname-Ten-GigabitEthernet1/0/1] lldp agent nearest-customer
management-address-format string
```

Ildp max-credit

Use **lldp max-credit** to set the token bucket size for sending LLDP frames.

Use **undo lldp max-credit** to restore the default.

Syntax

lldp max-credit *credit-value*

undo lldp max-credit

Default

The token bucket size for sending LLDP frames is 5.

Views

System view

Predefined user roles

network-admin

Parameters

credit-value: Specifies the token bucket size for sending LLDP frames, in the range of 1 to 100.

Examples

```
# Set the token bucket size for sending LLDP frames to 10.
```

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

```
[Sysname] lldp max-credit 10
```

Ildp mode

Use **lldp mode** to configure LLDP to operate in service bridge mode.

Use **undo lldp mode** to restore the default.

Syntax

lldp mode service-bridge

undo lldp mode

Default

LLDP operates in customer bridge mode.

Views

System view

Predefined user roles

network-admin

Parameters

service-bridge: Specifies the service bridge mode.

Usage guidelines

The LLDP agent types supported by LLDP depend on the LLDP bridge mode:

- **Service bridge mode**—LLDP supports nearest bridge agents and nearest non-TPMR bridge agents. LLDP processes the LLDP frames with destination MAC addresses for these agents and transparently transmits the LLDP frames with other destination MAC addresses in the VLAN.
- **Customer bridge mode**—LLDP supports nearest bridge agents, nearest non-TPMR bridge agents, and nearest customer bridge agents. LLDP processes the LLDP frames with destination MAC addresses for these agents and transparently transmits the LLDP frames with other destination MAC addresses in the VLAN.

The bridge mode configuration takes effect only when LLDP is enabled globally. If LLDP is disabled globally, LLDP can only operate in customer bridge mode.

Examples

```
# Configure LLDP to operate in service bridge mode.
<Sysname> system-view
[Sysname] lldp mode service-bridge
```

Related commands

lldp global enable

lldp neighbor-identity chassis-id

Use **lldp neighbor-identity chassis-id** to configure the chassis ID TLV criterion for neighbor validation.

Use **undo lldp neighbor-identity chassis-id** to restore the default.

Syntax

```
lldp neighbor-identity chassis-id chassis-id-subtype chassis-id
undo lldp neighbor-identity chassis-id
```

Default

No chassis ID TLV criterion is configured on an interface for neighbor validation.

Views

Layer 2 Ethernet interface view

Predefined user roles

network-admin

Parameters

chassis-id-subtype: Specifies the chassis ID subtype. The value is an integer in the range of 1 to 7. The chassis ID subtype indicates the type of identifier used for the chassis. [Table 6](#) lists the available chassis ID subtypes and the ID bases.

Table 6 Chassis ID subtypes

Chassis ID subtype	ID basis
1	Chassis component
2	Interface alias
3	Port component
4	MAC address
5	Network address

Chassis ID subtype	ID basis
6	Interface name
7	Locally assigned

chassis-id: Specifies the chassis ID, a case-sensitive string of 1 to 255 characters.

Usage guidelines

The chassis ID TLV criterion configured on an interface takes effect only after the **lldp neighbor-protection validation** command is configured on the interface.

If you execute this command multiple times for an interface, the most recent configuration takes effect.

Examples

```
# Configure the chassis ID TLV criterion on Ten-GigabitEthernet 1/0/1 for neighbor validation.
<Sysname> system-view
[Sysname] interface ten-gigabitethernet 1/0/1
[Sysname-Ten-GigabitEthernet1/0/1] lldp neighbor-identity chassis-id 4 0012-2255-7766
```

Related commands

lldp neighbor-protection validation

lldp neighbor-identity port-id

Use **lldp neighbor-identity port-id** to configure the port ID TLV criterion for neighbor validation.

Use **undo lldp neighbor-identity port-id** to restore the default.

Syntax

```
lldp neighbor-identity port-id port-id-subtype port-id
undo lldp neighbor-identity port-id
```

Default

No port ID TLV criterion is configured on an interface for neighbor validation.

Views

Layer 2 Ethernet interface view

Predefined user roles

network-admin

Parameters

port-id-subtype: Specifies the port ID subtype. The value is an integer in the range of 1 to 7. The port ID subtype indicates the type of identifier used for the port. [Table 7](#) lists the available port ID subtypes and the ID bases.

Table 7 Port ID subtypes

Port ID subtype	ID basis
1	Interface alias
2	Port component
3	MAC address

Port ID subtype	ID basis
4	Network address
5	Interface name
6	Agent circuit ID
7	Locally assigned

port-id: Specifies the port ID, a case-sensitive string of 1 to 255 characters.

Usage guidelines

The port ID TLV criterion configured on an interface takes effect only after the **lldp neighbor-protection validation** command is configured on the interface.

If you execute this command multiple times for an interface, the most recent configuration takes effect.

Examples

```
# Configure the port ID TLV on Ten-GigabitEthernet 1/0/1 for neighbor validation.
<Sysname> system-view
[Sysname] interface ten-gigabitethernet 1/0/1
[Sysname-Ten-GigabitEthernet1/0/1] lldp neighbor-identity port-id 5
ten-gigabitethernet1/0/1
```

Related commands

lldp neighbor-protection validation

lldp neighbor-protection aging

Use **lldp neighbor-protection aging** to enable LLDP neighbor aging and configure the protection action on an interface.

Use **undo lldp neighbor-protection aging** to restore the default.

Syntax

```
lldp neighbor-protection aging { block | shutdown }
undo lldp neighbor-protection aging
```

Default

LLDP neighbor aging is disabled on an interface

Views

Layer 2 Ethernet interface view

Predefined user roles

network-admin

Parameters

block: Blocks the interface. The **block** action places the data link layer protocol of the interface in **DOWN** state. In this state, the interface cannot transfer data packets. The data transfer capability is automatically recovered when the interface receives an LLDP packet.

shutdown: Shuts down the interface. The **shutdown** action places the interface in **LLDP DOWN** state. In this state, the interface can neither transfer data packets nor LLDP packets. You must manually execute the **undo lldp neighbor-protection aging** or **undo shutdown** command to bring up the interface.

Examples

```
# Enable LLDP neighbor aging on Ten-GigabitEthernet 1/0/1 and set the protection action to block.
<Sysname> system-view
[Sysname] interface ten-gigabitethernet 1/0/1
[Sysname-Ten-GigabitEthernet1/0/1] lldp neighbor-protection aging block
```

Related commands

- **Ildp hold-multiplier**
- **Ildp timer tx-interval**

Ildp neighbor-protection validation

Use **Ildp neighbor-protection validation** to enable neighbor validation on an interface.

Use **undo Ildp neighbor-protection validation** to disable neighbor validation on an interface.

Syntax

Ildp neighbor-protection validation

undo Ildp neighbor-protection validation

Default

Neighbor validation is disabled on an interface.

Views

Layer 2 Ethernet interface view

Predefined user roles

network-admin

Usage guidelines

LLDP neighbor validation enables an interface to validate the identity of the neighbor based on the neighbor validation criteria configured on the interface. The neighbor validation criteria can be the chassis ID TLV, port ID TLV, or both. Each incoming LLDP packet must match all the validation criteria configured on the interface. If the neighbor information in a packet does not match the criteria, the system shuts down the data link layer and disables data transmission for the interface.

For neighbor validation to work, you must configure a minimum of one neighbor validation criterion on the interface by using the **Ildp neighbor-identity** command.

Examples

```
# Enable neighbor validation on Ten-GigabitEthernet 1/0/1.
<Sysname> system-view
[Sysname] interface ten-gigabitethernet 1/0/1
[Sysname-Ten-GigabitEthernet1/0/1] lldp neighbor-protection validation
```

Related commands

- **Ildp neighbor-identity chassis-id**
- **Ildp neighbor-identity port-id**

Ildp notification med-topology-change enable

Use **Ildp notification med-topology-change enable** to enable LLDP-MED trapping.

Use **undo Ildp notification med-topology-change enable** to disable LLDP-MED trapping.

Syntax

lldp notification med-topology-change enable
undo lldp notification med-topology-change enable

Default

LLDP-MED trapping is disabled on ports.

Views

Layer 2 Ethernet interface view, management Ethernet interface view

Predefined user roles

network-admin

Examples

```
# Enable LLDP-MED trapping for Ten-GigabitEthernet 1/0/1.  
<Sysname> system-view  
[Sysname] interface ten-gigabitethernet 1/0/1  
[Sysname-Ten-GigabitEthernet1/0/1] lldp notification med-topology-change enable
```

Ildp notification remote-change enable

Use **lldp notification remote-change enable** to enable LLDP trapping.

Use **undo lldp notification remote-change enable** to disable LLDP trapping.

Syntax

In Layer 2 Ethernet interface view or management Ethernet interface view:

lldp [agent { nearest-customer | nearest-nontpmr }] notification remote-change enable
undo lldp [agent { nearest-customer | nearest-nontpmr }] notification remote-change enable

In Layer 2 aggregate interface view:

lldp agent { nearest-customer | nearest-nontpmr } notification remote-change enable
undo lldp agent { nearest-customer | nearest-nontpmr } notification remote-change enable

In IRF physical interface view:

lldp notification remote-change enable
undo lldp notification remote-change enable

Default

LLDP trapping is disabled on ports.

Views

Layer 2 aggregate interface view

Layer 2 Ethernet interface view

Management Ethernet interface view

IRF physical interface view

Predefined user roles

network-admin

Parameters

agent: Specifies an LLDP agent type. If no agent type is specified in Ethernet interface view, the command enables LLDP trapping for nearest bridge agents.

nearest-customer: Specifies nearest customer bridge agents.

nearest-nontpmr: Specifies nearest non-TPMR bridge agents.

Examples

```
# Enable LLDP trapping for the nearest customer bridge agents on Ten-GigabitEthernet 1/0/1.
<Sysname> system-view
[Sysname] interface ten-gigabitethernet 1/0/1
[Sysname-Ten-GigabitEthernet1/0/1] lldp agent nearest-customer notification
remote-change enable
```

Ildp timer fast-interval

Use **lldp timer fast-interval** to set the interval for fast LLDP frame transmission.

Use **undo lldp timer fast-interval** to restore the default.

Syntax

lldp timer fast-interval *interval*

undo lldp timer fast-interval

Default

The interval for fast LLDP frame transmission is 1 second.

Views

System view

Predefined user roles

network-admin

Parameters

interval: Sets an interval for fast LLDP frame transmission, in the range of 1 to 3600 seconds.

Examples

```
# Set the interval for fast LLDP frame transmission to 2 seconds.
<Sysname> system-view
[Sysname] lldp timer fast-interval 2
```

Ildp timer notification-interval

Use **lldp timer notification-interval** to set the LLDP trap and LLDP-MED trap transmission interval.

Use **undo lldp timer notification-interval** to restore the default.

Syntax

lldp timer notification-interval *interval*

undo lldp timer notification-interval

Default

The LLDP trap and LLDP-MED trap transmission interval is 30 seconds.

Views

System view

Predefined user roles

network-admin

Parameters

interval: Sets the LLDP trap and LLDP-MED trap transmission interval in the range of 5 to 3600 seconds.

Examples

```
# Set both the LLDP trap and LLDP-MED trap transmission interval to 8 seconds.
```

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

```
[Sysname] lldp timer notification-interval 8
```

Ildp timer reinit-delay

Use **lldp timer reinit-delay** to set the LLDP reinitialization delay.

Use **undo lldp timer reinit-delay** to restore the default.

Syntax

```
lldp timer reinit-delay delay
```

```
undo lldp timer reinit-delay
```

Default

The LLDP reinitialization delay is 2 seconds.

Views

System view

Predefined user roles

network-admin

Parameters

delay: Sets the LLDP reinitialization delay in the range of 1 to 10 seconds.

Examples

```
# Set the LLDP reinitialization delay to 4 seconds.
```

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

```
[Sysname] lldp timer reinit-delay 4
```

Ildp timer tx-interval

Use **lldp timer tx-interval** to set the LLDP frame transmission interval.

Use **undo lldp timer tx-interval** to restore the default.

Syntax

```
lldp timer tx-interval interval
```

```
undo lldp timer tx-interval
```

Default

The LLDP frame transmission interval is 30 seconds.

Views

System view

Predefined user roles

network-admin

Parameters

interval: Sets the LLDP frame transmission interval in the range of 5 to 32768 seconds.

Examples

```
# Set the LLDP frame transmission interval to 20 seconds.
```

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

```
[Sysname] lldp timer tx-interval 20
```

Ildp tlv-enable

Use **lldp tlv-enable** to configure the types of advertisable TLVs.

Use **undo lldp tlv-enable** to disable the advertising of the specified types of TLVs.

Syntax

In Layer 2 Ethernet interface view:

- For nearest bridge agents:

```
lldp tlv-enable { basic-tlv { all | port-description | system-capability | system-description | system-name | management-address-tlv [ ipv6 ] [ ip-address ] } | dot1-tlv { all | congestion-notification | port-vlan-id | link-aggregation | dcbx | protocol-vlan-id [ vlan-id ] | vlan-name [ vlan-id ] | management-vid [ mvlan-id ] } | dot3-tlv { all | mac-physic | max-frame-size | power } | med-tlv { all | capability | inventory | network-policy [ vlan-id ] | power-over-ethernet | location-id { civic-address device-type country-code { ca-type ca-value }&<1-10> | elin-address tel-number } } }
```

```
undo lldp tlv-enable { basic-tlv { all | port-description | system-capability | system-description | system-name | management-address-tlv [ ipv6 ] [ ip-address ] } | dot1-tlv { all | congestion-notification | port-vlan-id | link-aggregation | dcbx | protocol-vlan-id | vlan-name | management-vid } | dot3-tlv { all | mac-physic | max-frame-size | power } | med-tlv { all | capability | inventory | network-policy | power-over-ethernet | location-id } }
```

- For nearest non-TPMR bridge agents:

```
lldp agent nearest-nontpmr tlv-enable { basic-tlv { all | port-description | system-capability | system-description | system-name | management-address-tlv [ ipv6 ] [ ip-address ] } | dot1-tlv { all | congestion-notification | evb | port-vlan-id | link-aggregation } }
```

```
undo lldp agent nearest-nontpmr tlv-enable { basic-tlv { all | port-description | system-capability | system-description | system-name | management-address-tlv [ ipv6 ] [ ip-address ] } | dot1-tlv { all | congestion-notification | evb | port-vlan-id | link-aggregation } }
```

- For nearest customer bridge agents:

```
lldp agent nearest-customer tlv-enable { basic-tlv { all | port-description | system-capability | system-description | system-name | management-address-tlv [ ipv6 ] [ ip-address ] } | dot1-tlv { all | congestion-notification | port-vlan-id | link-aggregation } }
```

```
undo lldp agent nearest-customer tlv-enable { basic-tlv { all | port-description | system-capability | system-description | system-name | management-address-tlv [ ipv6 ] [ ip-address ] } | dot1-tlv { all | congestion-notification | port-vlan-id | link-aggregation } }
```

In management Ethernet interface view:

- **Ildp tlv-enable** { **basic-tlv** { **all** | **port-description** | **system-capability** | **system-description** | **system-name** | **management-address-tlv** [**ipv6**] [*ip-address*] } | **dot1-tlv** { **all** | **link-aggregation** } | **dot3-tlv** { **all** | **mac-physic** | **max-frame-size** | **power** } | **med-tlv** { **all** | **capability** | **inventory** | **power-over-ethernet** | **location-id** { **civic-address** *device-type country-code* { *ca-type ca-value* }&<1-10> | **elin-address** *tel-number* } } }
- **Ildp agent** { **nearest-nontpmr** | **nearest-customer** } **tlv-enable** { **basic-tlv** { **all** | **port-description** | **system-capability** | **system-description** | **system-name** | **management-address-tlv** [**ipv6**] [*ip-address*] } | **dot1-tlv** { **all** | **link-aggregation** } }
- **undo Ildp tlv-enable** { **basic-tlv** { **all** | **port-description** | **system-capability** | **system-description** | **system-name** | **management-address-tlv** [**ipv6**] [*ip-address*] } | **dot1-tlv** { **all** | **link-aggregation** } | **dot3-tlv** { **all** | **mac-physic** | **max-frame-size** | **power** } | **med-tlv** { **all** | **capability** | **inventory** | **power-over-ethernet** | **location-id** } }
- **undo Ildp agent** { **nearest-nontpmr** | **nearest-customer** } **tlv-enable** { **basic-tlv** { **all** | **port-description** | **system-capability** | **system-description** | **system-name** | **management-address-tlv** [**ipv6**] [*ip-address*] } | **dot1-tlv** { **all** | **link-aggregation** } }

In Layer 2 aggregate interface view:

- **Ildp agent nearest-nontpmr tlv-enable** { **basic-tlv** { **all** | **management-address-tlv** [**ipv6**] [*ip-address*] | **port-description** | **system-capability** | **system-description** | **system-name** } | **dot1-tlv** { **all** | **evb** | **port-vlan-id** } }
- **Ildp agent nearest-customer tlv-enable** { **basic-tlv** { **all** | **management-address-tlv** [**ipv6**] [*ip-address*] | **port-description** | **system-capability** | **system-description** | **system-name** } | **dot1-tlv** { **all** | **port-vlan-id** } }
- **Ildp tlv-enable dot1-tlv** { **protocol-vlan-id** [*vlan-id*] | **vlan-name** [*vlan-id*] | **management-vid** [*mvlan-id*] }
- **undo Ildp agent nearest-nontpmr tlv-enable** { **basic-tlv** { **all** | **management-address-tlv** [**ipv6**] [*ip-address*] | **port-description** | **system-capability** | **system-description** | **system-name** } | **dot1-tlv** { **all** | **evb** | **port-vlan-id** } }
- **undo Ildp agent nearest-customer tlv-enable** { **basic-tlv** { **all** | **management-address-tlv** [**ipv6**] [*ip-address*] | **port-description** | **system-capability** | **system-description** | **system-name** } | **dot1-tlv** { **all** | **port-vlan-id** } }
- **undo Ildp tlv-enable dot1-tlv** { **protocol-vlan-id** | **vlan-name** | **management-vid** }

In IRF physical interface view:

- **Ildp tlv-enable basic-tlv** { **port-description** | **system-capability** | **system-description** | **system-name** }
- **undo Ildp tlv-enable basic-tlv** { **port-description** | **system-capability** | **system-description** | **system-name** }

Default

On Layer 2 Ethernet interfaces:

- Nearest bridge agents can advertise all types of LLDP TLVs except the following types:
 - DCBX TLVs.
 - Location identification TLVs.
 - Port and protocol VLAN ID TLVs.
 - VLAN name TLVs.
 - Management VLAN ID TLVs.
- Nearest non-TPMR bridge agents can advertise only EVB TLVs.
- Nearest customer bridge agents can advertise basic TLVs and IEEE 802.1 organizationally specific TLVs.

On management Ethernet interfaces:

- Nearest bridge agents can advertise all types of LLDP TLVs (only link aggregation TLV in 802.1 organizationally specific TLVs) except network policy TLVs.
- Nearest non-TPMR bridge agents advertise no TLVs.
- Nearest customer bridge agents can advertise basic TLVs and IEEE 802.1 organizationally specific TLVs (only link aggregation TLV).

On Layer 2 aggregate interfaces:

- Nearest non-TPMR bridge agents can advertise only EVB TLVs.
- Nearest customer bridge agents can advertise basic TLVs and IEEE 802.1 organizationally specific TLVs (only port and protocol VLAN ID TLV, VLAN name TLV, and management VLAN ID TLV).

IRF physical interfaces advertise all supported types of TLVs.

Views

Layer 2 aggregate interface view

Layer 2 Ethernet interface view

Management Ethernet interface view

IRF physical interface view

Predefined user roles

network-admin

Parameters

agent: Specifies an LLDP agent type. If no agent type is specified in Ethernet interface view, the command configures the types of advertisable TLVs for nearest bridge agents.

nearest-customer: Specifies nearest customer bridge agents.

nearest-nontpmr: Specifies nearest non-TPMR bridge agents.

all: Advertises all TLVs of the specified type.

- Enables the interface to advertise the following TLVs:
 - All basic LLDP TLVs if the **all** keyword is specified for **basic-tlv**.
 - All IEEE 802.1 organizationally specific LLDP TLVs if the **all** keyword is specified for **dot1-tlv**.
 - All IEEE 802.3 organizationally specific LLDP TLVs if the **all** keyword is specified for **dot3-tlv**.
- Enables the interface to advertise all LLDP-MED TLVs except location identification TLVs if the **all** keyword is specified for **med-tlv**.

basic-tlv: Advertises basic LLDP TLVs.

management-address-tlv [ipv6] [ip-address]: Advertises management address TLVs. The **ipv6** keyword indicates that the management address to be advertised is in IPv6 format. If you do not specify this keyword, the management address in IPv4 format will be advertised. The *ip-address* argument specifies the management address to be advertised.

By default:

- When you execute the **lldp tlv-enable** command:
 - For a Layer 2 Ethernet or aggregate interface, the management address is the primary IPv4/IPv6 address of the VLAN interface meeting the following requirements:
 - In up state.
 - The corresponding VLAN ID is the lowest among the VLANs permitted on the port.

If you specify the **ipv6** keyword, the management address is the primary IPv6 address. If you do not specify the **ipv6** keyword, the management address is the primary IPv4 address.

If none of the VLAN interfaces of the permitted VLANs is assigned an IP address or all VLAN interfaces are down, the MAC address of the port will be advertised.

- For the management Ethernet interface, the IPv4/IPv6 address of the port will be advertised when the *ip-address* argument is not configured.

If you specify the **ipv6** keyword, the management address is the IPv6 address. If you do not specify the **ipv6** keyword, the management address is the IPv4 address.

If the port does not have an IP address, the MAC address of the port will be advertised.

- When you execute the **undo lldp tlv-enable** command:
 - If you do not specify **ipv6** and *ip-address*, the port does not advertise any management address TLVs.
 - If you specify **ipv6** or *ip-address*, the port advertises the default management address TLVs.

port-description: Advertises port description TLVs.

system-capability: Advertises system capabilities TLVs.

system-description: Advertises system description TLVs.

system-name: Advertises system name TLVs.

dot1-tlv: Advertises IEEE 802.1 organizationally specific LLDP TLVs.

congestion-notification: Advertises the QCN module TLV. The QCN module supports only the nearest bridge agent.

dcbx: Advertises the DCBX TLV.

evb: Advertises the EVB module TLVs.

port-vlan-id: Advertises port VLAN ID TLVs.

protocol-vlan-id [*vlan-id*]: Advertises port and protocol VLAN ID TLVs. The *vlan-id* argument specifies a VLAN ID in the TLVs to be advertised. The VLAN ID is in the range of 1 to 4094, and the default is the lowest VLAN ID on the port.

vlan-name [*vlan-id*]: Advertises VLAN name TLVs. The *vlan-id* argument specifies a VLAN ID in the TLVs to be advertised. The VLAN ID is in the range of 1 to 4094, and the default is the lowest VLAN ID on the port.

management-vid [*mvlan-id*]: Advertises the management VLAN ID TLV. The *mvlan-id* argument specifies a management VLAN ID in the TLVs to be advertised. The management VLAN ID is in the range of 1 to 4094. If no management VLAN ID is specified, the value 0 is advertised, which means that the LLDP agent is not configured with a management VLAN ID.

dot3-tlv: Advertises IEEE 802.3 organizationally specific LLDP TLVs.

link-aggregation: Advertises link aggregation TLVs.

mac-physic: Advertises MAC/PHY configuration/status TLVs.

max-frame-size: Advertises maximum frame size TLVs.

power: Advertises power in MDI TLVs and power stateful control TLVs.

med-tlv: Advertises LLDP-MED TLVs.

capability: Advertises LLDP-MED capabilities TLVs.

inventory: Advertises the following TLVs: hardware revision, firmware revision, software revision, serial number, manufacturer name, model name, and asset ID.

location-id: Advertises location identification TLVs.

civic-address: Inserts the typical address information about the network device in location identification TLVs .

device-type: Sets a device type value in the range of 0 to 2:

- Value 0 specifies a DHCP server.
- Value 1 specifies a switch.
- Value 2 specifies an LLDP-MED endpoint.

country-code: Sets a country code defined in ISO 3166.

{ *ca-type ca-value* }&<1-10>: Configures address information. *ca-type* represents the address information type in the range of 0 to 255. *ca-value* represents address information, a string of 1 to 250 characters. &<1-10> indicates that you can specify up to 10 *ca-type ca-value* pairs.

elin-address: Inserts telephone numbers for emergencies in location identification TLVs.

tel-number: Sets the telephone number for emergencies, a string of 10 to 25 characters.

network-policy [*vlan-id*]: Advertises network policy TLVs. The *vlan-id* argument specifies the voice VLAN ID sent to voice terminals, in the range of 1 to 4094. If you do not specify this argument, the command advertises information about the VLAN assigned by the authentication server or the voice VLAN ID configured on the interface. For more information, see "Configuring VLANs."

power-over-ethernet: Advertises extended power-via-MDI TLVs.

Usage guidelines

Nearest bridge agents are not supported on aggregate interfaces.

You can enable the device to advertise multiple types of TLVs by using this command without the **all** keyword specified.

If the MAC/PHY configuration/status TLV is not advertisable, none of the LLDP-MED TLVs will be advertised whether they are advertisable. If the LLDP-MED capabilities TLV is not advertisable, the other LLDP-MED TLVs will not be advertised regardless of whether they are advertisable.

The port and protocol VLAN ID TLV, VLAN name TLV, and management VLAN ID TLV in IEEE 802.1 organizationally specific LLDP TLVs can be configured only for nearest bridge agents. The configuration can be inherited by nearest customer bridge agents and nearest non-TPMR bridge agents.

Examples

```
# Enable the nearest customer bridge agents on Ten-GigabitEthernet 1/0/1 to advertise link aggregation TLVs of the IEEE 802.1 organizationally specific TLVs on Ten-GigabitEthernet 1/0/1.
```

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

```
[Sysname] interface ten-gigabitethernet 1/0/1
```

```
[Sysname-Ten-GigabitEthernet1/0/1] lldp agent nearest-customer tlv-enable dot1-tlv link-aggregation
```