

LLDP (Link Layer Discovery Protocol)

Link Layer Discovery Protocol (LLDP) is a data link layer protocol. Network devices can send LLDPDUs (Link Layer Discovery Protocol Data Units) over their local network to notify other devices of their status. This is a protocol that allows devices in a network to detect each other and announce their status and mutual information.

Disable or stop LLDP function

Procedure:

Steps 1. Check the LLDP feature settings.

```
admin@sonic:~$ show feature status lldp
```

Feature	State	AutoRestart
lldp	enabled	enabled

lldp enabled enabled

Steps 2. Stop LLDP feature.

```
admin@sonic:~$ sudo config feature state lldp disabled
```

Steps 3. Check feature status.

```
admin@sonic:~$ show feature status lldp
```

Feature	State	AutoRestart
lldp	disabled	enabled

lldp disabled enabled

Steps 4. Check the systemd and container status for LLDP feature.

systemd:

```
admin@sonic:~$ sudo systemctl is-active lldp.service
```

inactive

container:(STATUS is exited)

```
admin@sonic:~$ docker ps -a -f name=lldp
```

CONTAINER ID	IMAGE	COMMAND	CREATED
8008cfbceb1e	docker-lldp:latest	"/usr/bin/docker-lld..."	6 weeks ago
Exited (137) 4 minutes ago		lldp	

Steps 5. Save to startup configuration for next booting or "config reload"

```
admin@sonic:~$ sudo config save -y
```

Running command: /usr/local/bin/sonic-cfggen -d --print-data >

/etc/sonic/config_db.json

LLDP global configuration and learning status

Topology:

image2022-1-14_16-26-4.png

Procedure:

Steps 1. Check LLDP default information on SwitchA.

```
admin@sonic:~$ show lldp global
```

LLDP Global configuration:

HELLO TIMER 30
SYSTEM NAME AS5835-54X
SYSTEM DESCRIPTION SONiC Software Version: SONiC.Edgecore-
SONiC_20211125_074752_ec202012_227 - HwSku: Accton-AS5835-54X - Distribution:
Debian 10.11 - Kernel: 4.19.0-12-2-amd64

Step2. Modified the LLDP information on SwitchA.

```
admin@sonic:~$ sudo config lldp global hello_timer 10
```

```
admin@sonic:~$ sudo config lldp global management_ip 1.1.1.1
```

```
admin@sonic:~$ sudo config lldp global system_description AS5835-54X_SWITCHA
```

```
admin@sonic:~$ sudo config lldp global system_name SWITCHA
```

Result:

Check LLDP table information on SwitchB.

admin@sonic:~\$ show lldp table

Capability codes: (R) Router, (B) Bridge, (O) Other

LocalPort	RemoteDevice	RemotePortID	Capability	RemotePortDescr
Ethernet0		8c:ea:1b:30:da:4f		
Ethernet56	SWITCHA	Eth51/1(Port51)	BR	Ethernet56
eth0	tor-1.on.ec	swp32	BR	swp32

Total entries displayed: 3

Check LLDP detail neighbor information on SwitchB.

admin@sonic:~\$ show lldp neighbors Ethernet56

LLDP neighbors:

Interface: Ethernet56, via: LLDP, RID: 3, Time: 0 day, 00:01:55

Chassis:

ChassisID: mac 04:f8:f8:8d:81:e1

SysName: SWITCHA

SysDescr: AS5835-54X_SWITCHA

MgmtIP: 1.1.1.1

Capability: Bridge, on

Capability: Router, on

Capability: Wlan, off

Capability: Station, off

Port:

PortID: local Eth51/1(Port51)

PortDescr: Ethernet56

TTL: 40

LLDP-MED:

Device Type: Network Connectivity Device

Capability: Capabilities, yes

Capability: Policy, yes

Capability: Location, yes

Capability: MDI/PSE, yes

Capability: MDI/PD, yes

Capability: Inventory, yes

Inventory:

Hardware Revision: R0CA

Software Revision: 4.19.0-12-2-amd64

Firmware Revision: v43.01.01.00

Serial Number: AK02069566

Manufacturer: Accton

Model: AS5835-54_IKM_T

Asset ID: None

Frequently Asked Question

How to restore the LLDP setting to default.

Tested model & firmware version:

Switch model name:

DCS203 (AS7326-56X)

Edgecore SONiC version:

202111.1

202111.3

Problem description:

There's no command for remove/delete LLDP global configuration.

admin@sonic:~\$ sudo config lldp global --help

Usage: config lldp global [OPTIONS] COMMAND [ARGS]...

LLDP global configuration

Options:

-h, -?, --help Show this message and exit.

Commands:

hello_timer	LLDP protocol hello timer
management_ip	LLDP protocol management IP address.
system_description	LLDP protocol system description
system_name	LLDP protocol system name

Solution:

Step 1: Create an LLDP JSON file.

```
admin@sonic:~$ cat LLDP_default.json
```

```
{  
  "LLDP": null  
}
```

Step 2: execute this command.

```
admin@sonic:~$ sudo config load LLDP_default.json -y
```

Running command: /usr/local/bin/sonic-cfggen -j LLDP_default.json --write-to-db

Step 3: Disable the LLDP service. (It needs some time to disable, about 5~10 sec)

```
admin@sonic:~$ sudo config feature state lldp disabled
```

Step 4: Enable the LLDP service.

```
admin@sonic:~$ sudo config feature state lldp enabled.
```