

UDLD Configuration

UDLD (Unidirectional Link Detection) is used for detecting optical fiber unidirectional links. It supports two modes of operation: normal mode (the default) and aggressive mode. In normal mode, UDLD can detect unidirectional links due to mis-connected interfaces. In aggressive mode, UDLD can also detect unidirectional links due to one-way traffic, twisted-pair links, and mis-connected interfaces. You can enable UDLD globally or on specific ports. When UDLD detects a uni-directional fault, the port status will be set to Disabled (UDLD) and down, and there is no UDLD neighbor. In addition, UDLD can detect the self-loop port and disable this port. Self-loop means TX links to RX on the same port.

NOTE:

- The hostname ([set system hostname](#)) of the devices at both ends of the UDLD cannot be the same. If they are the same, UDLD considers that there is a loop. The port status will be set to Disabled (UDLD) and down, and there will be no UDLD neighbor.
- Caution: Do not configure up-mode with UDLD, as this may cause the peer interface to be disabled unexpectedly by UDLD.

Configure UDLD normal mode on global

```
admin@XorPlus# set protocols udld disable false
admin@XorPlus# commit
Commit OK.
Save done.
```

Configure UDLD aggressive mode on global

```
admin@XorPlus# set protocols udld disable false
admin@XorPlus# set protocols udld aggressive true
admin@XorPlus# commit
Commit OK.
Save done.
```

Configure UDLD normal mode on Specific Port

```
admin@XorPlus# set protocols udld interface te-1/1/27 disable false
admin@XorPlus# commit
Commit OK.
Save done.
```

Configure UDLD aggressive mode on Specific Port

```
admin@XorPlus# set protocols udld interface te-1/1/27 disable false
admin@XorPlus# set protocols udld interface te-1/1/27 aggressive true
admin@XorPlus# commit
Merging the configuration.
Commit OK.
Save done.
```

Configure UDLD Message-interval

```
admin@XorPlus# set protocols udd message-interval 20
admin@XorPlus# commit
Commit OK.
Save done.
```

UDLD status as follows when the link is good

```
admin@Xorplus# run show udd neighbors
  Port          Device Name      Device ID          Port ID          state
-----
te-1/1/27      3295             QTFQXI10700003   te-1/1/49       bi-directional

admin@Xorplus# run show udd interface te-1/1/27
Interface te-1/1/27
-----
Udd enabled, aggressive mode
Current bidirectional state: bi-directional
Current phase: advertisement
Message interval: 15s
Timeout interval: 5s
  neighbor 1
  -----
  Expiration time: 43.58s
  Device ID: QTFQXI10700003
  Port ID: te-1/1/49
  Message interval: 20s
  Timeout interval: 5s
  Device name: 3295
```

UDLD status as follows when UDLD detect uni-directional fault

```
admin@Xorplus# run show udd neighbors
  Port          Device Name      Device ID          Port ID          state
-----

admin@Xorplus# run show udd interface te-1/1/27
Interface te-1/1/27
-----
Udd enabled
Current bidirectional state: uni-directional
Current phase: linkdown
Message interval: 7s
Timeout interval: 5s

admin@XorPlus# run show interface gigabit-ethernet te-1/1/27
Physical interface: te-1/1/27, Enabled, error-discard True(UDLD), Physical link is Down
Interface index: 27, SFP type: SR/850
Description:
Link-level type: Ethernet, MTU: 1514, Speed: Auto, Duplex: Full
Source filtering: Disabled, Flow control: Disabled, Auto-negotiation: Enabled
Interface flags: Hardware-Down SNMP-Traps Internal: 0x0
Interface rate limit ingress:0, egress:0
Current address: 00:90:4c:06:a5:73, Hardware address: 00:90:4c:06:a5:73
Traffic statistics:
  5 sec input rate 0 bits/sec, 0 packets/sec
  5 sec output rate 0 bits/sec, 0 packets/sec
  Input Packets.....16
  Output Packets.....1360
  Input Octets.....1797
  Output Octets.....157178
```

UDLD status when self loop link

The example is that tx connect with rx on the same port te-1/1/27. The udld status will be transmit-to-receive loop, and the port status will be setted Disabled(UDLD) and down, and there is no udld neighbor.

```
admin@Xorplus# run show udld neighbors
  Port          Device Name      Device ID      Port ID      state
  -----
admin@Xorplus# run show udld interface te-1/1/27
Interface te-1/1/27
-----
Udld enabled, aggressive mode
Current bidirectional state: transmit-to-receive loop
Current phase: linkdown
Message interval: 7s
Timeout interval: 5s

admin@XorPlus# run show interface gigabit-ethernet te-1/1/27
Physical interface: te-1/1/27, Disabled(UDLD), error-discard False, Physical link is Down
Interface index: 27, SFP type: SR/850
Description:
Link-level type: Ethernet, MTU: 1514, Speed: Auto, Duplex: Full
Source filtering: Disabled, Flow control: Disabled, Auto-negotiation: Enabled
Interface flags: Hardware-Down SNMP-Traps Internal: 0x0
Interface rate limit ingress:0, egress:0
Current address: 00:90:4c:06:a5:73, Hardware address: 00:90:4c:06:a5:73
Traffic statistics:
 5 sec input rate 0 bits/sec, 0 packets/sec
 5 sec output rate 0 bits/sec, 0 packets/sec
Input Packets.....16
Output Packets.....1360
Input Octets.....1797
Output Octets.....157178
```

Recover port status Disabled(UDLD)

You can through down, up the port to recover the status Disabled(UDLD)

```
admin@XorPlus# set interface gigabit-ethernet te-1/1/27 disable true
admin@XorPlus# commit
Commit OK.
Save done.
admin@XorPlus# set interface gigabit-ethernet te-1/1/27 disable false
admin@XorPlus# commit
Commit OK.
Save done.
admin@XorPlus# run show interface gigabit-ethernet te-1/1/27
Physical interface: te-1/1/27, Enabled, error-discard False, Physical link is Down
Interface index: 27, SFP type: SR/850
Description:
Link-level type: Ethernet, MTU: 1514, Speed: Auto, Duplex: Full
Source filtering: Disabled, Flow control: Disabled, Auto-negotiation: Enabled
Interface flags: Hardware-Down SNMP-Traps Internal: 0x0
Interface rate limit ingress:0, egress:0
Current address: 00:90:4c:06:a5:73, Hardware address: 00:90:4c:06:a5:73
Traffic statistics:
 5 sec input rate 0 bits/sec, 0 packets/sec
 5 sec output rate 0 bits/sec, 0 packets/sec
Input Packets.....16
Output Packets.....1360
Input Octets.....1797
Output Octets.....157178
```

Or you can using follow command to recover the status Disabled(UDLD)

```
admin@XorPlus# run clear uddl
admin@XorPlus# run show interface gigabit-ethernet te-1/1/27
Physical interface: te-1/1/27, Enabled, error-discard False, Physical link is Down
Interface index: 27, SFP type: SR/850
Description:
Link-level type: Ethernet, MTU: 1514, Speed: Auto, Duplex: Full
Source filtering: Disabled, Flow control: Disabled, Auto-negotiation: Enabled
Interface flags: Hardware-Down SNMP-Traps Internal: 0x0
Interface rate limit ingress:0, egress:0
Current address: 00:90:4c:06:a5:73, Hardware address: 00:90:4c:06:a5:73
Traffic statistics:
 5 sec input rate 0 bits/sec, 0 packets/sec
 5 sec output rate 0 bits/sec, 0 packets/sec
Input Packets.....16
Output Packets.....1360
Input Octets.....1797
Output Octets.....157178
```