

# Configure the UDLD Settings on a Switch

## Objective

Unidirectional Link Detection (UDLD) is a Layer 2 protocol that enables devices connected through fiber-optic or twisted-pair Ethernet cables to detect unidirectional links. A unidirectional link occurs whenever traffic from a neighboring device is received by the local device, but traffic from the local device is not received by the neighbor.

The purpose of UDLD is to detect ports on which the neighbor does not receive traffic from the local device (unidirectional link) and to shut down those ports. All connected devices must support UDLD for the protocol to successfully detect unidirectional links. If only the local device supports UDLD, it is not possible for the device to detect the status of the link. In this case, the status of the link is set to Undetermined. The user can configure whether ports in the Undetermined state are shut down or merely trigger notifications.

This article provides instructions on how to configure the UDLD settings on your switch.

## Applicable Devices

- Sx250 Series
- Sx350 Series
- SG350X Series
- Sx550X Series

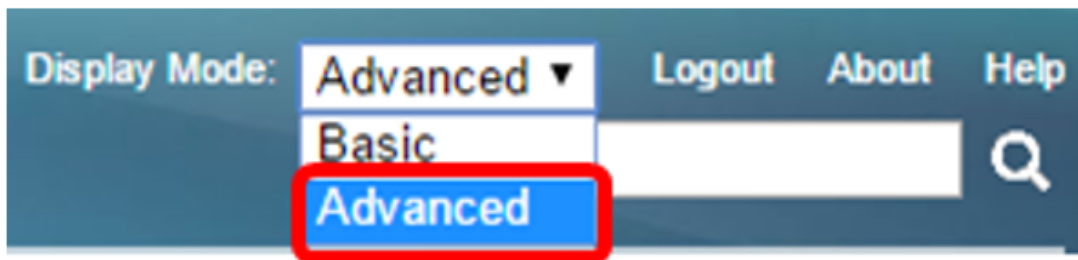
## Software Version

- 2.3.5.63

## Configure UDLD Settings

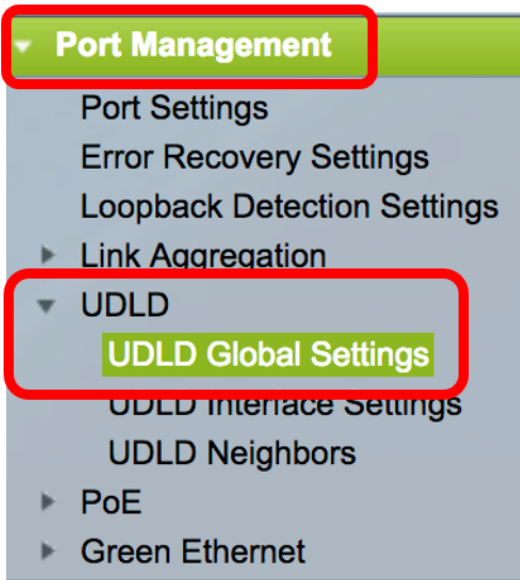
### Configure UDLD Global Settings

Step 1. Log in to the web-based utility and choose **Advanced** from the Display Mode drop-down list.

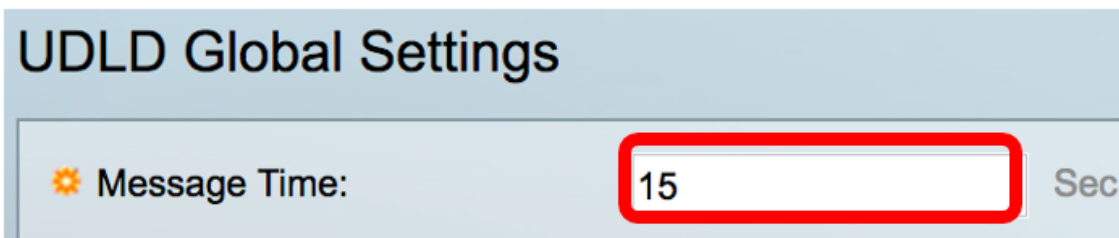


**Note:** The available menu options may vary depending on the device model. In this example, SG550XG-8F8T is used.

Step 2. Choose **Port Management > UDLD > UDLD Global Settings**.



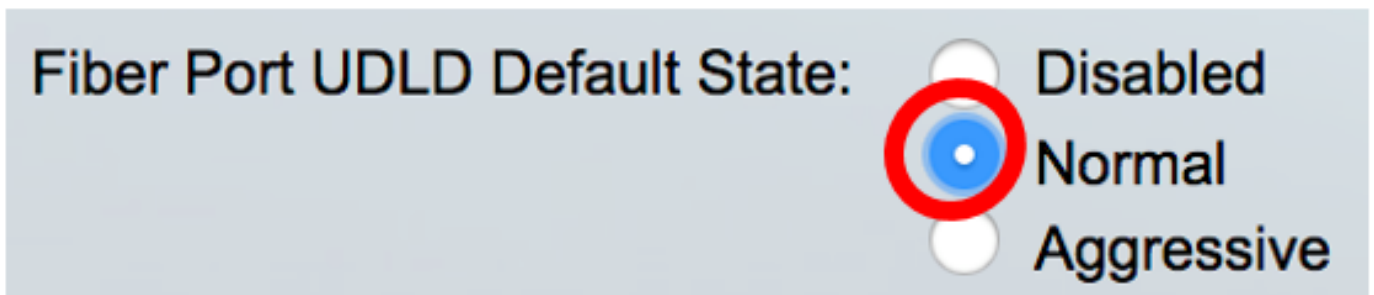
Step 3. In the *Message Time* field, enter the interval between sending UDLD messages. This field is relevant for both fiber and copper ports. The default value is 15 seconds.



Step 4. Choose one of the following options for the fiber port UDLD default state:

- Disabled — UDLD is disabled on all ports of the device. This option is chosen by default.
- Normal — The switch shuts down an interface if the link is unidirectional. If the link is undetermined, a notification is issued.
- Aggressive — The switch shuts down an interface if the link is unidirectional. If the link is bi-directional, the switch shuts down after the UDLD information times out. The port state is marked as undetermined.

**Note:** This area is only relevant for fiber ports. The UDLD state of copper ports must be configured individually in the UDLD Interface Settings page. For instructions, skip to the [Configure UDLD Interface Settings](#) section.



**Note:** In this example, Normal is chosen.

Step 5. Click **Apply** to save the configured settings.

## UDLD Global Settings

⚙️ Message Time:  Sec

**Fiber Port Settings**

Fiber Port UDLD Default State:
  Disabled
  Normal
  Aggressive

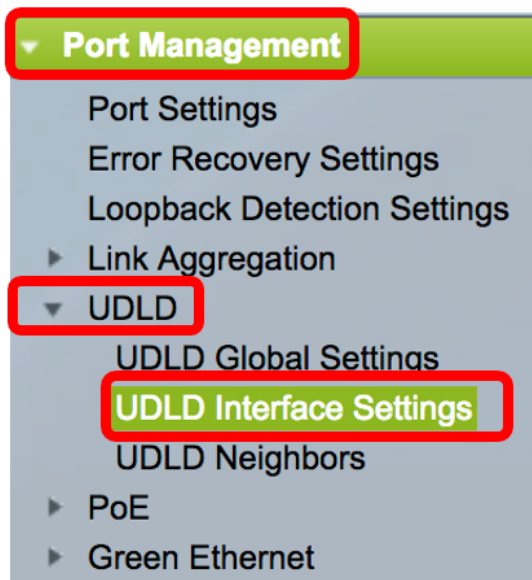
You should now have successfully configured the UDLD global settings on your switch.

### [Configure UDLD Interface Settings](#)

You can use the UDLD Interface Settings page of the web-based utility of the switch to change the UDLD state for a specific port. In this page, the state can be set for copper or fiber ports.

To configure UDLD for an interface, follow these steps:

Step 1. Choose **Port Management > UDLD > UDLD Interface Settings**.



In the UDLD Port Setting Table, the information is displayed for all ports on which UDLD is enabled or if you have filtered only a certain group of ports, the information is displayed for that group of ports. The table displays the following information:

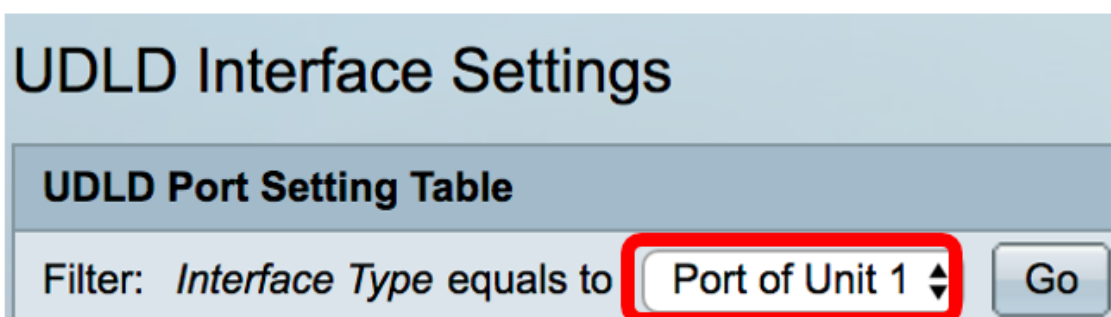
- Port — The port identifier.
- UDLD State — The possible states are:
  - Default — The port receives the value of the Fiber Port UDLD Default State in the UDLD Global

Settings page.

- Disabled — UDLD is disabled by default on all fiber ports of the device.
- Normal — The switch shuts down an interface if it detects that the link is unidirectional. It issues a notification if the link is undetermined.
- Aggressive — The switch shuts down an interface if the link is unidirectional. If the link is bi-directional, the device shuts down after the UDLD information times out. The port state is marked as undetermined.
  - Bidirectional State — The possible states are:
    - Detection — The latest UDLD state of the port is in the process of being determined. Expiration time has not yet expired since the last determination (if there was one), or since UDLD began running on the port, so that the state is not yet determined.
    - Bidirectional — The traffic sent by the local device is received by its neighbor, and traffic from the neighbor is received by the local device.
    - Undetermined — The state of the link between the port and its connected port cannot be determined either because no UDLD message was received or the UDLD message did not contain the local device ID in it.
    - Disabled (Default) — UDLD has been disabled on this port.
    - Shutdown — The port has been shut down because its link with the connected device is undetermined in aggressive mode.
    - Idle — The port is idle.
      - Number of Neighbors — The number of connected devices detected.

UDLD Port Setting Table					
Filter: <i>Interface Type</i> equals to <input type="text" value="Port of Unit 1"/> <input type="button" value="Go"/>					
	Entry No.	Port	UDLD State	Bidirectional State	Number of Neighbors
<input type="radio"/>	1	XG1	Disabled (Default)	Idle	0
<input type="radio"/>	2	XG2	Disabled (Default)	Idle	0
<input type="radio"/>	3	XG3	Disabled (Default)	Idle	0
<input type="radio"/>	4	XG4	Disabled (Default)	Idle	0
<input type="radio"/>	5	XG5	Disabled (Default)	Idle	0
<input type="radio"/>	6	XG6	Disabled (Default)	Idle	0
<input type="radio"/>	7	XG7	Disabled (Default)	Idle	0

Step 2. (Optional) To choose a filter, choose a unit and click **Go**. In this example, Port of Unit 1 is chosen.



**Note:** If the switch is part of a stack, you can display the interfaces of other units in the stack by

using this drop-down list.

Step 3. In the UDLD Port Setting Table, click the radio button of the interface you want to configure then click **Edit**.

	Entry No.	Port	UDLD State	Bidirectional State	Number of Neighbors
<input type="radio"/>	1	XG1	Disabled (Default)	Idle	0
<input checked="" type="radio"/>	2	XG2	Disabled (Default)	Idle	0
<input type="radio"/>	3	XG3	Disabled (Default)	Idle	0
<input type="radio"/>	4	XG4	Disabled (Default)	Idle	0
<input type="radio"/>	5	XG5	Disabled (Default)	Idle	0
<input type="radio"/>	6	XG6	Disabled (Default)	Idle	0
<input type="radio"/>	7	XG7	Disabled (Default)	Idle	0
<input type="radio"/>	8	XG8	Disabled (Default)	Idle	0
<input type="radio"/>	9	XG9	Disabled (Default)	Idle	0
<input type="radio"/>	10	XG10	Disabled (Default)	Idle	0
<input type="radio"/>	11	XG11	Disabled (Default)	Idle	0
<input type="radio"/>	12	XG12	Disabled (Default)	Idle	0
<input type="radio"/>	13	XG13	Disabled (Default)	Idle	0
<input type="radio"/>	14	XG14	Disabled (Default)	Idle	0
<input type="radio"/>	15	XG15	Disabled (Default)	Idle	0
<input type="radio"/>	16	XG16	Disabled (Default)	Idle	0

**Note:** In this example, port XG2 is chosen.

Step 4. The Interface area displays the chosen port in the UDLD Port Setting Table. You can use the Unit and Port drop-down lists to choose another unit and port to configure, respectively.

Interface:

**Note:** In this example, port XG2 of Unit 1 is retained.

Step 5. Click the UDLD state of the chosen interface from the UDLD State area. If you choose Default, the port receives the value of the Fiber Port UDLD Default State in the UDLD Global Settings page.

UDLD State:  Default  
 Disabled  
 Normal  
 Aggressive

**Note:** In this example, Normal is chosen.

Step 6. Click **Apply** then click **Close**.

Interface: Unit  Port

UDLD State:  Default  
 Disabled  
 Normal  
 Aggressive

Step 7. (Optional) Click **Save** to save the configured settings to the startup configuration file.

Save

cisco Language: English

# F8T 16-Port 10G Stackable Managed Switch

## UDLD Interface Settings

### UDLD Port Setting Table

Filter: *Interface Type* equals to

	Entry No.	Port	UDLD State	Bidirectional State	Number of Neighbors
<input type="radio"/>	1	XG1	Disabled (Default)	Idle	0
<input type="radio"/>	2	XG2	Normal	Undetermined	0
<input type="radio"/>	3	XG3	Disabled (Default)	Idle	0
<input type="radio"/>	4	XG4	Disabled (Default)	Idle	0
<input type="radio"/>	5	XG5	Disabled (Default)	Idle	0
<input type="radio"/>	6	XG6	Disabled (Default)	Idle	0
<input type="radio"/>	7	XG7	Disabled (Default)	Idle	0
<input type="radio"/>	8	XG8	Disabled (Default)	Idle	0
<input type="radio"/>	9	XG9	Disabled (Default)	Idle	0
<input type="radio"/>	10	XG10	Disabled (Default)	Idle	0
<input type="radio"/>	11	XG11	Disabled (Default)	Idle	0
<input type="radio"/>	12	XG12	Disabled (Default)	Idle	0
<input type="radio"/>	13	XG13	Disabled (Default)	Idle	0
<input type="radio"/>	14	XG14	Disabled (Default)	Idle	0
<input type="radio"/>	15	XG15	Disabled (Default)	Idle	0
<input type="radio"/>	16	XG16	Disabled (Default)	Idle	0

You should now have successfully configured the UDLD interface settings on your switch.