



# Ethernet Configuration Commands

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# interface

To enter Interface configuration mode in order to configure an interface, use the **interface** Global Configuration mode command.

## Syntax

```
interface interface-id
```

## Parameters

**interface-id**—Specifies an interface ID. The interface ID can be one of the following types: Ethernet port, port-channel, VLAN, range, Bluetooth, IP interface or tunnel.

## Command Mode

Global Configuration mode

**Example 1**—For Ethernet ports:

```
switchxxxxxx(config)# interface gi1/0/1  
switchxxxxxx(config-if)#
```

**Example 2**—For port channels (LAGs):

```
switchxxxxxx(config)# interface po1  
switchxxxxxx(config-if)#
```

# interface range

To execute a command on multiple ports at the same time, use the **interface range** command.

## Syntax

**interface range** *interface-id-list*

## Parameters

**interface-id-list**—Specify list of interface IDs. The interface ID can be one of the following types: Ethernet port, VLAN, or port-channel

## Command Mode

Interface (Ethernet, Port Channel, VLAN) Configuration mode

## User Guidelines

Commands under the interface range context are executed independently on each interface in the range. If the command returns an error on one of the interfaces, it does not stop the execution of the command on other interfaces.

## Example

```
switchxxxxxx(config)# interface range gi1/0/1-4  
switchxxxxxx(config-if-range)#
```

# shutdown

To disable an interface, use the **shutdown** Interface Configuration mode command. To restart a disabled interface, use the **no** form of this command.

## Syntax

**shutdown**

**no shutdown**

## Parameters

This command has no arguments or keywords.

## Default Configuration

The interface is enabled.

## Command Mode

Interface Configuration mode

## User Guidelines

The shutdown command set a value of ifAdminStatus (see RFC 2863) to DOWN. When ifAdminStatus is changed to DOWN, ifOperStatus will be also changed to DOWN.

The DOWN state of ifOperStatus means that the interface does not transmit/receive messages from/to higher levels. For example, if you shut down a VLAN, on which an IP interface is configured, bridging into the VLAN continues, but the switch cannot transmit and receive IP traffic on the VLAN.

Notes:

- If the switch shuts down an Ethernet port it additionally shuts down the port MAC sublayer too.
- If the switch shuts down a port channel it additionally shuts down all ports of the port channel too.

**Example 1**—The following example disables gi1/0/4 operations.

```
switchxxxxxx(config)# interface gi1/0/4
switchxxxxxx(config-if)# shutdown
switchxxxxxx(config-if)#
```

**Example 2**—The following example restarts the disabled Ethernet port.

```
switchxxxxxx(config)# interface gi1/0/4
switchxxxxxx(config-if)# no shutdown
switchxxxxxx(config-if)#
```

**Example 3**—The following example shuts down vlan 100.

```
switchxxxxxx(config)# interface vlan 100
switchxxxxxx(config-if)# shutdown
switchxxxxxx(config-if)#
```

**Example 4**—The following example shuts down tunnel 1.

```
switchxxxxxx(config)# interface tunnel 1  
switchxxxxxx(config-if)# shutdown  
switchxxxxxx(config-if)#
```

**Example 5**—The following example shuts down Port Channel 3.

```
switchxxxxxx(config)# interface po3  
switchxxxxxx(config-if)# shutdown  
switchxxxxxx(config-if)#
```

# operation time

To control the time that the port is up, use the **operation time** Interface (Ethernet, Port Channel) Configuration mode command. To cancel the time range for the port operation time, use the **no** form of this command.

## Syntax

**operation time** *time-range-name*

**no operation time**

## Parameters

- **time-range-name**—Specifies a time range the port operates (in up state). When the Time Range is not in effect, the port is shutdown. (Range: 1–32 characters)

## Default Configuration

There is no time range configured on the port authorized state.

## Command Mode

Interface (Ethernet, Port Channel) Configuration mode

## User Guidelines

It is recommended to disable spanning tree or to enable spanning-tree PortFast mode on 802.1x edge ports (ports in **auto** state that are connected to end stations), in order to proceed to the forwarding state immediately after successful authentication.

## Example

The operation time command influences the port if the port status is up. This command defines the time frame during which the port stays up and at which time the port will be shutdown. While the port is in shutdown because of other reasons, this command has no effect.

The following example activates an operation time range (named "morning") on port gi1/0/1.

```
switchxxxxxx(config)# interface gi1/0/1
switchxxxxxx(config-if)# operation time morning
```

# description

To add a description to an interface, use the **description** Interface Configuration mode command. To remove the description, use the **no** form of this command.

## Syntax

**description** *string*

**no description**

## Parameters

**string**—Specifies a comment or a description of the port to assist the user. (Length: 1–64 characters).

## Default Configuration

The interface does not have a description.

## Command Mode

Interface (Ethernet, Port Channel, Bluetooth) Configuration mode

## Example

The following example adds the description 'SW#3' to gi1/0/4.

```
switchxxxxxx(config)# interface gi1/0/4  
switchxxxxxx(config-if)# description SW#3
```

# speed

To configure the speed of a given Ethernet interface when not using auto-negotiation, use the **speed** Interface (Ethernet, Port Channel) Configuration mode command. To restore the default configuration, use the **no** form of this command.

## Syntax

```
speed {100 / 1000 / 2500 / 5000 / 10000}
```

```
no speed
```

## Parameters

- **100**—Forces 100 Mbps operation
- **1000**—Forces 1000 Mbps operation
- **2500**—Forces 2500 Mbps operation
- **5000**—Forces 5000 Mbps operation
- **10000**—Forces 10000 Mbps operation

## Default Configuration

The port operates at its maximum speed capability.

## Command Mode

Interface (Ethernet, Port Channel) Configuration mode

## User Guidelines

The **no speed** command in a port-channel context returns each port in the port-channel to its maximum capability.

## Example

The following example configures the speed of gi1/0/4 to 100 Mbps operation.

```
switchxxxxxx(config)# interface gi1/0/4
switchxxxxxx(config-if)# speed 100
```



# duplex

To configure the full/half duplex operation of a given Ethernet interface when not using auto-negotiation, use the **duplex** Interface (Ethernet, Port Channel) Configuration mode command. To restore the default configuration, use the **no** form of this command.

## Syntax

**duplex** *{half / full}*

**no duplex**

## Parameters

- **half**—Forces half-duplex operation.
- **full**—Forces full-duplex operation.

## Default Configuration

The interface operates in full duplex mode.

## Command Mode

Interface (Ethernet) Configuration mode

## Example

The following example configures `gi1/0/1` to operate in full duplex mode.

```
switchxxxxxx(config)# interface gi1/0/1  
switchxxxxxx(config-if)# duplex full
```

# negotiation

To enable auto-negotiation operation for the speed and duplex parameters and master-slave mode of a given interface, use the **negotiation** Interface (Ethernet, Port Channel) Configuration mode command. To disable auto-negotiation, use the **no** form of this command.

## Syntax

**negotiation** [*capability* [*capability2*... *capability5*]] [*preferred* {*master* | *slave*}]

**no negotiation**

## Parameters

- **Capability**—(Optional) Specifies the capabilities to advertise. (Possible values: 10h, 10f, 100h, 100f, 1000f, 2500f, 5000f, 10000f).
  - 10h**—Advertise 10 half-duplex
  - 10f**—Advertise 10 full-duplex
  - 100h**—Advertise 100 half-duplex
  - 100f**—Advertise 100 full-duplex
  - 1000f**—Advertise 1000 full-duplex
  - 2500f**—Advertise 2500 full-duplex
    - **5000f**—Advertise 5000 full-duplex
    - **10000f**—Advertise 10000 full-duplex
- **Preferred**—(Optional) Specifies the master-slave preference:
  - Master**—Advertise master preference
  - Slave**—Advertise slave preference

## Default Configuration

If capability is unspecified, defaults to list of all the capabilities of the port and preferred slave mode.

## Command Mode

Interface (Ethernet, Port Channel) Configuration mode

## Example

The following example enables auto-negotiation on gi1/0/1.

```
switchxxxxxx(config)# interface gi1/0/1
switchxxxxxx(config-if)# negotiation
```

# flowcontrol

To configure the Flow Control on a given interface, use the **flowcontrol** Interface (Ethernet, Port Channel) Configuration mode command. To disable Flow Control, use the **no** form of this command.

## Syntax

**flowcontrol** {**on** / **off**}

**no flowcontrol**

## Parameters

- **on**—Enables Flow Control.
- **off**—Disables Flow Control.

## Default Configuration

Flow control is set to Disabled.

## Command Mode

Interface (Ethernet, Port Channel) Configuration mode

## Example

The following example enables Flow Control on port gi1/0/1

```
switchxxxxxx(config)# interface gi1/0/1  
switchxxxxxx(config-if)# flowcontrol on
```

# mdix

To enable cable crossover on a given interface, use the **mdix** Interface (Ethernet) Configuration mode command. To disable cable crossover, use the **no** form of this command.

## Syntax

**mdix** *{on / auto}*

**no mdix**

## Parameters

- **on**—Enables manual MDIX.
- **auto**—Enables automatic MDI/MDIX.

## Default Configuration

The default setting is Auto.

## Command Mode

Interface (Ethernet) Configuration mode

## Example

The following example enables automatic crossover on port gi1/0/1.

```
switchxxxxxx(config)# interface gi1/0/1  
switchxxxxxx(config-if)# mdix auto
```

# back-pressure

To enable back pressure on a specific interface, use the **back-pressure** Interface (Ethernet) Configuration mode command. To disable back pressure, use the **no** form of this command.

## Syntax

**back-pressure**

**no back-pressure**

## Parameters

This command has no arguments or keywords.

## Default Configuration

Back pressure is disabled.

## Command Mode

Interface (Ethernet) Configuration mode

## User Guidelines

Back-pressure cannot be enabled when EEE is enabled.

## Example

The following example enables back pressure on port gi1/0/1.

```
switchxxxxxx(config)# interface gi1/0/1  
switchxxxxxx(config-if)# back-pressure
```

# port jumbo-frame

To enable jumbo frames on the device, use the **port jumbo-frame** Global Configuration mode command. To disable jumbo frames, use the **no** form of this command.

## Syntax

**port jumbo-frame**

**no port jumbo-frame**

## Parameters

This command has no arguments or keywords.

## Default Configuration

Jumbo frames are disabled on the device.

## Command Mode

Global Configuration mode

## User Guidelines

This command takes effect only after resetting the device.

## Example

The following example enables jumbo frames on the device.

```
switchxxxxxx(config)# port jumbo-frame
```

# link-flap prevention

To enable setting a physical interface to err-disable state due to excessive link flapping, use the **link-flap prevention** Global Configuration mode command. Use the **no** form of this command to restore the default configuration.

## Syntax

```
link-flap prevention {enable | disable}
```

```
no link-flap prevention
```

## Parameters

**enable**—Enables Link-flap Prevention.

**disable**—Disables Link-flap Prevention.

## Default Configuration

Link-flap prevention is enabled on the device.

## Command Mode

Global Configuration mode

## User Guidelines

This command will shutdown Ethernet (Physical) interfaces if the interface experienced, for a duration of 10 seconds, 3 link flaps (link status changes) within each second.

## Example

The following example enables link-flap prevention on the device.

```
switchxxxxxx(config)# link-flap prevention
```

# clear counters

To clear counters on all or on a specific interface, use the **clear counters** Privileged EXEC mode command.

## Syntax

```
clear counters [interface-id]
```

## Parameters

**interface-id**—(Optional) Specifies an interface ID. The interface ID can be one of the following types: Ethernet port or port-channel.

## Default Configuration

All counters are cleared.

## Command Mode

Privileged EXEC mode

## Example

The following example clears the statistics counters for gi1/0/1.

```
switchxxxxxx# clear counters gi1/0/1
```



# set interface active

To reactivate an interface that was shut down, use the **set interface active** Privileged EXEC mode command.

## Syntax

**set interface active** *interface-id*

## Parameters

**interface-id**— Specifies an interface ID. The interface ID can be one of the following types: Ethernet port or port-channel.

## Command Mode

Privileged EXEC mode

## User Guidelines

This command is used to activate interfaces that were configured to be active, but were shut down by the system.

## Example

The following example reactivates gi1/0/1.

```
switchxxxxxx# set interface active gi1/0/1
```

## errdisable recovery cause

To enable automatic re-activation of an interface after an Err-Disable shutdown, use the **errdisable recovery cause** Global Configuration mode command. To disable automatic re-activation, use the **no** form of this command.

### Syntax

```
errdisable recovery cause {all | port-security | dot1x-src-address | acl-deny | stp-bpdu-guard |
stp-loopback-guard | loopback-detection | udd | storm-control | link-flap }
```

```
no errdisable recovery cause {all | port-security | dot1x-src-address | acl-deny | stp-bpdu-guard |
stp-loopback-guard | loopback-detection | udd | storm-control | link-flap }
```

### Parameters

- **all**—Enables the error recovery mechanism for all reasons described below.
- **port-security**—Enables the error recovery mechanism for the port security Err-Disable state.
- **dot1x-src-address**—Enables the error recovery mechanism for the 802.1x Err-Disable state.
- **acl-deny**—Enables the error recovery mechanism for the ACL Deny Err-Disable state.
- **stp-bpdu-guard**—Enables the error recovery mechanism for the STP BPDU Guard Err-Disable state.
- **stp-loopback-guard**—Enables the error recovery mechanism for the STP Loopback Guard Err-Disable state.
- **loopback-detection**—Enables the error recovery mechanism for the Loopback Detection Err-Disable state.
- **udd**—Enables the error recovery mechanism for the UDLD Shutdown state.
- **storm-control**—Enables the error recovery mechanism for the Storm Control Shutdown state.
- **link-flap**—Enables the error recovery mechanism for the link-flap prevention Err-Disable state.

### Default Configuration

Automatic re-activation is disabled, except for link-flap reason where automatic re-creation is enabled by default.

### Command Mode

Global Configuration mode

### Example

The following example enables automatic re-activation of an interface after all states.

```
switchxxxxxx(config)# errdisable recovery cause all
```

# errdisable recovery interval

To set the error recovery timeout interval use the **errdisable recovery interval** Global Configuration mode command. To return to the default configuration, use the **no** form of this command.

## Syntax

**errdisable recovery interval** *seconds*

**no errdisable recovery interval**

## Parameters

**seconds**—Specifies the error recovery timeout interval in seconds. (Range: 30–86400)

## Default Configuration

The default error recovery timeout interval is 300 seconds.

## Command Mode

Global Configuration mode

## Example

The following example sets the error recovery timeout interval to 10 minutes.

```
switchxxxxxx(config)# errdisable recovery interval 600
```

## errdisable recovery reset

To reactivate one or more interfaces that were shut down by a given application, use the **errdisable recovery reset** Privileged EXEC mode command. A single interface, multiple interfaces or all interfaces can be specified.

### Syntax

```
errdisable recovery reset {all | port-security | dot1x-src-address | acl-deny | stp-bpdu-guard |
stp-loopback-guard | loopback-detection | udld | storm-control | link-flap | interface interface-id}
```

### Parameters

- **all**—Reactivate all interfaces regardless of their state.
- **port-security**—Reactivate all interfaces in the Port Security Err-Disable state.
- **dot1x-src-address**—Reactivate all interfaces in the 802.1x Err-Disable state.
- **acl-deny**—Reactivate all interfaces in the ACL Deny Err-Disable state.
- **stp-bpdu-guard**—Reactivate all interfaces in the STP BPDU Guard Err-Disable state.
- **stp-loopback-guard**—Reactivate all interfaces in the STP Loopback Guard Err-Disable state.
- **loopback-detection**—Reactivate all interfaces in the Loopback Detection Err-Disable state.
- **udld**—Reactivate all interfaces in the UDLD Shutdown state.
- **storm-control**—Reactivate all interfaces in the Storm Control Shutdown state.
- **link-flap**—Reactivate all interfaces in the link-flap prevention Err-Disable state.
- **interface *interface-id***—Reactivate interfaces that were configured to be active, but were shut down by the system.

### Command Mode

Privileged EXEC mode

**Example 1**—The following example reactivates interface gi1/0/1:

```
switchxxxxxx# errdisable recovery reset interface gi1/0/1
```

**Example 2**—The following example reactivates all interfaces regardless their state:

```
switchxxxxxx# errdisable recovery reset all
```

**Example 3**—The following example enables all interfaces in the port security Err-Disable state

```
switchxxxxxx# errdisable recovery reset port-security
```

# show interfaces configuration

To display the configuration for all configured interfaces or for a specific interface, use the **show interfaces configuration** Privileged EXEC mode command.

## Syntax

**show interfaces configuration** [*interface-id* | **detailed**]

## Parameters

- **interface-id**—(Optional) Specifies an interface ID. The interface ID can be one of the following types: Ethernet port or port-channel.
- **detailed**—(Optional) Displays information for non-present ports in addition to present ports.

## Default Configuration

Display all interfaces. If detailed is not used, only present ports are displayed.

## Command Mode

Privileged EXEC mode

## Example

The following example displays the configuration of all configured interfaces:

```
switchxxxxxx# show interfaces configuration
```

Port	Type	Duplex	Speed	Neg	Flow control	Admin State	Back Pressure	Mdix Mode
gil/0/1	1G-Copper	Full	1000	Enabled	Off	Up	Disabled	Off
gil/0/2	1G-Copper	Full	1000	Disabled	Off	Up	Disabled	Off
gil/0/2	10G-Copper	Full	10000	Disabled	Off	Up	Disabled	Off
gil/0/3	10G-Copper	Full	2500	Disabled	Off	Up	Disabled	Off
gil/0/4	10G-Copper	Full	5000	Disabled	Off	Up	Disabled	Off

  

PO	Type	Speed	Neg	Flow Control	Admin State
Pol			Disabled	Off	Up

# show interfaces status

To display the status of all interfaces or of a specific interface, use the **show interfaces status** Privileged EXEC mode command.

## Syntax

**show interfaces status** [*interface-id* | **detailed**]

## Parameters

- **interface-id**—(Optional) Specifies an interface ID. The interface ID can be one of the following types: Ethernet port or port-channel.
- **detailed**—(Optional) Displays information for non-present ports in addition to present ports.

## Command Mode

Privileged EXEC mode

## Default Configuration

Display for all interfaces. If detailed is not used, only present ports are displayed.

## Example

The following example displays the status of all configured interfaces.

```
switchxxxxx# show interfaces status
Port      Type      Duplex  Speed Neg      Flow  Link  Back  Mdix
-----  -
gil1/0/1  1G-Copper Full    1000  Disabled Off    Up    Disabled Off
gil1/0/2  1G-Copper --      --    --      --    Down  --    --
tel1/0/1  10G-Copper --      2500  --      --    Down  --    --
          Flow
          Link
PO      Type      Duplex Speed  Neg      control State
-----  -
Po1    1G        Full   10000 Disabled Off    Up
*: The interface was suspended by the system.
```

# show interfaces advertise

To display auto-negotiation advertisement information for all configured interfaces or for a specific interface, use the **show interfaces advertise** Privileged EXEC mode command.

## Syntax

**show interfaces advertise** [*interface-id* | **detailed**]

## Parameters

- **interface-id**—(Optional) Specifies an interface ID. The interface ID can be one of the following types: Ethernet port or port-channel.
- **detailed**—(Optional) Displays information for non-present ports in addition to present ports.

## Default Configuration

Display for all interfaces. If detailed is not used, only present ports are displayed.

## Command Mode

Privileged EXEC mode

## Examples

The following examples display auto-negotiation information.

```
switchxxxxxx# show interfaces advertise
```

Port	Type	Neg	Prefered	Operational Link Advertisement
gi1/0/1	1G-Copper	Enable	Master	1000f, 100f, 10f, 10h
gi1/0/2	1G-Copper	Enable	Slave	1000f
tw1/0/3	2.5G-Copper	Enable	Slave	2500f, 1000f, 100f, 100h
te1/0/1	10G-Copper	Enable	Slave	10000f, 5000f, 2500f, 1000f

```
switchxxxxxx# show interfaces advertise gi1/0/1
Port:gi1/0/1
Type: 1G-Copper
Link state: Up
Auto Negotiation: enabled
Preference: Master
```

Admin Local link Advertisement		10h	10f	100h	100f	1G	2.5G
Oper Local link Advertisement		---	---	----	----	-----	-----
Remote Local link Advertisement		yes	yes	yes	yes	yes	no
Priority Resolution		yes	yes	yes	yes	yes	no
		no	no	yes	yes	yes	no
		-	-	-	-	yes	-

```
switchxxxxxx# show interfaces advertise gil/0/1
Port: gil/0/1
Type: 1G-Copper
Link state: Up
Auto negotiation: disabled.
```



# show interfaces description

To display the description for all configured interfaces or for a specific interface, use the **show interfaces description** Privileged EXEC mode command.

## Syntax

**show interfaces description** [*interface-id* | **detailed**]

## Parameters

- **interface-id**—(Optional) Specifies an interface ID. The interface ID can be one of the following types: Ethernet port or port-channel.
- **detailed**—(Optional) Displays information for non-present ports in addition to present ports.

## Default Configuration

Display description for all interfaces. If detailed is not used, only present ports are displayed.

## Command Mode

Privileged EXEC mode

## Example

The following example displays the description of all configured interfaces.

switchxxxxxx# show interfaces description	
Port	Descriptions
-----	-----
gi1/0/1	Port that should be used for management only
gi1/0/2	
gi1/0/3	
gi1/0/4	
PO	Description
----	-----
Po1	Output

# show interfaces counters

To display traffic seen by all the physical interfaces or by a specific interface, use the **show interfaces counters** Privileged EXEC mode command.

## Syntax

**show interfaces counters** [*interface-id* | **detailed**]

## Parameters

- **interface-id**—(Optional) Specifies an interface ID. The interface ID can be one of the following types: Ethernet port or port-channel.
- **detailed**—(Optional) Displays information for non-present ports in addition to present ports.

## Default Configuration

Display counters for all interfaces. If detailed is not used, only present ports are displayed.

## Command Mode

Privileged EXEC mode

## Example

The following example displays traffic seen by all the physical interfaces.

```
switchxxxxx# show interfaces counters gil/0/1
Port          InUcastPkts  InMcastPkts  InBcastPkts  InOctets
-----
gil/0/1        0             0             0             0
Port          OutUcastPkts OutMcastPkts OutBcastPkts OutOctets
-----
gil/0/1        0             1             35            7051
FCS Errors: 0
Single Collision Frames: 0
Multiple Collision Frames: 0
SQE Test Errors: 0
Deferred Transmissions: 0
Late Collisions: 0
Excessive Collisions: 0
Carrier Sense Errors: 0
Oversize Packets: 0
Internal MAC Rx Errors: 0
Symbol Errors: 0
Received Pause Frames: 0
Transmitted Pause Frames: 0
```

The following table describes the fields shown in the display.

Field	Description
<b>InOctets</b>	Number of received octets.
<b>InUcastPkts</b>	Number of received Unicast packets.

Field	Description
<b>InMcastPkts</b>	Number of received Unicast packets.
<b>InBcastPkts</b>	Number of received broadcast packets.
<b>OutOctets</b>	Number of transmitted octets.
<b>OutUcastPkts</b>	Number of transmitted Unicast packets.
<b>OutMcastPkts</b>	Number of transmitted Unicast packets.
<b>OutBcastPkts</b>	Number of transmitted Broadcast packets.
<b>FCS Errors</b>	Number of frames received that are an integral number of octets in length but do not pass the FCS check.
<b>Single Collision Frames</b>	Number of frames that are involved in a single collision, and are subsequently transmitted successfully.
<b>Multiple Collision Frames</b>	Number of frames that are involved in more than one collision and are subsequently transmitted successfully.
<b>SQE Test Errors</b>	Number of times that the SQE TEST ERROR is received. The SQE TEST ERROR is set in accordance with the rules for verification of the SQE detection mechanism in the PLS Carrier Sense Function as described in IEEE Std. 802.3, 2000 Edition, section 7.2.4.6.
<b>Deferred Transmissions</b>	Number of frames for which the first transmission attempt is delayed because the medium is busy.
<b>Late Collisions</b>	Number of times that a collision is detected later than one slotTime into the transmission of a packet.
<b>Excessive Collisions</b>	Number of frames for which transmission fails due to excessive collisions.
<b>Oversize Packets</b>	Number of frames received that exceed the maximum permitted frame size.
<b>Internal MAC Rx Errors</b>	Number of frames for which reception fails due to an internal MAC sublayer receive error.
<b>Received Pause Frames</b>	Number of MAC Control frames received with an opcode indicating the PAUSE operation.
<b>Transmitted Pause Frames</b>	Number of MAC Control frames transmitted on this interface with an opcode indicating the PAUSE operation.

# show ports jumbo-frame

To display whether jumbo frames are enabled on the device, use the **show ports jumbo-frame** Privileged EXEC mode command.

## Syntax

```
show ports jumbo-frame
```

## Parameters

This command has no arguments or keywords.

## Command Mode

Privileged EXEC mode

## Example

The following example displays whether jumbo frames are enabled on the device.

```
switchxxxxxx# show ports jumbo-frame  
Jumbo frames are disabled  
Jumbo frames will be enabled after reset
```

# show link-flap prevention

To display whether link-flap prevention is enabled on the device, use the **show link-flap prevention** Privileged EXEC mode command.

## Syntax

```
show link-flap prevention
```

## Parameters

This command has no arguments or keywords.

## Command Mode

Privileged EXEC mode

## Example

The following example displays whether link-flap prevention is enabled on the device.

```
switchxxxxxx# show link-flap prevention  
link-flap prevention is currently enabled on device
```

# show errdisable recovery

To display the Err-Disable configuration of the device, use the **show errdisable recovery** Privileged EXEC mode command.

## Syntax

```
show errdisable recovery
```

## Parameters

This command has no arguments or keywords.

## Command Mode

Privileged EXEC mode

## Example

The following example displays the Err-Disable configuration.

```
switchxxxxx# show errdisable recovery
Timer interval: 300 Seconds
Reason                Automatic Recovery
-----
port-security         Disable
dot1x-src-address     Disable
acl-deny              Enable
stp-bpdu-guard        Disable
stp-loopback-guard    Disable
loop-detection        Disable
udld                  Disable
storm control         Disable
link-flap             Disable
```

# show errdisable interfaces

To display the Err-Disable state of all interfaces or of a specific interface, use the **show errdisable interfaces** Privileged EXEC mode command.

## Syntax

**show errdisable interfaces** [*interface-id*]

## Parameters

- **interface**—(Optional) Port or port-channel number.

## Default Configuration

Display for all interfaces.

## Command Mode

Privileged EXEC mode

## Example

The following example displays the Err-Disable state of gi1/0/1.

```
switchxxxxxx# show errdisable interfaces
Interface          Reason          Time to recovery
(sec)
-----
gi1/0/1            port-security   250
gi1/0/5            acl-deny        NA
```

# clear switchport monitor

To clear monitored statistics on all or on a specific interface or interface list, use the **clear switchport monitor** Privileged EXEC mode command.

## Syntax

**clear switchport monitor** *[interface-id-list]*

## Parameters

**interface-id-list**—(Optional) Specifies a list of interface ID. The interface ID can be one of the following types: Ethernet port or port-channel.

## Default Configuration

All monitored statistics are cleared.

## Command Mode

Privileged EXEC mode

## Example

The following example clears the monitored statistics for gi1/0/1.

```
switchxxxxx# clear switchport monitor gi1/0/1
```



# show switchport monitor

To display the monitored statistics gathered by a specific interface, use the **show switchport monitor** Privileged EXEC mode command.

## Syntax

```
show switchport monitor interface-id {seconds | minutes | hours | days | weeks} [utilization / tx / rx / frames]
```

```
show switchport monitor interface-id {days / weeks}
```

```
show switchport monitor utilization [interface-id]
```

## Parameters

- **interface-id**—(Optional) Specifies an interface ID. The interface ID can be one of the following types: Ethernet port or port-channel.
- **seconds**—last 20 samples, sampled every 15 seconds.
- **minutes**—last 60 samples, sampled every 60 seconds (every round minute according to system time).
- **hours**—last 24 samples, sampled every 60 minutes (every round hour according to system time).
- **days**—last 7 samples, sampled every 24 hours (midnight to midnight according to system time).
- **weeks**—last 12 samples, sampled every 7 days (midnight saturday to midnight saturday according to system time).
- **utilization**—shows per time frame the utilization calculated.
- **rx**—shows received counters statistics.
- **tx**—shows sent counters statistics.
- **frames**—show received counters statistics collected per packet size.

## Default Configuration

Display monitored statistics for an interface or all interface in case of **show switchport monitor utilization** command.

## Command Mode

Privileged EXEC mode

## User Guidelines

The **show switchport monitor utilization** is used to show a utilization summary per interface of the last time frame in each time frame(i.e. last minute, last hour, last day and last week).

The **show switchport monitor interface-id** is used to show monitored statistics samples collected per time frame and per counter types.

**Example 1**—The following example displays monitored statistics utilization seen by interface gi1/0/1.

```
switchxxxxx# show switchport monitor utilization gi1/0/1
```

Interface ----- gi1/0/1	Minutes Rx/TX utilization ----- 95%	Hours Rx/TX utilization ----- 80%	Days Rx/TX utilization ----- 60%	Weeks Rx/TX utilization ----- 20%

**Example 2**—The following example displays monitored Tx statistics gathered in minutes time frame seen by interface gi1/0/1.

```
switchxxxxx# show switchport monitor gi1/0/1 minutes tx
```

Time ----- 04:22:00 (~) 04:23:00	Unicast frames Sent ----- 95% 80%	Broadcast frames Sent ----- 80% 70%	Multicast frames Sent ----- 60% 60%	Good Octet Sent ----- 20% 50%

(~) Not all samples are available.

The following table describes the fields shown in the display.

Field	Description
<b>Time</b>	Time stamp of the current sample in system real time clock.  For seconds, minutes and hours format is: hh:mm:ss.  For days and weeks format is: <day of week> dd/mm/yy.
<b>Good Octets Received</b>	Number of received octets.
<b>Good Unicast frames Received</b>	Number of received Unicast packets.
<b>Good Multicast frames Received</b>	Number of received Unicast packets.
<b>Good Broadcast frames Received</b>	Number of received broadcast packets.
<b>Good Octets Sent</b>	Number of transmitted octets.
<b>Good Unicast frames Sent</b>	Number of transmitted Unicast packets.
<b>Good Multicast frames Sent</b>	Nmber of transmitted Unicast packets.
<b>Good Broadcast frames Sent</b>	Number of transmitted Broadcast packets.
<b>Frames of 64 bytes</b>	Number of received packets size of 64 bytes.
<b>Frames of 65-127 bytes</b>	Number of received packets size of 65-127 bytes.
<b>Frames of 128-255 bytes</b>	Number of received packets size of 128-255 bytes.
<b>Frames of 256-511 bytes</b>	Number of received packets size of 256-511 bytes.

<b>Field</b>	<b>Description</b>
<b>Frames of 512-1023 bytes</b>	Number of received packets size of 512-1023 bytes.
<b>Frames of 1024-1518 bytes</b>	Number of received packets size of 1024-1518 bytes.
<b>Rx Error Frames Received</b>	Number of frames received that are an integral number of octets in length but do not pass the FCS check.
<b>Rx Utilization</b>	Utilization in percentage for Received frames on the interface.
<b>Tx Utilization</b>	Utilization in percentage for Sent frames on the interface.
<b>Rx/Tx Utilization</b>	An average of the Rx Utilization and the Tx Utilization in percentage on the interface.

show switchport monitor