1 Ethernet Interface Commands

Command	Function
bandwidth	Configure the bandwidth of an Ethernet interface.
carrier-delay	Configure the carrier delay of an Interface.
clear counters	Clear the interface counter.
clear link-state-change statistics	Clear the statistics about the link state change times of the interface.
define interface-range	Configure batch interface macro names.
description	Configure the interface description.
duplex	Configure the duplex mode of an interface.
errdisable recovery	Recover a port from the errdisable state.
ethernet-port counter sample-period	Configure the sampling period of Ethernet interface statistics.
ethernet-subport counter route-sample-period	Configure the sampling period of Ethernet sub-interface statistics.
fec mode	Configure the forward error correction (FEC) mode of an interface.
fiber antifake enable	Enable the optical module antifake detection function.
flowcontrol	Configure interface flow control.
flow-statistics include-interframe enable	Enable the function of including interframe gaps in interface packet rate statistics.
interface	Enter the interface configuration mode.
interface range	Batch configure interfaces.
load-interval	Configure the interval of load calculation for an interface.
logging	Configure interface information printing.
mtu	Configure the maximum transmission unit (MTU) of an interface.

mtu forwarding	Configure the forwarding plane MTU.
negotiation mode	Configure the interface auto negotiation mode.
physical-port dither protect	Configure port flapping protection.
port speed-mode	Configure the working rate mode of the 25 Gbps port.
protected-ports route-deny	Configure L3 routing blocking between protected ports.
show interfaces	View the details of an interface.
show interfaces counters	View the statistics of packets received and sent by an interface.
show interfaces counters rate physical-layer	View the packet receiving and sending rate information of an interface at the physical layer.
show interfaces link-state-change statistics	View the change time and count of the interface link state.
show interfaces mtu forwarding	View information about the forwarding plane MTU.
show interfaces status	View the status information of an interface.
show interfaces status err-disabled	View the errdisable status information of an interface.
show interfaces transceiver	View the optical module information of an interface.
show interfaces usage	View the bandwidth usage of an interface.
show mgmt virtual	View the information of the virtual management port.
show split summary	View the splitting/combining information of an interface.
shutdown	Shut down a specific interface.
snmp trap link-status	Enable the LinkTrap notification sending function for interface status change.
snmp-server if-index persist	Enable the interface index persistence function.
speed	Configure the rate of an interface.
split interface	Configure the interface splitting function.
statistics	Enable the interface traffic statistics collection and IP traffic statistics collection functions.
switchport	Configure the L2 mode for an interface.

switchport protected	Configure a port as protected port.
system mtu	Configure the MTU of the system.

1.1 bandwidth

Function

Run the **bandwidth** command to configure the bandwidth of an Ethernet interface.

Run the **no** form of this command to restore the default configuration.

No interface bandwidth is configured by default.

Syntax

bandwidth *kilobits*

no bandwidth

Parameter Description

kilobits: Interface bandwidth, in kilobits. The value range is from 1 to 2147483647.

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

The **bandwidth** command cannot actually affect the bandwidth of an interface. It allows the user to inform the system of the bandwidth of the interface. The bandwidth of the Ethernet interface is determined according to the rate of the actual port link by default. If necessary, the user can specify the bandwidth. **Bandwidth** is only a routing parameter and does not affect the real bandwidth of the interface of the physical link.

Examples

The following example `configures` the bandwidth parameter of the interface GigabitEthernet 0/1 to 64 Kbps.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface GigabitEthernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# bandwidth 64
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.2 carrier-delay

Function

Run the **carrier-delay** command to configure the carrier delay of an Interface.

Run the **no** form of this command to restore the default configuration.

The default carrier delay of an interface is 2s.

Syntax

carrier-delay { [**milliseconds**] *delay-interval* | **up** [**milliseconds**] *up-interval* **down** [**milliseconds**] *down-interval* }

no carrier-delay

Parameter Description

milliseconds: Millisecond-level delay, in milliseconds. The value range is from 0 to 60000, and the value must be an integral multiple of 100.

Delay-interval: Second-level carrier delay of the interface, in seconds. The value range is from 0 to 60.

up *up-interval*: Second-level delay after which the state of the data carrier detect (DCD) signal changes from **Down** to **Up**, in seconds. The value range is from 0 to 60.

down *down-interval*: Second-level delay after which the state of the DCD signal changes from **Up** to **Down**, in seconds. The value range is from 0 to 60.

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

The carrier delay refers to the delay after which the DCD signal changes from **Down** to **Up** or from **Up** to **Down**. If the DCD status changes during the delay, the system will ignore this change to avoid re-negotiation on the upper data link layer.

If the DCD carrier is interrupted for a long time, the carrier delay should be set longer to accelerate route summarization and convergence of the routing table. On the contrary, if the DCD carrier interruption time is shorter than the route summarization time, the carrier delay should be set to a greater value to avoid route flapping.

Examples

The following example sets the carrier delay of the interface to 5s.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface GigabitEthernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# carrier-delay 5
```

The following example sets the carrier delay of the interface to 100 milliseconds.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface GigabitEthernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# carrier-delay milliseconds 100
```

The following example sets the delay after which the state of the DCD changes from **Down** to **Up** to 100 milliseconds and that after which the state of the DCD changes from **Up** to **Down** to 200 milliseconds.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface GigabitEthernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# carrier-delay up milliseconds 100 down
milliseconds 200
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.3 clear counters

Function

Run the **clear counters** command to clear the interface counter.

Syntax

clear counters [*interface-type interface-number*]

Parameter Description

interface-type interface-number: Type and number of the interface.

Command Modes

Privileged EXEC mode

Default Level

14

Usage Guidelines

You can run the **show interfaces** command to view the statistics of the interface and run the **clear counters** command to clear the statistics of the interface in the privileged EXEC mode. If no interface is specified, all the interface counters will be cleared.

If you run the command to clear all the interface counters, it is possible that the statistics of the aggregate port (AP) are not cleared. In this case, run the **clear counters** command again, and a shorter statistics sampling period will increase the probability of such a problem.

Examples

The following example clears the counter of the interface GigabitEthernet 0/1.

```
Hostname> enable
Hostname# clear counters GigabitEthernet 0/1
```

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.4 clear link-state-change statistics

Function

Run the **clear link-state-change statistics** command to clear the statistics about the link state change times of the interface.

Syntax

clear link-state-change statistics *interface-type interface-number*

Parameter Description

interface-type interface-number: Type and number of the interface.

Command Modes

Privileged EXEC mode

Default Level

14

Usage Guidelines

You can view the link state change statistics of the interface using the **show interfaces link-state-change** command and clear the statistics about the link state change times of the interface using the **clear link-state-change statistics** command in the privileged EXEC mode. If no interface is specified, all the interface counters will be cleared.

Examples

The following example clears the link state change statistics of the interface GigabitEthernet 0/1.

```
Hostname> enable
Hostname# clear link-state-change statistics GigabitEthernet 0/1
```

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.5 define interface-range

Function

Run the **define interface-range** command to configure batch interface macro names.

Run the **no define interface-range** command to delete batch interface macro names.

No batch interface macro names are configured by default.

Syntax

define interface-range *macro-name interface-type interface-range-string*

no define interface-range *macro-name*

Parameter Description

interface-type:-type: Interface type.

interface-range-string: Range of interface number, for example, **0/1-5** or **0/1, 0/3-4**.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

N/A

Examples

The following example sets the macro name of the physical ports GigabitEthernet 0/1, GigabitEthernet 0/3, and GigabitEthernet 0/4 to **office201-port**.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# define interface-range office201-port GigabitEthernet 0/1,0/3-4
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.6 description

Function

Run the **description** command to configure the interface description.

Run the **no** form of this command to delete the configured interface description.

Syntax

description *interface-description*

no description

Parameter Description

interface-description: Interface description.

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

The **show interfaces** command is used to display the interface description and other information.

Examples

The following example configures the description of the interface GigabitEthernet 0/1 as **GBIC-1**.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface GigabitEthernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# description GBIC-1
```

Notifications

If the length of the interface description exceeds 80 characters, an error is displayed.

```
% The length of description is up to 80!
```

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.7 duplex

Function

Run the **duplex** command to configure the duplex mode of an interface.

Run the **no** form of this command to restore the default configuration.

The interface is in auto-negotiation mode.

Syntax

duplex { **auto** | **full** | **half** }

no duplex

Parameter Description

Auto: Auto negotiation.

full: Full duplex.

Half: Half duplex.

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

The duplex mode of an interface is related to the interface type. You can run the **show interfaces** command to view the duplex configuration of the interface.

Examples

The following example configures the full duplex mode for the interface GigabitEthernet 0/1.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface GigabitEthernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# duplex full
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.8 errdisable recovery

Function

Run the **errdisable recovery** command to recover a port from the errdisable state.

The port errdisable recovery function is disabled by default.

Syntax

errdisable recovery [**interval** *interval* | **cause** *link-state*]

Parameter Description

interval *interval*: Interval of automatic recovery, in seconds. If the parameter is not configured, it indicates manual recovery. Automatic recovery is unavailable. The value range is from 30 to 86400.

cause *link-state*: Recovers the interface that is set to the errdisable state by the Rapid Ethernet Uplink Protection Protocol (REUP) link tracking group function.

Command Modes

Global configuration mode

Privileged EXEC mode

Interface configuration mode

Default Level

14

Usage Guidelines

When a violation occurs, you can run the **show interfaces status err-disable** command to view the cause. After the network fault is eliminated, you can run this command to recover the interface.

The interval of automatic recovery cannot be configured in privileged EXEC mode.

Specific errdisable recovery cannot be configured in interface configuration mode.

Examples

The following example configures global port errdisable recovery.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# errdisable recovery
```

The following example recovers the port that is set to the errdisable state by the REUP link tracking group function.

```
Hostname> enable
Hostname # errdisable recovery cause link-state
```

The following example recovers the port GigabitEthernet 0/1 from the errdisable state and sets the interval of automatic recovery to 60s.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface GigabitEthernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# errdisable recovery interval 60
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.9 ethernet-port counter sample-period

Function

Run the **ethernet-port counter sample-period** command to configure the sampling period of Ethernet interface statistics.

The default sampling period of Ethernet interface statistics is 5s.

Syntax

ethernet-port counter sample-period [*interval*]

Parameter Description

Interval: Sampling interval of Ethernet interface statistics, in seconds. The value range is from 1 to 100.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

Note that a shorter sampling period indicates higher system resource consumption. After completing the configuration, check the CPU usage.

Examples

The following example configures the sampling period of Ethernet interface statistics to 1s.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# ethernet-port counter sample-period 1
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.10 ethernet-subport counter route-sample-period

Function

Run the **ethernet-subport counter route-sample-period** command to configure the sampling period of Ethernet sub-interface statistics.

Run the **no** form of this command to restore the default configuration.

The default sampling period of Ethernet sub-interface statistics is 5s.

Syntax

ethernet-subport counter route-sample-period [*interval*]

no ethernet-subport counter route-sample-period

Parameter Description

Interval: Sampling interval of Ethernet sub-interface statistics, in seconds. The value range is from 1 to 60.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

Note that a shorter sampling period indicates higher system resource consumption. After completing the configuration, check the CPU usage.

Examples

The following example configures the sampling period of Ethernet sub-interface statistics to 1s.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# ethernet-subport counter route-sample-period 1
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.11 fec mode

Function

Run the **fec mode** command to configure the forward error correction (FEC) mode of an interface.

Run the **no** form of this command to restore the default configuration.

By default, the FEC mode of an interface depends on the interface type, and a specific FEC mode is subject to the actual product.

Syntax

fec mode { **rs** | **base-r** | **none** | **auto** }

no fec mode

Parameter Description

rs: Enables the FEC function as Reed-Solomon (RS)-FEC.

base-r: Enables the FEC function as BASE-R FEC.

none: Disables the FEC function.

auto: Indicates that the FEC mode is adaptive, that is, whether the FEC function is enabled or disabled is determined by the inserted optical module and its rate.

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

When the FEC function is enabled at one end of the link, it must be also enabled at the other end.

On the premise of not affecting the negotiation status of the two ends, you are advised to:

- disable the FEC function on the QSFP28-100G-LR4 optical module, on which the FEC function is disabled by default;
- enable the FEC function on QSFP28 modules (except QSFP28-100G-LR4), on which the FEC function is enabled by default.

Examples

The following example enables the FEC function as RS-FEC for the interface GigabitEthernet 0/1.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface GigabitEthernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# fec mode rs
```

The following example enables the FEC function as BASE-R FEC for the interface GigabitEthernet 0/1.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface GigabitEthernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# fec mode base-r
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.12 fiber antifake enable

Function

Run the **fiber antifake enable** command to enable the optical module antifake detection function.

Run the **no** form of this command to disable the optical module antifake detection function.

The optical module antifake detection function is disabled by default.

Syntax

fiber antifake { **ignore** | **enable** }

no fiber antifake enable

Parameter Description

ignore: Disables the optical module antifake detection function.

enable: Enables the optical module antifake detection function.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

An optical module alarm is printed when the optical module antifake detection function is enabled, and the system detects insertion of an optical module not supplied by Orion Networks. The optical module antifake detection function can be configured only for specific batches of optical modules. A false alarm may be reported for Orion optical modules of earlier versions.

Examples

The following example enables the optical module antifake detection function for the device.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# fiber antifake enable
```

Notifications

The following notification is displayed when an optical module not supplied by Orion Networks is inserted into the interface GigabitEthernet 0/50:

```
*Aug 6 10:11:51: %OPTICAL_MODULE-WARNING: The Optical Module(Serial Number:
G1GD3B900102B) inserted into interface GigabitEthernet 0/50 is not original
Optical Module.
```

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.13 flowcontrol

Function

Run the **flowcontrol** command to configure interface flow control.

Run the **no** form of this command to restore the default configuration.

Flow control is disabled by default.

Syntax

flowcontrol { **auto** | **off** | **on** | **receive** { **auto** | **off** | **on** } | **send** { **auto** | **off** | **on** } }

no flowcontrol

Parameter Description

auto: Automatic flow control.

off: Disables flow control.

on: Enables flow control.

receive: Receiving direction of asymmetric flow control.

send: Sending direction of asymmetric flow control.

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

You can run the **show interfaces** command to check whether the configuration takes effect.

Examples

The following example enables the flow control function on the interface GigabitEthernet 0/1.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface GigabitEthernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# flowcontrol on
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.14 flow-statistics include-interframe enable

Function

Run the **flow-statistics include-interframe enable** command to enable the function of including interframe gaps in interface packet rate statistics.

Run the **no** form of this command to disable the function of including interframe gaps in interface packet rate statistics.

The function of including interframe gaps in interface packet rate statistics is disabled by default.

Syntax

flow-statistics include-interframe enable

no flow-statistics include-interframe enable

Parameter Description

N/A

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

All the interface rate statistics are cleared and recalculated after you run the command.

Examples

The following example enables the function of including interframe gaps in interface packet rate statistics.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# flow-statistics include-interframe enable
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.15 interface

Function

Run the **Interface** command to enter the interface configuration mode.

Syntax

interface *interface-type interface-number*

Parameter Description

interface-type interface-number: Type and number of the interface.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

You can run this command to enter the interface configuration mode. Then you can modify the interface configuration.

For a virtual interface, you do not need to enter the slot number when entering the interface number. Instead, you can directly enter the number of the virtual interface, for example, interface looback 0.

The support to parameters varies for the L2 and L3 interfaces. The actual support conditions of products prevail.

Examples

The following example enters the configuration mode of the physical port GigabitEthernet 0/1.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface GigabitEthernet 0/1
Hostname(config-if-GigabitEthernet 0/1)#
```

The following example enters the configuration mode of the logical interface VLAN 1.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface vlan 1
Hostname(config-if-VLAN 1)#
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.16 interface range

Function

Run the **Interface range** command to batch configure interfaces.

The function is not configured by default.

Syntax

Interface range { *interface-type interface-range-string* } | **macro** *macro-name* }

Parameter Description

interface-type: Type of the interface. The interface can be an Ethernet physical port or a loopback interface.

interface-range-string: Range of interface number, for example, **0/1-5** or **0/1, 0/3-4**.

macro *macro-name*: Defines a macro to indicate the interface range. Here, **macro-name** is the name of the macro.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

Before using a macro, you need to run the **define interface-range** command to define the interface range as *macro-name* in global configuration mode, and then run the **interface range macro** *macro-name* command to apply the macro.

Examples

The following example batch sets the interface description of GigabitEthernet 0/1, GigabitEthernet 0/2, and GigabitEthernet 0/4 to **Office-201**.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface range GigabitEthernet 0/1-2,0/4
Hostname(config-if-range)# description Office-201
```

The following example defines the interface macro name of GigabitEthernet 0/1 and GigabitEthernet 0/2 as **BW100**, and batch sets the bandwidth parameter to 100 Kbps.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# define interface-range BW100 GigabitEthernet 0/1-2
Hostname(config)# interface range macro BW100
Hostname(config-if-range)# bandwidth 100
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.17 load-interval

Function

Run the **load-interval** command to configure the interval of load calculation for an interface.

Run the **no** form of this command to restore the default configuration.

The default interval of load calculation for an interface is 10s.

Syntax

load-interval *interval*

no load-interval

Parameter Description

interval: Interval of load calculation for the interface, in seconds. The value range is from 5 to 600.

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

You can run this command to specify the time interval for calculating the load of packet input and output for an interface. Generally, the numbers of input/output packets and bits per second are calculated every 10 seconds. For example, if this parameter is changed to 180 seconds on the interface GigabitEthernet 0/1, the following is displayed after you run the **show interface gigabitEthernet 0/1** command:

```
3 minutes input rate 15 bits/sec, 0 packets/sec
3 minutes output rate 14 bits/sec, 0 packets/sec
```

Examples

The following example sets the interval of load calculation for the interface GigabitEthernet 0/1 to 180s.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface GigabitEthernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# load-interval 180
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.18 logging

Function

Run the **logging** command to configure interface information printing.

Run the **no** form of this command to delete the interface information printing configuration.
The interface information printing function is disabled by default.

Syntax

logging [**link-updown** | **error-frame** | **link-dither** | **res-lack-frame** | **crc-frame**]

no logging [**link-updown** | **error-frame** | **link-dither** | **res-lack-frame** | **crc-frame**]

Parameter Description

link-updown: Prints the information when the interface state changes.

error-frame: Prints the information when the interface receives error frames.

link-dither: Prints the information when the interface flaps.

res-lack-frame: Prints the information when the interface drops the received frames due to insufficient resources.

crc-frame: Prints the notification displayed when the interface receives cyclic redundancy check (CRC) error packets.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

You can decide whether to enable interface information printing. The function is enabled by default. Notifications displayed when the interface state changes, the interface receives an error frame or flaps, the interface drops the received frame due to insufficient resources, and the interface receives a CRC error packet will be printed. The notifications will not be printed after you run the **no logging** [**link-updown** | **error-frame** | **link-dither** | **res-lack-frame** | **crc-frame**] command.

Examples

The following example prints the interface state change information.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# logging link-updown
```

Notifications

When the interface state changes, the following notification will be displayed:

```
%LINK-UPDOWN: Interface GigabitEthernet 0/0, changed state to up.
%LINEPROTO-UPDOWN: Line protocol on Interface GigabitEthernet 0/0, changed state
to up.
```

When the interface receives error frames, the following notification will be displayed:

```
%PORT-ERR_FRAME: Received error frames on interface GigabitEthernet 0/0. Please
check the physical link.
```

When the interface flaps, the following notification will be displayed:

```
%LINK-DITHER: The state of Interface GigabitEthernet 0/1 is astable. Please check
the physical link.
%LINK-DITHER: The state of interface GigabitEthernet 0/1 is astable and the
interface will be shutdown.Please check the physical link
```

When the interface drops the received frames due to insufficient resources, the following notification will be displayed:

```
% PORT-DROP_FRAME: No more ingress buffer frames has been detected on interface
GigabitEthernet 0/1. (no buffer frames: 10)
```

When the interface receives CRC error packets, the following notification will be displayed:

```
%PORT-CRC_FRAME: Detected CRC alignment errors on interface TenGigabitEthernet
1/0/7. (crc frames: 15)
```

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.19 mtu

Function

Run the **mtu** command to configure the maximum transmission unit (MTU) of an interface.

By default, the MTU of an interface is 1500 bytes.

Syntax

mtu *mtu-value*

Parameter Description

mtu-value: MTU value, in bytes. The value range is related to the interface type, for example, the MTU value of a 1000 Mb port ranges from 64 to 9216.

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

This command is used to configure the MTU of an interface, that is, the maximum length of a data frame at the link layer.

When the interface is configured with the default MTU, it will also be displayed using the **show run** command. After being configured, the valid MTU of the interface does not change with the MTU configuration of the system.

The set MTU may affect the throughput and delay of the network. Moreover, the set MTU generally depends on the service application and bandwidth size. If multiple services are used in a mixed manner, one service, for example, voice transmission, may impose a high requirement on real-time performance and features a small data length, while another service, for example, FTP data transmission, has no requirement on real-time performance but features a large data length, which occupies more bandwidth resources. In this case, setting a smaller MTU is conducive to the average allocation of bandwidth among different service data.

This command will cause a problem to the RSR30 series products. The on-board Gigabit Ethernet interface of the RSR30 series products does not count the data not exceeding 1518 bytes as super long frames. Therefore, when the configured MTU value is less than 1518 bytes, the interface cannot count the Ethernet frame of the Ethernet packet with a length greater than that of MTU but less than 1518 bytes as a super long frame (the interface packet on the CLI command line is counted as giant type).

Examples

The following example sets the MTU of the interface GigabitEthernet 0/1 to 9000.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface GigabitEthernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# mtu 9000
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.20 mtu forwarding

Function

Run the **mtu forwarding** command to configure the forwarding plane MTU.

The default value of the forwarding plane MTU is 1500 bytes.

Syntax

mtu forwarding *number*

Parameter Description

number: Forwarding plane MTU, in bytes. The value range is from 64 to 9216.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

This command only takes effect on all the physical ports.

After the command is configured, the protocol plane MTU will be inconsistent with the forwarding plane MTU, which may cause problems such as flow interruption and protocol exception in some scenarios. For example, in the IPv6 scenario, if the global **mtu forwarding** configuration is smaller than the default MTU configured for the interface, the IPv6 packet cannot be sent and received normally, and the network will be interrupted. You are advised to use the **system mtu** command instead of this command unless there are special scenario requirements.

Examples

The following example sets the forwarding plane MTU to 9000.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# mtu forwarding 9000
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.21 negotiation mode

Function

Run the **negotiation mode** command to configure the interface auto negotiation mode.

Run the **no** form of this command to restore the default configuration.

The auto negotiation mode is disabled by default.

Syntax

negotiation mode { **on** | **off** }

no negotiation mode

Parameter Description

on: Enables the auto negotiation mode.

off: Disables the auto negotiation mode.

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

The auto negotiation state of an interface is not completely equivalent to the auto negotiation mode. The auto negotiation state of an interface is jointly determined by the interface rate, duplex mode, flow control mode, and auto negotiation mode.

Examples

The following example enables the auto negotiation mode for the interface GigabitEthernet 1/1.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface GigabitEthernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# negotiation mode on
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.22 physical-port dither protect

Function

Run the **physical-port dither protect** command to configure port flapping protection.

Run the **no** form of this command to disable port flapping protection.

The port flapping protection function is enabled by default.

Syntax

physical-port dither protect

no physical-port dither protect

Parameter Description

N/A

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

You can decide whether to enable the flapping protection function for the port link. The flapping protection function is enabled by default, that is, the **physical-port dither protect** command is configured. When the port flaps for more than the specified times, the port is shut down for port protection. After the **no physical-port dither protect** command is configured, only the notification is displayed, and the port will not be shut down.

The command detects flapping every 2s or 10s. If it is detected that the port flaps six times within 2s, the system displays a notification. The port is shut down after the notification is displayed for consecutive ten times (that is, port flapping is detected continuously within 20s). If flapping is detected every 10s and flapping occurs for more than consecutive ten times, a notification is displayed but the port is not shut down.

Examples

The following example disables the port flapping protection function.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# no physical-port dither protect
```

Notifications

When it is detected that the port flaps six times every 2s or flaps ten times within 10s, the following notification will be displayed:

```
%LINK-DITHER: The state of Interface GigabitEthernet 0/1 is astable. Please check
the physical link.
```

When the port flaps ten times within 20s and the last flapping occurs, the following notification will be displayed:

```
%LINK-DITHER: The state of interface GigabitEthernet 0/1 is astable and the
interface will be shutdown.Please check the physical link.
```

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.23 port speed-mode

Function

Run the **port speed-mode** command to configure the working rate mode of the 25 Gbps port.

The port works in 25 Gbps rate mode by default.

Syntax

port speed-mode { **25G** | **10G** }

Parameter Description

25G: Indicates that the 25 Gbps port works in the 25 Gbps rate mode.

10G: Indicates that the 25 Gbps port works in the 10 Gbps rate mode.

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

Only the 25 Gbps port supports this command. The four consecutive 25 Gbps ports in the same slot need to be configured to work in the same rate mode.

Only the 25 Gbps ports with the same rate mode are allowed to join the same aggregation group.

Running the **default interface** command does not clear the port speed-mode configuration on the 25 Gbps port.

Examples

The following example sets the rate mode of the interface TFGigabitEthernet 0/1 to 10 Gbps.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface TFGigabitEthernet 0/1
Hostname(config-if-TFGigabitEthernet 0/1)# port speed-mode 10G
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.24 protected-ports route-deny

Function

Run the **protected-ports route-deny** command to configure L3 routing blocking between protected ports.

The L3 routing blocking function between protected ports is disabled by default.

Syntax

protected-ports route-deny

Parameter Description

N/A

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

By default, the L3 routing between protected ports is not blocked. In this case, you can run the **protected-ports route-deny** command to block the routing between protected ports.

Examples

The following example configures L3 routing blocking between protected ports.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# protected-ports route-deny
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.25 show interfaces

Function

Run the **show interfaces** command to view the details of an interface.

Syntax

show interfaces [*interface-type interface-number*] [**description** [**up** | **down**] | **switchport** | **trunk**]

Parameter Description

interface-type interface-number: Type and number of the interface. If the interface type and number are not specified, the details of all interfaces are displayed.

description: Interface description, including the link status.

up: Displays the statistics of the interface in **Up** state.

down: Displays the statistics of the interface in **Down** state.

switchport: L2 interface information. This parameter is effective only for a L2 interface.

trunk: Trunk port information. This parameter is effective for a physical port or an AP.

Command Modes

All modes except the user EXEC mode

Default Level

14

Usage Guidelines

This command without any parameter can be used to display the basic interface information.

The support to parameters varies for the L2 and L3 interfaces. The actual support conditions of specific interfaces prevail.

Examples

The following example displays the interface information of GigabitEthernet 0/1 in trunk mode.

```
Hostname> enable
Hostname# show interfaces GigabitEthernet 0/1
Index(dec):1 (hex):1
GigabitEthernet 0/1 is DOWN, line protocol is DOWN
  Hardware is Broadcom 5464 GigabitEthernet, address is 00d0.f865.de9b (bia
00d0.f865.de9b)
  Interface address is: no ip address
  Interface IPv6 address is:
    No IPv6 address
  MTU 1500 bytes, BW 1000000 Kbit
  Encapsulation protocol is Ethernet-II, loopback not set
  Keepalive interval is 10 sec , set
  Carrier delay is 2 sec
  Ethernet attributes:
    Last link state change time: 2012-12-22 14:00:48
    Time duration since last link state change: 3 days, 2 hours, 50 minutes, 50
seconds
    Priority is 0
    Medium-type is Copper
```

```
    Admin duplex mode is AUTO, oper duplex is Unknown
    Admin speed is AUTO, oper speed is Unknown
    Flow receive control admin status is OFF,flow send control admin status is
OFF
    Flow receive control oper status is Unknown,flow send control oper status is
Unknown
    Storm Control: Broadcast is OFF, Multicast is OFF, Unicast is OFF
  Bridge attributes:
    Port-type: trunk
    Native vlan:1
    Allowed vlan lists:1-4094
    Active vlan lists:1, 3-4
  Queueing strategy: FIFO
    Output queue 0/0, 0 drops;
    Input queue 0/75, 0 drops
  Rxload is 1/255,Txload is 1/255
  5 minutes input rate 0 bits/sec, 0 packets/sec
  5 minutes output rate 0 bits/sec, 0 packets/sec
    0 packets input, 0 bytes, 0 no buffer, 0 dropped
    Received 0 broadcasts, 0 runts, 0 giants
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 abort
    0 packets output, 0 bytes, 0 underruns , 0 dropped
    0 output errors, 0 collisions, 0 interface resets
```

Table 1-1Output Fields of the show interface Command

Field	Description
Index	Indicates the interface index information, including the decimal and hexadecimal formats.
GigabitEthernet/line protocol	Indicates the interface link status/protocol status information.
Hardware	Indicates the interface hardware type.
address	Indicates the MAC address of the interface.
Interface address	Indicates the IP address of the interface.
ARP type	Indicates the ARP type.
ARP Timeout	Indicates the ARP timeout.
Interface IPv6 address	Indicates the IPv6 address of the interface.
MTU	Indicates the MTU of the interface.
BW	Indicates the interface bandwidth.
Encapsulation protocol	Indicates the interface encapsulation protocol.
loopback	Indicates whether loopback is set for the interface.

Field	Description
Keepalive interval	Indicates the keepalive packet sending interval of the interface.
Carrier delay	Indicates the carrier delay of the interface, in seconds.
Medium-type	Indicates the interface medium type.
Last link state change time	Indicates the time when the interface is up/down last time.
Time duration since last link state change	Indicates the duration of the interface status.
Priority	Indicates the interface priority.
Admin duplex mode/oper duplex	Indicates the duplex mode/operational duplex status of the interface.
Admin speed/oper speed	Indicates the rate mode/operational rate status of the interface.
Flow control admin/oper status	Indicates the flow control mode/operational flow control status of the interface.
Queuing strategy	Indicates the queuing strategy of the interface.
Output/Input/drops	Indicates the quantities of packets received/sent/dropped by the interface.
Rxload/Txload	Indicates the load rate of packets received/sent by the interface.
5 minutes input rate bit/sec packets/sec	Indicates the packet receiving rate of the interface, in bits/sec and packets/sec.
5 minutes output rate bit/sec packets/sec	Indicates the packet sending rate of the interface, in bits/sec and packets/sec.
packets input, bytes, no buffer	Indicates the statistics of the packets received by the interface and the error packets.
Received broadcasts, runts, giants	Indicates the statistics of the broadcast/multicast packets received by the interface, small packets dropped, and large packets dropped.
input errors, CRC, frame, overrun, abort	Indicates the statistics of packet receiving errors of the interface.
packets output, bytes, underruns	Indicates the statistics of packets sent by the interface, and processing failures due to fast transmission.
output errors, collisions, interface resets	Indicates the statistics of packet sending errors of the interface, retransmission times due to collisions, and interface resetting times.

The following example displays the interface information of GigabitEthernet 0/1 in access mode.

```
Hostname> enable
Hostname# show interfaces GigabitEthernet 0/1
Index(dec):1 (hex):1
GigabitEthernet 0/1 is DOWN, line protocol is DOWN
  Hardware is Broadcom 5464 GigabitEthernet, address is 00d0.f865.de9b (bia
00d0.f865.de9b)
  Interface address is: no ip address
  Interface IPv6 address is:
    No IPv6 address
  MTU 1500 bytes, BW 1000000 Kbit
  Encapsulation protocol is Ethernet-II, loopback not set
  Keepalive interval is 10 sec , set
  Carrier delay is 2 sec
  Ethernet attributes:
    Last link state change time: 2012-12-22 14:00:48
    Time duration since last link state change: 3 days, 2 hours, 50 minutes, 50
seconds
    Lastchange time:0 Day: 0 Hour: 0 Minute:13 Second
    Priority is 0
    Medium-type is Copper
    Admin duplex mode is AUTO, oper duplex is Unknown
    Admin speed is AUTO, oper speed is Unknown
    Flow receive control admin status is OFF,flow send control admin status is
OFF
    Flow receive control oper status is Unknown,flow send control oper status is
Unknown
    Storm Control: Broadcast is OFF, Multicast is OFF, Unicast is OFF
  Bridge attributes:
    Port-type: access
    Vlan id : 2
  Queueing strategy: FIFO
    Output queue 0/0, 0 drops;
    Input queue 0/75, 0 drops
  Rxload is 1/255, Txload is 1/255
  5 minutes input rate 0 bits/sec, 0 packets/sec
  5 minutes output rate 0 bits/sec, 0 packets/sec
    0 packets input, 0 bytes, 0 no buffer, 0 dropped
    Received 0 broadcasts, 0 runts, 0 giants
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 abort
    0 packets output, 0 bytes, 0 underruns , 0 dropped
    0 output errors, 0 collisions, 0 interface resets
```

The following example displays the interface information of GigabitEthernet 0/1 in hybrid mode.

```
Hostname> enable
Hostname# show interfaces GigabitEthernet 0/1
Index(dec):1 (hex):1
GigabitEthernet 0/1 is DOWN, line protocol is DOWN
```

```
  Hardware is Broadcom 5464 GigabitEthernet
  Interface address is: no ip address
  Interface IPv6 address is:
    No IPv6 address
  MTU 1500 bytes, BW 1000000 Kbit
  Encapsulation protocol is Ethernet-II, loopback not set
  Keepalive interval is 10 sec , set
  Carrier delay is 2 sec
  Ethernet attributes:
    Last link state change time: 2012-12-22 14:00:48
    Time duration since last link state change: 3 days, 2 hours, 50 minutes, 50
seconds
    Lastchange time:0 Day: 0 Hour: 0 Minute:13 Second
    Priority is 0
    Medium-type is Copper
    Admin duplex mode is AUTO, oper duplex is Unknown
    Admin speed is AUTO, oper speed is Unknown
    Flow receive control admin status is OFF,flow send control admin status is
OFF
    Flow receive control oper status is Unknown,flow send control oper status is
Unknown
    Storm Control: Broadcast is OFF, Multicast is OFF, Unicast is OFF
  Bridge attributes:
    Port-type: hybrid
    Tagged vlan id:2
    Untagged vlan id:none
  Queueing strategy: FIFO
    Output queue 0/0, 0 drops;
    Input queue 0/75, 0 drops
  Rxload is 1/255 ,Txload is 1/255
  5 minutes input rate 0 bits/sec, 0 packets/sec
  5 minutes output rate 0 bits/sec, 0 packets/sec
    0 packets input, 0 bytes, 0 no buffer, 0 dropped
    Received 0 broadcasts, 0 runts, 0 giants
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 abort
    0 packets output, 0 bytes, 0 underruns , 0 dropped
    0 output errors, 0 collisions, 0 interface resets
```

The following example displays the L2 information of the interface GigabitEthernet 0/1.

```
Hostname> enable
Hostname# show interfaces GigabitEthernet 0/1 switchport
Interface               Switchport Mode      Access Native Protected VLAN lists
GigabitEthernet 0/1     enabled    ACCESS    2      1      Disabled  ALL
```

Figure 1-2Output Fields of the show interface switchport Command

Field	Description

Interface	Indicates the interface name.
Switchport Mode	Indicates whether the switching mode is set.
Access	Indicates that the VLAN is accessed
Native	Indicates the native VLAN.
Protected	Indicates whether interface protection is enabled.
VLAN lists	Indicates the VLAN list.

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.26 show interfaces counters

Function

Run the **show interfaces counters** command to view the statistics of packets received and sent by an interface.

Syntax

show interfaces [*interface-type interface-number*] **counters** [**increment** | **errors** | **rate** | **summary**] [**up** | **down**] [**nozero**]

Parameter Description

interface-type interface-number: Type and number of the interface. If the interface type and number are not specified, the statistics of all interfaces are displayed.

increment: Displays the statistics of packets added in the previous sampling interval.

errors: Displays the statistics of error packets.

drops: Displays the statistics of dropped packets.

rate: Displays the packet sending/receiving rate of the interface.

summary: Displays a summary of interface packets.

up: Displays the statistics of the interface in **Up** state.

down: Displays the statistics of the interface in **Down** state.

nozero: Displays the statistics of the interface with some statistical values of interface packet quantity not equal to 0.

Command Modes

All modes except the user EXEC mode

Default Level

14

Usage Guidelines

If no interface name is specified, the packet statistics of all the interfaces are displayed.

Examples

The following example displays the statistics of the interface GigabitEthernet 0/1.

```
Hostname> enable
Hostname# show interfaces GigabitEthernet 0/1 counters
Interface : GigabitEthernet 0/1
5 minute input rate: 9144 bits/sec, 9 packets/sec
5 minute output rate: 1280 bits/sec, 1 packets/sec
Rxload               : 1%
InOctets             : 17310045
InPkts               : 1000(Unicast: 10%, Multicast: 10%, Broadcast: 80%)
InUcastPkts          : 100
InMulticastPkts      : 100
InBroadcastPkts      : 800
Txload               : 1%
OutOctets            : 1282535
OutPkts              : 1000(Unicast: 10%, Multicast: 10%, Broadcast: 80%)
OutUcastPkts         : 100
OutMulticastPkts     : 100
OutBroadcastPkts     : 800
Undersize packets    : 0
Oversize packets     : 0
collisions           : 0
Fragments            : 0
Jabbers              : 0
CRC alignment errors : 0
AlignmentErrors      : 0
FCSErrors            : 0
dropped packet events (due to lack of resources): 0
packets received of length (in octets):
  64:46264
  65-127: 47427
  128-255: 3478
  256-511: 658
  512-1023: 18016
  1024-1518: 125
Packet increment in last sampling interval(5 seconds):
  InOctets             : 10000
```

```
InPkts              : 1000(Unicast: 10%, Multicast: 10%, Broadcast: 80%)
InUcastPkts         : 100
InMulticastPkts     : 100
InBroadcastPkts     : 800
OutOctets           : 10000
OutPkts             : 1000(Unicast: 10%, Multicast: 10%, Broadcast: 80%)
OutUcastPkts        : 100
OutMulticastPkts    : 100
```

Table 1-1Output Fields of the show interfaces counters Command

Field	Description
Interface	Indicates the interface name.
5 minute input rate: bits/sec, packets/sec	Indicates the interface packet receiving rate.
5 minute output rate: bits/sec, packets/sec	Indicates the interface packet sending rate.
Rxload	Indicates the receiving bandwidth usage.
InOctets	Indicates the number of bytes in received packets.
InPkts	Indicates the sum of the received unicast, multicast, and broadcast packets. The percentages of unicast, multicast, and broadcast packets are in the brackets.
InUcastPkts	Indicates the number of unicast packets received by the interface.
InMulticastPkts	Indicates the number of multicast packets received by the interface.
InBroadcastPkts	Indicates the number of broadcast packets received by the interface.
Txload	Indicates the transmission bandwidth usage.
OutOctets	Indicates the number of bytes of total packets sent by the interface.
OutPkts	Indicates the sum of the sent unicast, multicast, and broadcast packets. The percentages of unicast, multicast, and broadcast packets are in the brackets.
OutUcastPkts	Indicates the number of unicast packets sent by the interface.
OutMulticastPkts	Indicates the number of multicast packets sent by the interface.
OutBroadcastPkts	Indicates the number of broadcast packets sent by the interface.
Undersize packets	Indicates the number of packets in the correct format and with a length less than 64 bytes.
Oversize packets	Indicates the number of packets in the correct format and with a length greater than the actually configured MTU value.

Field	Description
collisions	Indicates the number of packets in collision during transmission.
Fragments	Indicates the number of packets with a length less than 64 bytes and with CRC or alignment errors.
Jabbers	Indicates the number of packets with a length greater than 1518 bytes and with CRC or alignment errors.
CRC alignment errors	Indicates the number of received packets with CRC errors.
AlignmentErrors	Indicates the number of received packets with alignment errors.
FCSErrors	Indicates the number of received packets with FCS errors.
dropped packet events	Indicates the number of packet loss events of the interface.
packets received of length	Indicates the length of the received packets.
Packet increment in last sampling interval(5 seconds)	Indicates the incremental statistics of the packets in the previous sampling interval (5 seconds).
InOctets	Indicates the number of received bytes.
InPkts	Indicates the number of received packets.
InUcastPkts	Indicates the number of received unicast packets.
InMulticastPkts	Indicates the number of received multicast packets.
InBroadcastPkts	Indicates the number of received broadcast packets.
OutOctets	Indicates the number of sent bytes.
OutPkts	Indicates the number of sent packets.
OutUcastPkts	Indicates the number of sent unicast packets.
OutMulticastPkts	Indicates the number of sent multicast packets.

The following example displays the incremental statistics of the interface GigabitEthernet 0/1.

```
Hostname> enable
Hostname# show interfaces GigabitEthernet 0/1 counters increment
Interface : GigabitEthernet 0/1
Packet increment in last sampling interval(5 seconds):
  InOctets             : 10000
  InPkts               : 1000(Unicast: 10%, Multicast: 10%, Broadcast: 80%)
  InUcastPkts          : 100
  InMulticastPkts      : 100
  InBroadcastPkts      : 800
  OutOctets            : 10000
```

```
  OutPkts              : 1000(Unicast: 10%, Multicast: 10%, Broadcast: 80%)
  OutUcastPkts         : 100
  OutMulticastPkts     : 100
```

The following example displays the statistics of the error packets on the interface GigabitEthernet 0/1.

```
Hostname> enable
Hostname# show interfaces GigabitEthernet 0/1 counters errors
Interface    UnderSize            OverSize             Collisions
Fragments
Gi0/1        0                    0                    0                    0
Interface    Jabbers              CRC-Align-Err        Align-Err            FCS-
Err
Gi0/1        0                    0                    0                    0
```

The following example displays the packet sending/receiving rate information on the interface GigabitEthernet 0/1.

```
Hostname> enable
Hostname# show interface gigabitEthernet 0/1 counters rate
Interface    Sampling Time         Input Rate           Input Rate
Output Rate          Output Rate
                                   (bits/sec)           (packets/sec)
(bits/sec)           (packets/sec)
---- ------- ----------------------------
Gi0/1        5 seconds             23391                23                    124
0
```

The following example displays the summary of the packets on the interface GigabitEthernet 0/1.

```
Hostname> enable
Hostname# show interface gigabitEthernet 0/1 counters summary
Interface     InOctets             InUcastPkts          InMulticastPkts
InBroadcastPkts
Gi0/1         1475788005           1389                 45880503
11886621
Interface     OutOctets            OutUcastPkts         OutMulticastPkts
OutBroadcastPkts
Gi0/1         6667915              6382                 31629
13410
```

The following example displays the statistics of the dropped packets on the interface GigabitEthernet 0/1.

```
Hostname> enable
Hostname# show interface gigabitEthernet 0/1 counters drops
Interface : GigabitEthernet 0/1
 Input dropped packets                  : 2453
 Input no buffer packets                : 0
 Input qos dropped packets              : 0
 Output dropped packets                 : 0
 Output no buffer packets               : 0
 Forwarding entry dropped packets       : 2453
```

Table 1-2Output Fields of the show interfaces counters drops Command

Field	Description
Input dropped	Indicates the number of received packets that are dropped, excluding the packets dropped due to QoS restrictions or insufficient resources.
Input no buffer	Indicates the number of received packets that are dropped due to insufficient resources.
Input qos dropped	Indicates the number of received packets that are dropped due to QoS receiving restrictions.
Output dropped packets	Indicates the number of packets dropped during transmission.
Output no buffer	Indicates the number of packets that cannot be sent successfully due to lack of resources.
Forwarding entry dropped	Indicates the total number of packets dropped during forwarding, including packets dropped at the ingress and egress. Some products may not support this field. The calculation formula is: Number of packets dropped at the ingress + Number of packets dropped at the egress - Number of no buffer packets at the ingress - Number of no buffer packets at the egress - Number of CRC error packets

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.27 show interfaces counters rate physical-layer

Function

Run the **show interfaces counters rate physical-layer** command to view the packet receiving and sending rate information of an interface at the physical layer.

Syntax

show interfaces [*interface-type interface-number*] **counters rate physical-layer** [**up** | **down**] [**nozero**]

Parameter Description

interface-type interface-number: Type and number of the interface. If the interface type and number are not specified, the statistics of all interfaces are displayed.

up: Displays the statistics of the interface in **Up** state.

down: Displays the statistics of the interface in **Down** state.

nozero: Displays the statistics of the interface with some statistical values not equal to 0.

Command Modes

All modes except the user EXEC mode

Default Level

14

Usage Guidelines

If no interface name is specified, the packet sending and receiving rate information of all the interfaces at the physical layer are displayed.

Examples

The following example displays the packet sending and receiving rate information of the interface GigabitEthernet 0/1 at the physical layer.

```
Hostname> enable
Hostname# show interface GigabitEthernet 0/1 counters rate physical-layer
Interface    Sampling Time         Input Rate           Input Rate
Output Rate          Output Rate
                                   (bits/sec)           (packets/sec)
(bits/sec)           (packets/sec)
Te0/1        5 seconds             655557576               301267
655557132
```

Table 1-1Output Fields of the show interface usage Command

Field	Description
Interface	Indicates the interface name.
Sampling Time	Specifies the interface packet sampling time.
Input Rate(bits/sec)	Specifies the physical layer packet receiving rate of the interface.
Input Rate(packets/sec)	Specifies the physical layer packet receiving rate of the interface.
Output Rate(bits/sec)	Specifies the physical layer packet sending rate of the interface.

Output Rate(packets/sec)	Specifies the physical layer packet sending rate of the interface.

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.28 show interfaces link-state-change statistics

Function

Run the **show interfaces link-state-change statistics** command to view the change time and count of the interface link state.

Syntax

show interfaces [*interface-type interface-number*] **link-state-change statistics**

Parameter Description

interface-type interface-number: Type and number of the interface. If the interface type and number are not specified, the details of all interfaces are displayed.

Command Modes

All modes except the user EXEC mode

Default Level

14

Usage Guidelines

If no interface name is specified, the link state change information of all the interfaces are displayed.

Examples

The following example displays the link state change information of an interface.

```
Hostname> enable
Hostname# show int link-state-change statistics
Interface    Link state  Link state change times   Last change time     Link-
dither begin    Link-dither end
---- ------------ -------  -------  -----
Te0/1        down        0      2018-05-05 11:07:45  none                 none
```

Table 1-1Output Fields of show int link-state-change statistics Command

Field	Description
Interface	Indicates the interface name.
Link state	Indicates the current link state of the interface.
Link state change times	Indicates the link state change times of the interface. You can run the **clear link-state-change statistics** *interface-type interface-number* command to clear it.
Last change time	Indicates the last link state change time of the interface.
Link-dither begin	Indicates the start time of the last detected frequent link flapping. The value **none** indicates that no frequent link flapping occurs.
Link-dither end	Indicates the end time of the last detected frequent link flapping. The value **none** indicates that no frequent link flapping occurs. Condition of frequent link flapping: the link of the port flaps six times in 2s (the same as the condition of port flapping protection). After frequent port flapping (six times in 2s) is detected, the detection time is recorded as the start time of frequent flapping (**Link-dither begin**), and the detection continues in 2s. If no frequent port flapping is detected in 2s, or after the port is shut down by flapping protection, the detection time is recorded as the end time of frequent flapping (**Link-dither end**).

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.29 show interfaces mtu forwarding

Function

Run the **show interfaces mtu forwarding** command to view information about the forwarding plane MTU.

Syntax

show interfaces [*interface-type interface-number*] **mtu forwarding**

Parameter Description

interface-type interface-number: Type and number of the interface. If the interface type and number are not specified, the statistics of all interfaces are displayed.

Command Modes

All modes except the user EXEC mode

Default Level

14

Usage Guidelines

If no interface name is specified, the state information of all the interfaces are displayed.

The IP MTU of L2 interface is displayed as **NA**.

Examples

The following example displays the information about the forwarding plane MTU of the interface GigabitEthernet 1/1/1.

```
Hostname> enable
Hostname# show interface GigabitEthernet 0/1 mtu forwarding
Interface                      Mtu     IP Mtu
GigabitEthernet 0/1           1500    NA
```

Table 1-1Output Fields of the show interface mtu forwarding Command

Field	Description
Interface	Indicates the interface name.
Mtu	Indicates the MTU of the interface.
IP Mtu	For the forwarding plane MTU of the interface, the IP MTU of L2 interface is displayed as **NA**.

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.30 show interfaces status

Function

Run the **show interfaces status** command to view the status information of an interface.

Syntax

show interfaces [*interface-type interface-number*] **status**

Parameter Description

interface-type interface-number: Type and number of the interface. If the interface type and number are not specified, the details of all interfaces are displayed.

status: Displays status information of the interface, including the rate and duplex mode.

Command Modes

All modes except the user EXEC mode

Default Level

14

Usage Guidelines

If no interface name is specified, the state information of all the interfaces is displayed.

Examples

The following example displays the status information of the interface GigabitEthernet 0/1.

```
Hostname> enable
Hostname# show interfaces GigabitEthernet 0/1 status
Interface                                 Status    Vlan   Duplex   Speed     Type
----------------------------------------- --------  ----   -------  ---------
------
GigabitEthernet 0/1                       up        1      Full     1000M
copper
```

Table 1-1 Output Fields of the show interface status Command

Field	Description
Interface	Indicates the interface name.
Status	Indicates the interface link status.
Vlan	Indicates the VLAN ID of the interface.
Duplex	Indicates the duplex mode.
Speed	Indicates the interface rate.
Type	Indicates the interface medium type.

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.31 show interfaces status err-disabled

Function

Run the **show interfaces status err-disabled** command to view the errdisable status information of an interface.

Syntax

show interfaces [*interface-type interface-number*] **status err-disabled**

Parameter Description

interface-type interface-number: Type and number of the interface. If the interface type and number are not specified, the statistics of all interfaces are displayed.

Command Modes

All modes except the user EXEC mode

Default Level

14

Usage Guidelines

If no interface name is specified, the port errdisable status information of all the interfaces is displayed.

Examples

The following example displays the port errdisable status information of the interface GigabitEthernet 0/1.

```
Hostname> enable
Hostname# show interface gigabitEthernet 0/1 status err-disabled
Interface                         Status            Reason
GigabitEthernet 0/1              err-disabled     BPDU Guard
```

Table 1-1Output Fields of the show interface status err-disabled Command

Field	Description
Interface	Indicates the interface name.
Status	Indicates the errdisable status; **err-disable** is displayed in the case of a violation; otherwise no content is displayed.
Reason	Indicates the reason for the violation; no content is displayed if there is no violation.

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.32 show interfaces transceiver

Function

Run the **show interfaces transceiver** command to view the optical module information of an interface.

Syntax

show interfaces [*interface-type interface-number*] **transceiver** [**alarm** | **diagnosis**]

Parameter Description

interface-type interface-number: Type and number of the interface. If the interface type and number are not specified, the details of all interfaces are displayed.

transceiver: Displays the basic information of the optical module.

alarm: Displays the current fault alarms of the optical module. If no fault occurs, **None** is displayed.

diagnosis: Displays the current measurement value of the diagnostic parameter of the optical module.

Command Modes

All modes except the user EXEC mode

Default Level

14

Usage Guidelines

This command without any parameter can be used to display the optical module information of all the interfaces.

Examples

The following example displays the optical module information of the 10 Gigabit interface tenGigabitEthernet 0/49.

```
Hostname> enable
Hostname# show interfaces tenGigabitEthernet 0/49 transceiver
Transceiver Type    :  10GBASE-SR-SFP+
Connector Type      :  LC
Wavelength(nm)      :  850
Transfer Distance   :
    50/125 um OM2 fiber
        -- 300m
    62.5/125 um OM1 fiber
        -- 300m
Digital Diagnostic Monitoring  : YES
Vendor Serial Number           : M1102232386

Current diagnostic parameters[AP:Average Power]:
```

```
Temp(Celsius)   Voltage(V)      Bias(mA)            RX power(dBm)       TX
power(dBm)
43(OK)          3.27(OK)        6.24(OK)            -3.92(OK)[AP]       -1.90(OK)

Transceiver current alarm information:
None
```

Table 1-1Output Fields of the show interface transceiver Command

Field	Description
Transceiver Type	Indicates the type of the transmit end.
Connector Type	Indicates the type of the connector.
Wavelength(nm)	Indicates the optical wavelength.
Digital Diagnostic Monitoring	Indicates self-diagnosis monitoring.
Vendor Serial Number	Indicates serial number of the vendor.

The following example displays the current fault alarms of the optical module of the 10 Gigabit interface tenGigabitEthernet 0/49.

```
Hostname> enable
Hostname# show interfaces tenGigabitEthernet 0/49 transceiver alarm
tengigabitEthernet 0/49 transceiver current alarm information:
RX loss of signal
```

Table 1-2Output Fields of the show interface transceiver alarm Command

Field	Description
RX loss	Indicates loss of received packets.

The following example displays the current measurement value of the diagnostic parameter of the optical module for the 10 Gigabit interface tenGigabitethernet 0/49.

```
Hostname> enable
Hostname# show interfaces tenGigabitEthernet 0/49 transceiver diagnosis
Current diagnostic parameters[AP:Average Power]:
Temp(Celsius)   Voltage(V)      Bias(mA)            RX power(dBm)       TX
power(dBm)
38(OK)          3.20(OK)        0.04(OK)            -40.00(alarm)[AP]   -
40.00(alarm)
```

Table 1-3Output Fields of the show interface transceiver diagnosis Command

Field	Description
Temp(Celsius)	Indicates the temperature.

Field	Description
Voltage(V)	Indicates the voltage.
Bias(mA)	Indicates the current.
RX power(dBm)	Indicates the receive power.
TX power(dBm)	Indicates the transmit power.

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.33 show interfaces usage

Function

Run the **show interfaces usage** command to view the bandwidth usage of an interface.

Syntax

show interfaces [*interface-type interface-number*] **usage** [**up** | **down**]

Parameter Description

interface-type interface-number: Type and number of the interface. If the interface type and number are not specified, the statistics of all interfaces are displayed.

up: Displays the bandwidth usage of the interface in **Up** state.

down: Displays the bandwidth usage of the interface in **Down** state.

Command Modes

All modes except the user EXEC mode

Default Level

14

Usage Guidelines

If no interface name is specified, the bandwidth usage information of all the interfaces is displayed. The bandwidth here refers to the actual link bandwidth rather than the configured bandwidth value on the interface.

The support to parameters varies for the L2 and L3 interfaces. The actual support conditions of specific interfaces prevail.

Examples

The following example displays the bandwidth usage information of the interface GigabitEthernet 0/1.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface GigabitEthernet 0/1
Interface                    Bandwidth     Average Usage      Output Usage
Input Usage
GigabitEthernet 0/0          1000 Mbit     0.002822759%       0.001183280%
0.004462237%
```

Table 1-1Output Fields of the show interface usage Command

Field	Description
Interface	Indicates the interface name.
Bandwidth	Indicates the bandwidth of the interface link, that is, the maximum rate of the link.
Average Usage	Indicates the current bandwidth usage.
Input Usage	Indicates the receiving bandwidth usage.
Output Usage	Indicates the transmission bandwidth usage.

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.34 show mgmt virtual

Function

Run the **show mgmt virtual** command to view the information of the virtual management port.

Syntax

show mgmt virtual

Parameter Description

N/A

Command Modes

All modes except the user EXEC mode

Default Level

14

Usage Guidelines

N/A

Examples

The following example displays the information of the virtual management port.

```
Hostname> enable
Hostname# show mgmt virtual
Mgmt 0
Virtual MGMT Member:
    1/M1/MGMT0: Active
```

Table 1-1Output Fields of the show mgmt virtual Command

Field	Description
Virtual MGMT Member	Indicates the members of the management port.
1/M1/MGMT0	Indicates the management port 0.
Active	Indicates the active status of the management port.

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.35 show split summary

Function

Run the **show split summary** command to view the splitting/combining information of an interface.

Syntax

show split summary

Parameter Description

N/A

Command Modes

All modes except the user EXEC mode

Default Level

14

Usage Guidelines

You can run this command to view the splitting/combining information of all the splittable interfaces.

Examples

The following example displays the splitting/combining information of an interface.

```
Hostname> enable
Hostname# show split summary
Port          SpliteStatus SplitPorts
Hu1/1         merged       Hu1/1:1    Hu1/1:2    Hu1/1:3    Hu1/1:4
Hu1/2         merged       Hu1/2:1    Hu1/2:2    Hu1/2:3    Hu1/2:4
Hu1/3         merged       Hu1/3:1    Hu1/3:2    Hu1/3:3    Hu1/3:4
Hu1/4         merged       Hu1/4:1    Hu1/4:2    Hu1/4:3    Hu1/4:4
Hu1/5         merged       Hu1/5:1    Hu1/5:2    Hu1/5:3    Hu1/5:4
Hu1/6         merged       Hu1/6:1    Hu1/6:2    Hu1/6:3    Hu1/6:4
Hu1/7         merged       Hu1/7:1    Hu1/7:2    Hu1/7:3    Hu1/7:4
Hu1/8         merged       Hu1/8:1    Hu1/8:2    Hu1/8:3    Hu1/8:4
Hu3/25        merged       Hu3/25:1   Hu3/25:2   Hu3/25:3   Hu3/25:4
Hu3/26        merged       Hu3/26:1   Hu3/26:2   Hu3/26:3   Hu3/26:4
```

Table 1-1 Output Fields of the show split summary Command

Field	Description
Port	Indicates the main interface splittable.
SpliteStatus	Indicates the current splitting/combining status.
SplitPorts	Indicates the member interfaces after the splittable interface is split.

Notifications

N/A

Platform Description

N/A

Related Commands

N/A

1.36 shutdown

Function

Run the **shutdown** command to shut down a specific interface.

Run the **no** form of this command to enable the interface.

The interface is in **Up** state by default.

Syntax

shutdown

no shutdown

Parameter Description

N/A

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

You can run the command to shut down interfaces (including Ethernet ports, APs, and SVIs). Other configurations of the interfaces still exists, but does not work. You can run the **show interfaces** command to view the interface status.

Running this command on an interface means disabling the interface. On the synchronous serial interface, the DTR and RTS will be directly set to invalid. If the external modem is provided with a DTR or RTS signal indicator, the indicator will be turned off. The indicator at the synchronous interface of the device will also go out.

Note

To prevent unwanted link flapping caused by frequent operation of the **shutdown/no shutdown** command, there should be a certain time interval (which must be greater than the carrier delay of the interface) before/after configuring the **shutdown**/**no shutdown** command twice on an interface.

Examples

The following example shuts down the interface GigabitEthernet 0/1.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface GigabitEthernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# shutdown
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

Related Commands

N/A

1.37 snmp trap link-status

Function

Run the **snmp trap link-status** command to enable the LinkTrap notification sending function for interface status change.

Run the **no** form of this command to restore the default configuration.

The LinkTrap notification sending function for interface status changes is enabled by default.

Syntax

snmp trap link-status

no snmp trap link-status

Parameter Description

N/A

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

You can run the command to configure the link trap sending function for the interfaces (including Ethernet ports, APs, and SVIs). When the function is enabled, the SNMP module sends link traps if the link status changes on the interface.

Examples

The following example disables the LinkTrap notification sending function on the interface GigabitEthernet 0/1.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface GigabitEthernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# no snmp trap link-status
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.38 snmp-server if-index persist

Function

Run the **snmp-server if-index persist** command to enable the interface index persistence function.

The interface index persistence function is disabled by default.

Syntax

snmp-server if-index persist

Parameter Description

N/A

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

After the **snmp-server if-index persist** command is executed, the indexes of all the current interfaces are saved during configuration saving, and the indexes remain unchanged after the device is restarted.

Examples

The following example enables the interface index persistence function. In other words, the interface index remains unchanged after the device is restarted.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# snmp-server if-index persist
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.39 speed

Function

Run the **speed** command to configure the rate of an interface.

Run the **no** form of this command to restore the default configuration.

The interface rate is adaptive by default.

Syntax

speed [**10** | **100** | **1000** | **10G** | **40G** | **auto**]

no speed

Parameter Description

10: The interface rate of 10 Mbps.

100: The interface rate of 100 Mbps.

1000: The interface rate of 1000 Mbps.

10G: The interface rate of 10 Gbps.

40G: The interface rate of 40 Gbps.

Auto: Indicates that the rate of the interface is adaptive.

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

If an interface is an AP member port, the rate of this interface is determined by the rate of the AP. When the interface exits the AP, it uses its own rate configuration. You can run the **show interfaces** command to view the rate configuration. The rate options available to an interface vary with the type of the interface. For example, you cannot set the rate of a small form-factor pluggable (SFP) interface to 10 Mbps.

You need to set **duplex** in addition to **speed** when using the interface auto-negotiation function, that is, the duplex mode and 10/100 Mbps rate adaptation. The following table describes usage of the **duplex** and **speed** commands.

Table 1-1Correspondence between duplex and rate

duplex	speed	Work Mode
Full	10	Forced to work in 10M full duplex mode.
Full	100	Forced to work in 100M full duplex mode.
Half	10	Forced to work in 10M full duplex mode.
Half	100	Forced to work in 100M full duplex mode.

Auto	auto	The Ethernet interface works in adaptive mode.

Examples

The following example sets the rate of the interface GigabitEthernet 0/1 to 100 Mbps.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface GigabitEthernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# speed 100
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.40 split interface

Function

Run the **split interface** command to configure the interface splitting function.

Run the **no** form of this command to delete the interface splitting configuration.

The interface is in combined status by default.

Syntax

split interface FortyGigabitEthernet *interface-number*

no split interface FortyGigabitEthernet *interface-number*

Parameter Description

interface-number: Interface number.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

N/A

Examples

The following example splits the 40 Gbps interface FortyGigabitEthernet 0/1 into four 10 Gbps interfaces.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# split interface FortyGigabitEthernet 0/1
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.41 statistics

Function

Run the **statistics** command to enable the interface traffic statistics collection and IP traffic statistics collection functions.

Run the **no** form of this command to disable the interface traffic statistics collection and IP traffic statistics collection functions.

The IP traffic statistics collection function is disabled for all the interfaces by default.

Syntax

statistics { **enable** | **ip enable** }

no statistics { **enable** | **ip enable** }

Parameter Description

enable: Enables the interface traffic statistics collection function.

ip enable: Enables the IP traffic statistics collection function of the interface.

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

You can run the **show interface** *port-name* command to view the statistical results, and the **clear counter** command to clear the statistics.

The interface traffic statistics collection and IP traffic statistics collection functions can be enabled for the virtual interfaces such as sub-interfaces and SVIs. The IP traffic statistics collection function can be enabled for the Ethernet interface and Ethernet AP.

Support for interface statistics collection varies with different products. For example, only the IP traffic statistics collection function can be enabled for some products.

The **statistics enable** and **route-sample enable** commands have the same function. The **show running-config** command is used to display all the configurations.

If the **ip-sample enable** command has been configured, when the **statistics enable** command is configured, the configuration made by **ip-sample enable** is automatically cleared first, the interface IP traffic statistics collection function is disabled, and the interface traffic statistics collection function is still enabled.

If the **ip-sample enable** command has been configured, when the **statistics ip enable** command is configured, the configuration made by **ip-sample enable** will be automatically cleared first, the interface traffic statistics collection function is disabled, and the interface IP traffic statistics collection function is still enabled.

Examples

The following example enables the IP traffic statistics collection function for an Ethernet interface.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface GigabitEthernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# statistics ip enable
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.42 switchport

Function

Run the **switchport** command to configure the L2 mode for an interface.

Run the **no** form of this command to configure the L3 mode for an interface.

All the interface are in the L2 mode by default.

Syntax

switchport

no switchport

Parameter Description

N/A

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

This command takes effect only for the interfaces associated with physical ports. The **switchport** command shuts down the interface and then restarts it, during which the device sends a message indicating the connection status. If an interface is switched from L2 mode to L3 mode, all the L2 attributes of the interface are deleted.

Examples

The following example configures the L3 mode for the interface GigabitEthernet 0/1.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface GigabitEthernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# no switchport
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.43 switchport protected

Function

Run the **switchport protected** command to configure a port as protected port.

A protected port is not configured for the port by default.

Syntax

switchport protected

Parameter Description

N/A

Command Modes

Interface configuration mode

Default Level

14

Usage Guidelines

When the ports on the device need to be isolated from each other, these ports can be set as protected ports. In this case, only the L2 communication is blocked, and the L3 route is still accessible. You can run the global command **protected-ports route-deny** to block the L3 route.

Examples

The following example configures the port GigabitEthernet 0/1 as protected port.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# interface GigabitEthernet 0/1
Hostname(config-if-GigabitEthernet 0/1)# switchport protected
```

Notifications

N/A

Common Errors

N/A

Platform Description

This command is not supported on the AP of the CB line card.

Related Commands

N/A

1.44 system mtu

Function

Run the **system mtu** command to configure the MTU of the system.

The MTU of the system is not configured by default.

Syntax

system mtu *mtu-value*

Parameter Description

mtu-value: MTU value, in bytes. The value range is related to the interface type, for example, the value range for a 1000 Mbps port is from 64 to 9216. The default value is 1500.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

Configuring the MTU of the system will update the MTU effective values of all the Ethernet interfaces (including the APs) of the system. However, if the interface is configured with an MTU, the MTU configured for the interface will take effect.

Examples

The following example sets the system MTU to 9000.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# system mtu 9000
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A