



## Port Statistics

- [Overview of Port Statistics, on page 1](#)
- [Configure 5-Minute Port Rate Statistics, on page 1](#)
- [Monitor Minute Port Rate Statistics, on page 2](#)
- [Configuration Example: Port Statistics, on page 3](#)

## Overview of Port Statistics

Configuring port statistics allows an administrator to detect network failures and analyze the cause. You can configure port statistics to capture the following information:

- The rate at which a port receives and transmits packet.
- The errors occurring while receiving and transmitting a packet.
- Classification by bytes.
- Packet loss occurring for unicast and multicast packets.

## Configure 5-Minute Port Rate Statistics

Port rate statistics are used to calculate the average rate of receiving packet and transmitting packets during a specified time. The default statistical cycle and largest statistical period are five minutes.

To configure 5-minute port rate statistics, perform this procedure.

### Procedure

	<b>Command or Action</b>	<b>Purpose</b>
<b>Step 1</b>	<b>enable</b>  <b>Example:</b> Device> <b>enable</b>	Enables privileged EXEC mode.  Enter your password, if prompted.
<b>Step 2</b>	<b>configure terminal</b>  <b>Example:</b>	Enters global configuration mode.

	Command or Action	Purpose
	Device# <code>configure terminal</code>	
<b>Step 3</b>	<code>[no] port-rate-statistics interval value</code> <b>Example:</b> Device(config)# <code>port-rate-statistics interval</code>	(Optional) Configures the interface statistics interval. <i>value</i> : Time interval. The default is 5 minutes. Use the <b>[no] port-rate-statistics interval</b> command to restore the default settings.

## Monitor Minute Port Rate Statistics

Use the following command to monitor port rate statistics.

*Table 1: Command to Monitor Minute Port Rate Statistics*

Command	Purpose
<code>show statistics interface [ethernet port-number]</code>	Displays port rate statistics information.

## Monitor Ordinary Interface Packet Statistics

Use the following commands to monitor ordinary interface packet statistics.

*Table 2: Commands to Monitor Ordinary Interface Packet Statistics*

Command	Purpose
<code>show statistics dynamic interface</code>	Displays interface real-time statistics information.
<code>show utilization interface</code>	Displays interface utilization.
<code>show interface ethernet port-number</code>	Displays interface information.

## Monitor CPU Interface Statistics

Use the following commands to monitor CPU interface statistics.

*Table 3: Commands to Monitor CPU Interface Statistics*

Command	Purpose
<code>show cpu-statistic ethernet port-number</code>	Displays CPU interface statistics information.
<code>clear cpu-statistics</code>	Clears CPU interface statistics.
<code>show cpu-classification [interface ethernet port-number]</code>	Displays CPU classification statistics information.
<code>clear cpu-statistics</code>	Clears CPU classification statistics information.

Command	Purpose
<code>show utilization interface</code>	Displays interface utilization.
<code>show cpu-utilization</code>	Displays CPU utilization.

## Monitor Port Statistics of an Aggregation Group

Use the following commands to monitor the port statistics of an aggregation group.

*Table 4: Commands to Monitor Port Statistics of an Aggregation Group*

Command	Purpose
<code>show statistics channel-group [channel-id]</code>	Displays LACP statistical information.
<code>clear channel-group [channel-id]</code>	Clears LACP statistical information.

## Configuration Example: Port Statistics

The following example shows how to display interface statistics information:

```
Device> enable
Device# configure terminal
Device(config)# show statistics interface ethernet 1/1
Port number   : e1/1
last 5 minutes input rate 6198600 bits/sec, 12106 packets/sec
last 5 minutes output rate 28256 bits/sec, 55 packets/sec
64 byte packets:4267810
65-127 byte packets:0
128-255 byte packets:0
256-511 byte packets:0
512-1023 byte packets:0
1024-1518 byte packets:0
4267707 packets input, 273132992 bytes , 1 discarded packets
4267707 unicasts, 0 multicasts, 0 broadcasts
1 input errors, 0 FCS error, 0 symbol error, 0 false carrier
1 runts, 0 giants
23763 packets output, 1520832 bytes, 0 discarded packets
0 unicasts, 23763 multicasts, 0 broadcasts
0 output errors, 0 deferred, 0 collisions
0 late collisions
Total entries: 1.
```

The following example shows how to display interface statistic information:

```
Device> enable
Device# configure terminal
Device(config)# show interface ethernet 1/1
Fast Ethernet e1/1 current state: enabled, port link is up
Time duration of linkup is 31 second
Hardware address is 00:0a:5a:00:04:1e
SetSpeed is auto, ActualSpeed is 100M, Duplex mode is full
```

```
Current port type: 100BASE-T
Priority is 0
Flow control is disabled
Broadcast storm control target rate is 50000pps
PVID is 1
Port mode: hybrid
Untagged VLAN ID : 1
Input  : 5361414 packets, 343130240 bytes
         0 broadcasts, 0 multicasts, 5361414 unicasts
Output : 23763 packets, 1520832 bytes
         0 broadcasts, 23763 multicasts, 0 unicasts.
```