Manage Interface Statistics on a Switch

Objective

As the administrator of the network, it is good practice to check the behavior of the interfaces on a switch. Good maintenance is key in the performance of a network. With the Cisco Small Business Series Switches, you can check how many packets are being sent through an interface and in which form.

The Interface page of the switch is useful for analyzing the amount of traffic that is both sent and received and its dispersion such as Unicast, Multicast, and Broadcast packets. Furthermore, if an interface has problems, you can perform a diagnostic test on the cable that is plugged on that interface to see its status. With this information in hand, you can make better decisions when you troubleshoot an interface.

This article provides instructions on how to manage the statistics and diagnostics of the interfaces on your switch.

Applicable Devices

- Sx200 Series
- Sx250 Series
- Sx300 Series
- Sx350 Series
- SG350X Series
- Sx500 Series
- Sx550X Series
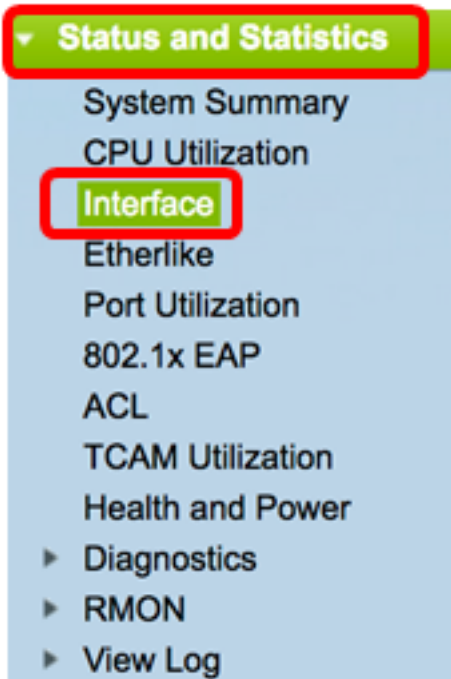
Software Version

- 1.4.7.06 — Sx200, Sx300, Sx500
- 2.2.8.04 — Sx250, Sx350, SG350X, Sx550X

Manage Interface Statistics on your Switch

Manage Statistics of an Interface

Step 1. Log in to the web-based utility of your switch then choose **Status and Statics > Interface**.

Note: The available menu options may vary depending on the device model. In this example, SG350X-48MP is used.
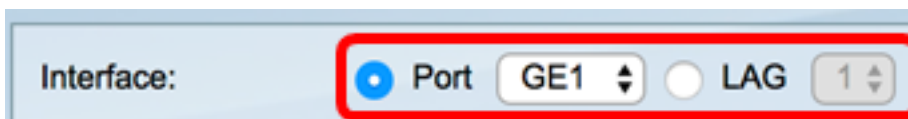
Step 2. In the Interface area, choose the interface for which the Ethernet statistics are to be displayed.

Note: In this example, Port GE4 of Unit 2 is chosen.
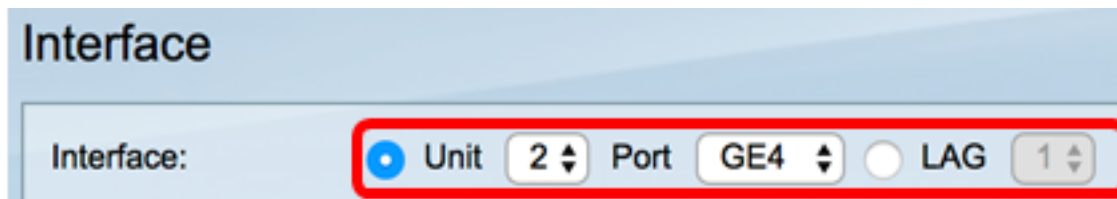
Note: If you have a non-stackable switch such as Sx250 or Sx300 Series switch, the options are Port and LAG only.

Step 3. Click a refresh rate from Refresh Rate area. This is the time period that passes before the interface statistics are refreshed.

- No refresh — The information about the interface that will not refresh with new information.
- 15 sec — The information about the interface refreshes every 15 seconds.
- 30 sec — The information about the interface refreshes every 30 seconds.
- 60 sec — The information about the interfaces refreshes every 60 seconds

Note: In this example, 60 sec is chosen.

The Receive Statistics area displays the following information for the chosen interface:

Receive Statistics

Total Bytes (Octets): 117319524

Unicast Packets: 3387

Multicast Packets: 530502

Broadcast Packets: 291718

Packets with Errors: 0

Receive Statistics

- Total Bytes (Octets) — Displays the number of octets received, which includes the number of bad packets and the Frame Check Sequence (FCS) octets. The FCS checks if the validity of a frame.
- Unicast Packets — Displays the information about the number of good unicast packets received. A unicast is a one-to-one connection between two users.
- Multicast Packets — Displays the information about the number of good multicast packets received. A multicast is one-to-many connection between one and one or more users.
- Broadcast Packets — Displays the information about the number of good broadcast packets received. A broadcast is a connection between one to all the members that belong to a network segment.
- Packets with Errors — Displays the information about the number of packets with errors received. These packets can be unicast, multicast, or broadcast that during the transmission got corrupted or dropped.
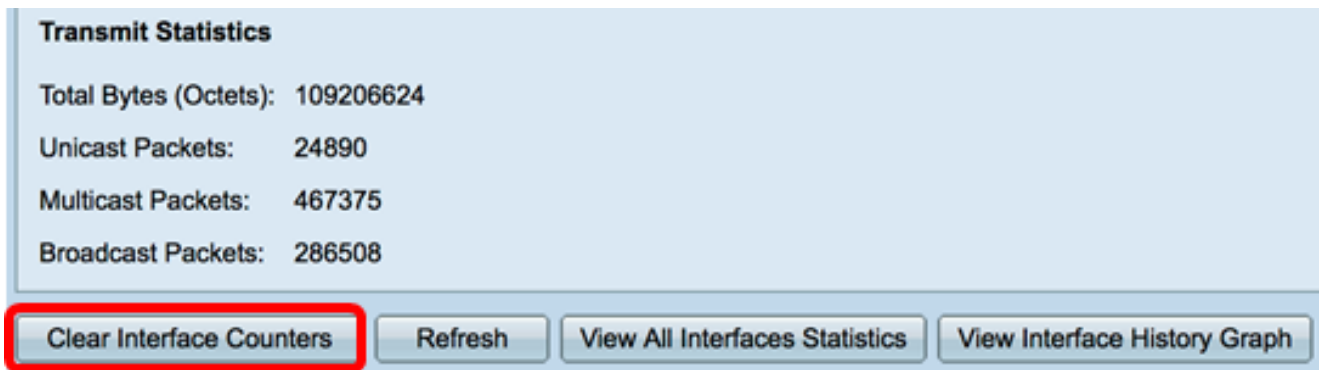
The Transmit Statistics area displays the following information for the chosen interface:

Transmit Statistics

Total Bytes (Octets): 6862122

Unicast Packets: 2811

Multicast Packets: 24833

Broadcast Packets: 1190

- Total Bytes (Octets) — Displays the number of octets transmitted, which includes the number of bad packets and the FCS octets.
- Unicast Packets — Displays the information about the number of good unicast packets transmitted.
- Multicast Packets — Displays the information about the number of good multicast packets transmitted.
- Broadcast Packets — Displays the information about the number of good broadcast

packets transmitted.

Step 4. (Optional) Click **Clear Interface Counters** to clear the counters of the chosen interface.
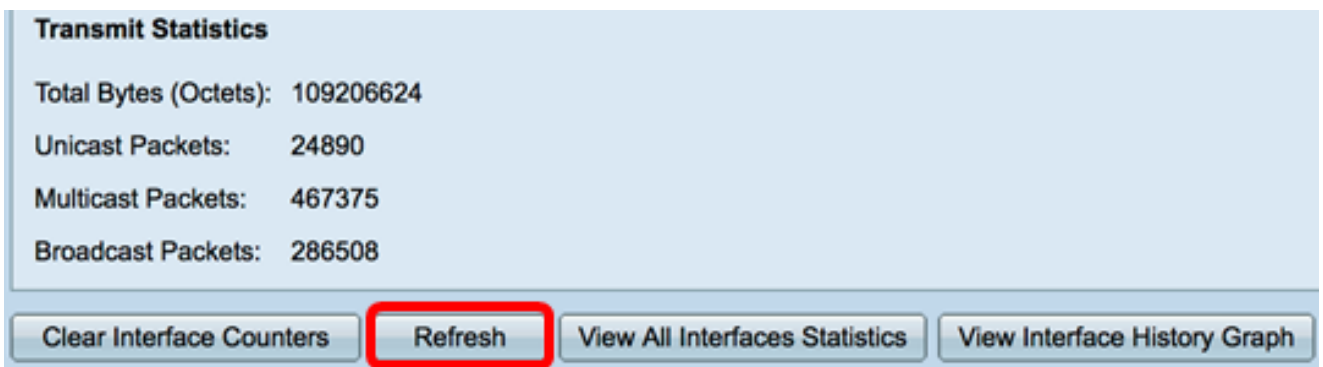
Transmit Statistics

Total Bytes (Octets): 109206624

Unicast Packets: 24890

Multicast Packets: 467375

Broadcast Packets: 286508

| Clear Interface Counters | Refresh | View All Interfaces Statistics | View Interface History Graph |

Step 5. (Optional) Click **Refresh** to refresh the statistics page.

Transmit Statistics

Total Bytes (Octets): 109206624

Unicast Packets: 24890

Multicast Packets: 467375

Broadcast Packets: 286508

| Clear Interface Counters | Refresh | View All Interfaces Statistics | View Interface History Graph |

You should now have successfully managed the statistics of an interface on your switch.

View Statistics of All Interfaces

Step 1. In the Interface page, click **View All Interfaces Statistics** to see all ports in table view.

Receive Statistics

Total Bytes (Octets): 39404620

Unicast Packets: 31596

Multicast Packets: 31242

Broadcast Packets: 147

Packets with Errors: 0

Transmit Statistics

Total Bytes (Octets): 109494152

Unicast Packets: 27812

Multicast Packets: 467472

Broadcast Packets: 286533

| Clear Interface Counters | Refresh | View All Interfaces Statistics | View Interface History Graph |

Step 2. (Optional) Choose a refresh rate from Refresh Rate drop-down list. This is the time period that passes before the interface statistics are refreshed.

Interface | No Refresh
15 sec
Refresh Rate | ✓ 30 sec
60 sec
Interface Statistics Table

Note: In this example, 30 sec is chosen.

Step 3. Choose the interface type from the Interface Type drop-down list.

Interface Statistics Table

Port of Unit 1
Filter: *Interface Type* equals to | ✓ Port of Unit 2 | Go
LAG
Interface | Receive Stati...

Note: In this example, Port of Unit 2 is chosen.

Step 4. Click **Go**.

Interface Statistics Table

Filter: *Interface Type* equals to | Port of Unit 2 ⬍ | Go

The Interface Statistics Table will display the statistics of all the ports of the chosen switch.

Interface	Receive Statistics					Transmit Statistics			
	Total Bytes (Octets)	Unicast Packets	Multicast Packets	Broadcast Packets	Packets with Errors	Total Bytes (Octets)	Unicast Packets	Multicast Packets	Broadcast Packets
GE1	0	0	0	0	0	0	0	0	0
GE2	0	0	0	0	0	0	0	0	0
GE3	1494271836	2157594	376390	283631	0	523855940	2085270	156868	3119
GE4	49908434	39187	31481	149	0	110098356	34026	467571	286542
GE5	0	0	0	0	0	0	0	0	0
GE6	0	0	0	0	0	0	0	0	0
GE7	0	0	0	0	0	0	0	0	0

Step 5. (Optional) Click **Clear All Interface Counters** to clear the counters of the chosen interface.

GE46	0	0	0	0	0	0	0	0	0
GE47	0	0	0	0	0	0	0	0	0
GE48	0	0	0	0	0	0	0	0	0
XG1	0	0	0	0	0	0	0	0	0
XG2	4232964	5500	494	2	0	1363561	4083	2855	1143

ar Interface Counters | **Clear All Interfaces Counters** | View Interface Statistics | View Interface History Graph | Refresh

Step 6. (Optional) Click **Refresh** to refresh the statistics page.

GE46	0	0	0	0	0	0	0	0	0
GE47	0	0	0	0	0	0	0	0	0
GE48	0	0	0	0	0	0	0	0	0
XG1	0	0	0	0	0	0	0	0	0
XG2	4232964	5500	494	2	0	1363561	4083	2855	1143

ar Interface Counters | Clear All Interfaces Counters | View Interface Statistics | View Interface History Graph | **Refresh**

You should now have successfully viewed the statistics of all the ports of your switch.

Graphic RMON Statistics View of an Interface

Note: This feature is only available to Sx250, Sx350, SG350X, and Sx550X Series switches.

Step 1. In the Interface page, click the **View Interface History Graph** button to display these results in graphic form.

Receive Statistics

Total Bytes (Octets): 39404620

Unicast Packets: 31596

Multicast Packets: 31242

Broadcast Packets: 147

Packets with Errors: 0

Transmit Statistics

Total Bytes (Octets): 109494152

Unicast Packets: 27812

Multicast Packets: 467472

Broadcast Packets: 286533

| Clear Interface Counters | Refresh | View All Interfaces Statistics | View Interface History Graph |

Step 2. In the Interface area, choose the interface for which the Ethernet statistics are to be displayed.

Note: In this example, Port GE4 of Unit 2 is chosen.

Interface

Interface: ● Unit [2 ▲] Port [GE4 ▲] ○ LAG [1 ▲]

Note: If you have a non-stackable switch such as Sx250 Series switch, the options are Port and LAG only.

Interface: ● Port [FE10 ▲] ○ LAG [1 ▲]

Step 3. (Optional) Check the Receive Statistics check boxes that you want to be displayed.

Receive Statistics

Total Bytes (Octets) ☑

Unicast Packets ☑

Multicast Packets ☑

Broadcast Packets ☑

Packets with Errors ☑

Note: In this example, all check boxes are checked.

Step 4. (Optional) Check the Transmit Statistics check boxes that you want to be displayed.

Transmit Statistics

|	
Total Bytes (Octets)	☑
Unicast Packets	☑
Multicast Packets	☑
Broadcast Packets	☑
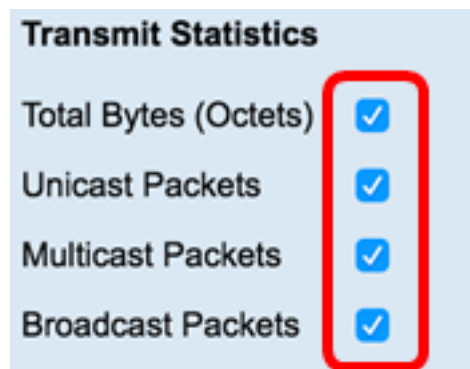
Note: In this example, all check boxes are checked.

Step 5. (Optional) From the Time Span area, click the time span of the interface statistics that you want to view.

Time Span:	○ Last 5 Minutes
	◉ Last Hour
	○ Last Day
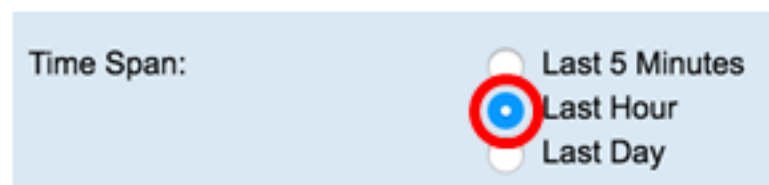
Note: In this example, Last Hour is chosen.

The Packets chart should display the statistics of the chosen interface and packets on your switch.
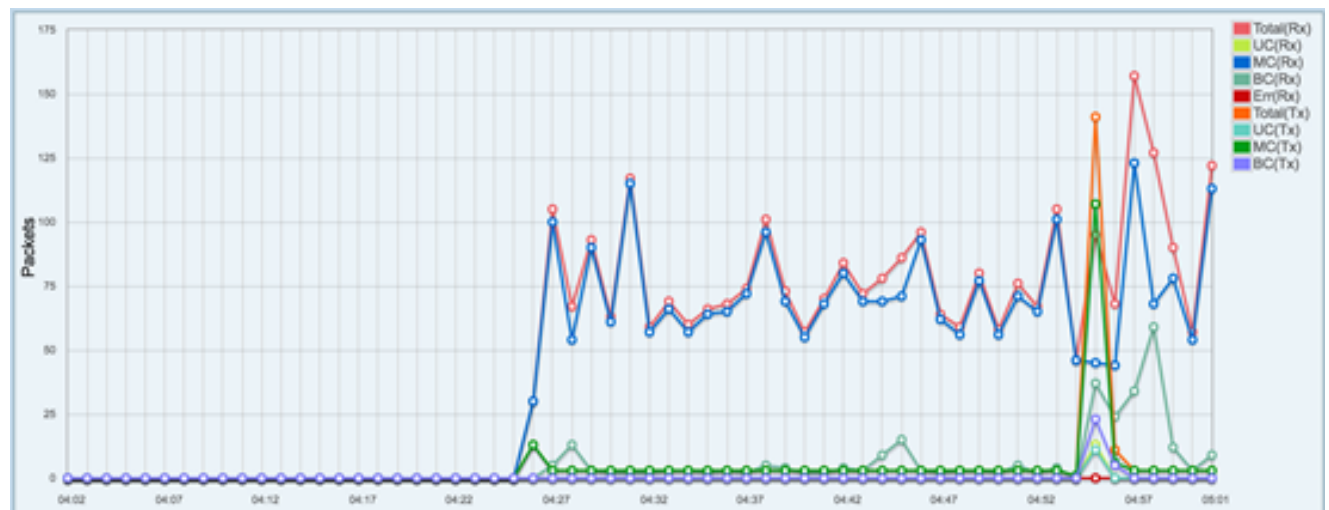
You should now have successfully viewed the graphic statistics of an interface on your switch.

Note: If you figured that an interface has problems upon viewing the statistics, you can perform a diagnostic test on the cable that is plugged in to that interface to see its status. To learn how, click here.