



Monitoring QoS Statistics

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Information About QoS Statistics

Statistics are maintained for each policy, class action, and match criteria per interface. You can enable or disable the collection of statistics globally using the **[no] qos statistics** command. You can display statistics using the **show policy-map** interface command, and you can clear statistics based on an interface or policy map with the **clear qos statistics** command. Statistics are enabled by default and can be disabled globally.

Prerequisites for Monitoring QoS Statistics

You are logged in to the CLI in EXEC mode.

Enabling QoS Statistics

You can enable or disable QoS statistics for all interfaces on the device.



Note

By default, QoS statistics are enabled.

Procedure

| | Command or Action | Purpose |
|---------------|---|---|
| Step 1 | switch# configure terminal | Enters global configuration mode. |
| Step 2 | switch(config)# qos statistics | Enables QoS statistics on all interfaces. |
| Step 3 | switch(config)# show policy-map interface | (Optional) Displays the status of the global statistics and the configured policy maps on all interfaces. |
| Step 4 | switch(config)# copy running-config startup-config | (Optional) Saves the running configuration persistently through reboots and restarts by copying it to the startup configuration. |

```
switch# config terminal
switch(config)# qos statistics
switch(config)# show policy-map interface
switch(config)# copy running-config startup-config
```

Displaying QoS Statistics

Before You Begin

You know the interface for which statistics are needed.



Note

Statistics for individual interfaces are often the most useful.

Procedure

| | Command or Action | Purpose |
|---------------|--|--|
| Step 1 | switch# show policy-map [<i>policy-map-name</i> interface [brief ethernet interface_number output type qos port-channel | Displays the specified statistics. To achieve the best result when your system has a large number of policies, use this command with specific arguments, such as specifying a particular interface or port channel. |

| | Command or Action | Purpose |
|--|--|--|
| | <i>number</i> vethernet <i>interface_number</i> input type qos type qos] | <ul style="list-style-type: none"> • Use the interface keyword with the following keywords to display the service policy on an interface: <ul style="list-style-type: none"> ◦ brief—displays a brief report of all policies attached to interfaces ◦ ethernet—displays statistics for an Ethernet interface. ◦ input type qos—displays statistics for QoS input policies. ◦ output type qos—displays statistics for QoS output policies. ◦ port-channel—displays statistics for a port channel interface. ◦ vethernet—displays the statistics for a vEthernet interface. • Use the type qos keyword to display the type of policy map. |

```
switch# show policy-map interface ethernet 2/1
```

Clearing QoS Statistics

Procedure

| | Command or Action | Purpose |
|---------------|---|--------------------------------------|
| Step 1 | switch # clear qos statistics [interface {ethernet <i>interface_number</i> port-channel number vethernet <i>interface_number</i> output type qos input type qos }] | Clears the specified QoS statistics. |

```
switch# clear qos statistics type qos
```

Configuration Example for QoS Statistics

This example shows how to display statistics for policy maps that are configured on interfaces:

```
switch(config)# show policy-map interface
Global statistics status :   enabled
Vethernet3
  Service-policy (qos) input:   new-policy
```

```

policy statistics status:  enabled

Class-map (qos):  class-default (match-any)
  59610700 packets
  set prec 5

Vethernet5

Service-policy (qos) output:  new-policer
policy statistics status:  enabled

Class-map (qos):  new-class (match-all)
  344661013 packets
  Match: precedence 5
  police cir 900 mbps bc 200 ms
    conformed 505953339796 bytes, 899924196 bps action: transmit
    violated 12285218014 bytes, 22283000 bps action: drop

```

This example shows how to display statistics for a specific IPv4 access control list (ACL):

```

switch(config)# show ip access-lists protoacl

IP access list protoacl
  statistics per-entry
    10 permit icmp 7.120.1.10/32 7.120.1.20/32
    20 permit tcp 7.120.1.10/32 7.120.1.20/32 dscp af11
    30 permit udp 7.120.1.10/32 7.120.1.20/32 precedence critical
    50 permit ip 7.120.1.20/32 7.120.1.10/32
    60 permit ip 7.120.1.20/32 7.120.1.10/32 dscp af11
    70 permit ip 7.120.1.20/32 7.120.1.10/32 precedence critical

```

This example shows how to display the status of the global statistics and the configured policy maps on a specific interface:

```

switch(config)# show policy-map interface vethernet 3

Global statistics status :  enabled

Vethernet3

Service-policy (qos) input:  policy-protoacl
policy statistics status:  enabled

Class-map (qos):  class-protoacl (match-any)
  132 packets
  Match: access-group protoacl
    132 packets
  set qos-group 100

```

Standards

No new or modified standards are supported by this feature, and support for existing standards has not been modified by this feature.

MIBs

| MIBS | MIBs Link |
|-------------------|---|
| CISCO-PROCESS-MIB | To locate and download MIBs, go to the following URL: http://www.cisco.com/public/sw-center/netmgmt/cmtk/mibs.shtml |

RFCs

No RFCs are supported by this feature.

Technical Assistance

| Description | Link |
|--|---|
| Technical Assistance Center (TAC) home page, contains 30,000 pages of searchable technical content, including links to products, technologies, solutions, technical tips, and tools. Registered Cisco.com users can log in from this page to access even more content. | http://www.cisco.com/cisco/web/support/index.html |

Feature History for QoS Statistics

This section provides the QoS statistics release history.

| Feature Name | Release | Feature Information |
|----------------|---------|-----------------------------|
| QoS Statistics | 4.0 | This feature was introduced |

