



Show Commands

This chapter describes the Cisco NX-OS quality of service (QoS) **show** commands.

show class-map type control-plane

To display control plane class map information, use the **show class-map type control-plane** command.

show class-map type control-plane [*class-map-name*]

Syntax Description	<i>class-map-name</i>	(Optional) Name of the control plane class map. The name is alphanumeric and case sensitive. The maximum length is 64 characters.
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Command Default	None
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Command Modes	Any command mode
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Command History	Release	Modification
	6.0(2)N1(1)	This command was introduced.

Usage Guidelines	This command does not require a license.
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Examples	This example shows how to display control plane class map information:
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```
switch# show class-map type control-plane

class-map type control-plane match-any copp-system-class-arp
match protocol arp

class-map type control-plane match-any copp-system-class-bgp
match protocol bgp

class-map type control-plane match-any copp-system-class-bridging
match protocol bridging

class-map type control-plane match-any copp-system-class-cdp
match protocol cdp

class-map type control-plane match-any copp-system-class-default
match protocol default

<--Output truncated-->
switch#
```

Related Commands	Command	Description
	class-map type control-plane	Creates or configures a control plane class map.

show class-map type network-qos

To display type network-qos class maps, use the **show class-map type network-qos** command.

show class-map type network-qos [*class-map-name*]

Syntax Description	<i>class-map-name</i>	Name of the class map. The name can be a maximum of 40 alphanumeric characters.
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Command Default	Displays all type network-qos class maps if no class map name is specified.
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Command Modes	Any command mode
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Command History	Release	Modification
	6.0(2)N1(1)	This command was introduced.

Usage Guidelines	If you do not specify the type, the command displays all the class maps configured in the system.
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Examples	This example shows how to display all type network-qos class maps:
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```
switch(config)# show class-map type network-qos
```

```
Type network-qos class-maps
=====

class-map type network-qos s1
  match qos-group 2

class-map type network-qos s2
  match qos-group 3

class-map type network-qos s3
  match qos-group 4

class-map type network-qos s4
  match qos-group 5

class-map type network-qos cu1
  match qos-group 2

class-map type network-qos cu2
  match qos-group 3

class-map type network-qos cu3
  match qos-group 4

class-map type network-qos cu4
```

```

        match qos-group 5

class-map type network-qos new
    match qos-group 2

class-map type network-qos class7
    match qos-group 5

class-map type network-qos class-0
    match qos-group 2

class-map type network-qos ip-based
    match qos-group 5

class-map type network-qos class-1-2
    match qos-group 3

class-map type network-qos class-4-7
    match qos-group 4

class-map type network-qos cos-based
    match qos-group 2

class-map type network-qos class-fcoe
    match qos-group 1

class-map type network-qos class-flood
    match qos-group 2

class-map type network-qos cos-based-3
    match qos-group 3

class-map type network-qos cos-based-4
    match qos-group 4

class-map type network-qos class-default
    match qos-group 0

class-map type network-qos class-multicast

class-map type network-qos class-ip-multicast
    match qos-group 5

switch(config)#

```

Related Commands

Command	Description
class-map	Creates or modifies a class map.

show class-map type qos

To display type qos class maps, use the **show class-map type qos** command.

show class-map type qos [*class-map-name*]

Syntax Description	<i>class-map-name</i>	Named class map. The name <i>class-default</i> is reserved. The name can be a maximum of 40 alphanumeric characters.
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Command Default	Displays all type qos class maps if no class map name is specified.
------------------------	---

Command Modes	Any command mode
----------------------	------------------

Command History	Release	Modification
	6.0(2)N1(1)	This command was introduced.

Examples This example shows how to display all type qos class maps on a switch:

```
switch(config)# show class-map type qos
```

```
Type qos class-maps
=====

class-map type qos s1
  match cos 0

class-map type qos s2
  match protocol ldp
  match ip rtp 2000
  match protocol dhcp
  match protocol arp

class-map type qos s3
  match access-group name mac

class-map type qos s4
  match access-group name ipv4

class-map type qos cp1
  match precedence 4-5
  match cos 0,4
  match dscp 4
  match protocol ldp
  match protocol arp

class-map type qos cp2
  match ip rtp 2000
  match cos 0
```

```
class-map type qos cp3
  match access-group name mac

class-map type qos cp5

class-map type qos cq1
  match protocol ldp
  match precedence 7
  match cos 0

class-map type qos cq2
  match protocol ldp
  match cos 1-2

class-map type qos cq3
  match access-group name mac

class-map type qos cq4
  match access-group name ipv4-1

class-map type qos cq5
  match access-group name ipv6-based

class-map type qos p1.1
  match cos 7

class-map type qos p1.2
  match protocol ldp
  match ip rtp 2000-6001,10000-20000,60000-65535
  match dscp 1
  match protocol dhcp
  match protocol arp
  match precedence 0-7

class-map type qos p1.3
  match access-group name mac

class-map type qos p1.4
  match access-group name ipv4

class-map type qos p2.1
  match cos 0,7

class-map type qos p2.2
  match protocol ldp
  match ip rtp 2000-6000,6002,10000-20000,60000-65535
  match dscp 2
  match protocol dhcp
  match protocol arp
  match precedence 0-7

class-map type qos p2.3
  match access-group name mac

class-map type qos p2.4
  match access-group name ipv4

class-map type qos p3.1
  match cos 0,7

class-map type qos p3.2
  match protocol ldp
  match ip rtp 2000-6000,6003,10000-20000,60000-65535
  match dscp 3
```

```
match protocol dhcp
match protocol arp
match precedence 0-7

class-map type qos p3.3
  match access-group name mac

class-map type qos p3.4
  match access-group name ipv4

class-map type qos p4.1
  match cos 0,7

class-map type qos p4.2
  match protocol ldp
  match ip rtp 2000-6000,6004,10000-20000,60000-65535
  match dscp 4
  match protocol dhcp
  match protocol arp
  match precedence 0-7

class-map type qos p4.3
  match access-group name mac

class-map type qos p4.4
  match access-group name ipv4

class-map type qos p5.1
  match cos 0,7

class-map type qos p5.2
  match protocol ldp
  match ip rtp 2000-6000,6005,10000-20000,60000-65535
  match dscp 5
  match protocol dhcp
  match protocol arp
  match precedence 0-7

class-map type qos p5.3
  match access-group name mac

class-map type qos p5.4
  match access-group name ipv4

class-map type qos p6.1
  match cos 0,7

class-map type qos p6.2
  match protocol ldp
  match ip rtp 2000-6000,6006,10000-20000,60000-65535
  match dscp 6
  match protocol dhcp
  match protocol arp
  match precedence 0-7

class-map type qos p6.3
  match access-group name mac

class-map type qos p6.4
  match access-group name ipv4

class-map type qos p7.1
  match cos 0,7
```

```
class-map type qos p7.2
  match protocol ldp
  match ip rtp 2000-6000,6007,10000-20000,60000-65535
  match dscp 7
  match protocol dhcp
  match protocol arp
  match precedence 0-7

class-map type qos p7.3
  match access-group name mac

class-map type qos p7.4
  match access-group name ipv4

class-map type qos p8.1
  match cos 0,7

class-map type qos p8.2
  match protocol ldp
  match ip rtp 2000-6000,6008,10000-20000,60000-65535
  match dscp 8
  match protocol dhcp
  match protocol arp
  match precedence 0-7

class-map type qos p8.3
  match access-group name mac

class-map type qos p8.4
  match access-group name ipv4

class-map type qos p9.1
  match cos 0,7

class-map type qos p9.2
  match protocol ldp
  match ip rtp 2000-6000,6009,10000-20000,60000-65535
  match dscp 9
  match protocol dhcp
  match protocol arp
  match precedence 0-7

class-map type qos p9.3
  match access-group name mac

class-map type qos p9.4
  match access-group name ipv4

class-map type qos class-0
  match cos 0

class-map type qos class-6
  match cos 6

class-map type qos class-7
  match cos 7

class-map type qos clsas-0

class-map type qos cos-6-7
  match cos 7

class-map type qos ip-based
  match access-group name ip-based
```



```
class-map type qos acl-based
  match access-group name ipPac1

class-map type qos class-1-2
  match cos 1-2

class-map type qos class-4-5
  match cos 4-5

class-map type qos class-4-6
  match cos 5

class-map type qos class-4-7
  match cos 5,7

class-map type qos class-405

class-map type qos cos-based

class-map type qos mac-based
  match access-group name foo

class-map type qos udp-based
  match access-group name ip-based

class-map type qos class-fcoe
  match cos 3

class-map type qos class-flood

class-map type qos class-default
  match any

class-map type qos class-all-flood
  match all flood

class-map type qos class-ip-multicast
  match ip multicast

switch(config)#
```

This example shows how to display a specific class map:

```
switch# show class-map type qos class-4-6
```

```
Type qos class-maps
=====

class-map type qos class-4-6
  match cos 5

switch#
```

This example shows how to display all type qos class maps:

```
switch# show class-map type qos
```

```
Type qos class-maps
=====

class-map type qos match-any class-fcoe
```

■ show class-map type qos

```
        match cos 3

class-map type qos match-any class-default
    match any

class-map type qos match-any class-all-flood
    match all flood

class-map type qos match-any class-ip-multicast
    match ip multicast

switch#
```

Related Commands

Command	Description
class-map	Creates or modifies a class map.

show class-map type queuing

To display type queuing class maps, use the **show class-map type queuing** command.

show class-map type queuing [*class-map-name*]

Syntax Description	<i>class-map-name</i>	Named class map. The name can be a maximum of 40 alphanumeric characters.
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Command Default	Displays all type queuing class maps if no class map name is specified.
------------------------	---

Command Modes	Any command mode
----------------------	------------------

Command History	Release	Modification
	6.0(2)N1(1)	This command was introduced.

Examples This example shows how to display all type queuing class maps on a switch:

```
switch(config)# show class-map type queuing
```

```
Type queuing class-maps
=====

class-map type queuing s1
  match qos-group 2

class-map type queuing s2
  match qos-group 3

class-map type queuing s3
  match qos-group 4

class-map type queuing s4
  match qos-group 5

class-map type queuing cq1
  match qos-group 2

class-map type queuing cq2
  match qos-group 3

class-map type queuing cq3
  match qos-group 4

class-map type queuing cq4
  match qos-group 5

class-map type queuing pq1
```

```

class-map type queuing cqe1
  match qos-group 2

class-map type queuing cqe2
  match qos-group 3

class-map type queuing cqe3
  match qos-group 4

class-map type queuing cqe4
  match qos-group 5

class-map type queuing p1.1
  match qos-group 2

class-map type queuing p1.2
  match qos-group 3

class-map type queuing p1.3
  match qos-group 4

class-map type queuing p1.4
  match qos-group 5

class-map type queuing p2.1
  match qos-group 2

class-map type queuing p2.2
  match qos-group 3

class-map type queuing p2.3
  match qos-group 4

class-map type queuing p2.4
  match qos-group 5

class-map type queuing p3.1
  match qos-group 2

class-map type queuing p3.2
  match qos-group 3

<--Output truncated-->
switch(config)#

```

This example shows how to display all type queuing class maps:

```
switch# show class-map type queuing
```

```

Type queuing class-maps
=====

class-map type queuing class-fcoe
  match qos-group 1

class-map type queuing class-default
  match qos-group 0

class-map type queuing class-all-flood
  match qos-group 2

class-map type queuing class-ip-multicast
  match qos-group 2

```

switch#

Related Commands

Command	Description
class-map	Creates or modifies a class map.

show copp status

To display the Control Plane Policing (CoPP) configuration status, use the **show copp status** command.

show copp status

Syntax Description	This command has no arguments or keywords.
---------------------------	--

Command Default	None
------------------------	------

Command Modes	Any configuration mode
----------------------	------------------------

Command History	Release	Modification
	6.0(2)N1(1)	This command was introduced.

Usage Guidelines	This command does not require a license.
-------------------------	--

Examples	This example shows how to display the CoPP configuration status information:
-----------------	--

```
switch# show copp status
Last Config Operation: class class-default
Last Config Operation Timestamp: 05:06:14 UTC Jan  1 2013
Last Config Operation Status: Success
Policy-map attached to the control-plane: copp-system-policy-default

switch#
```

Related Commands	Command	Description
	clear copp statistics	Clears the CoPP statistics.
	show running-config copp	Displays CoPP configuration information in the running configuration.

show interface flowcontrol

To display the detailed listing of the flow control settings on all interfaces, use the **show interface flowcontrol** command.

show interface flowcontrol [*module number*]

Syntax Description	module <i>number</i>	(Optional) Displays flow control settings on all interfaces on a specified module. The module <i>number</i> range is from 1 to 3.
---------------------------	-----------------------------	---

Command Default	None
------------------------	------

Command Modes	EXEC mode
----------------------	-----------

Command History	Release	Modification
	6.0(2)N1(1)	This command was introduced.

Usage Guidelines You can use this command to display the flow control information for the following interfaces:

- Layer 2 interface
- Layer 3 interface



Note Use the **no switchport** command to configure an interface as a Layer 3 interface, and then use the **flowcontrol** command to configure flow control for the interface.

Examples This example shows how to display the flow control settings on all interfaces on a switch:

```
switch# show interface flowcontrol
```

Port	Send FlowControl admin	oper	Receive FlowControl admin	oper	RxPause	TxPause
Eth1/1	off	off	off	off	0	0
Eth1/2	off	off	off	off	0	0
Eth1/3	off	off	off	off	0	0
Eth1/4	off	off	off	off	0	0
Eth1/5	off	off	off	off	0	0
Eth1/6	off	off	off	off	0	0
Eth1/7	off	off	off	off	0	0

■ show interface flowcontrol

```
Eth1/8      off      off      off      off      0          0
Eth1/9      off      off      off      off      0          0
Eth1/10     off      off      off      off      0          0
Eth1/11     off      off      off      off      0          0
--More--
switch#
```


show hardware profile latency monitor

To display switch latency statistics for egress and ingress port pairs, use the **show hardware profile latency monitor** command.

show hardware profile latency monitor interface ethernet egress-interface-slot/port interface ethernet ingress-interface-slot/port

Syntax Description		
	interface	Displays the statistics for the specified interface.
	ethernet <i>egress-interface-slot/port</i>	Specifies a single egress Ethernet interface and its slot number and port number. The <i>slot</i> number is from 1 to 255. The <i>port</i> number is from 1 to 128.
	ethernet <i>ingress-interface-slot/port</i>	Specifies a single ingress Ethernet interface and its slot number and port number. The <i>slot</i> number is from 1 to 255. The <i>port</i> number is from 1 to 128.

Command Default	None
------------------------	------

Command Modes	Any configuration mode
----------------------	------------------------

Command History	Release	Modification
	7.0(0)N1(1)	This command was introduced.

Usage Guidelines	This command does not require a license.
-------------------------	--

Examples The following example shows switch latency monitoring configuration and statistics information when instantaneous mode monitoring is enabled:

```
switch# show hardware profile latency monitor interface ethernet 1/1 interface ethernet
1/2-3
```

Egress Port: Ethernet1/1 Ingress Port: Ethernet1/2 Mode: Inst			
	Minimum	Maximum	Average
cnt	0	0	0

Egress Port: Ethernet1/1 Ingress Port: Ethernet1/3 Mode: Inst			
	Minimum	Maximum	Average
cnt	0	0	0

The following example shows switch latency monitoring configuration and statistics information when linear histogram mode monitoring is enabled:

```
switch# show hardware profile latency monitor interface ethernet 1/1 interface ethernet 1/2
```

Egress Port: Ethernet1/1 Ingress Port: Ethernet1/2 Mode: Linear Histogram				

Range	800-840	840-880	880-920	920-960

cnt	0	0	0	0

The following example shows switch latency monitoring configuration and statistics information when exponential histogram mode monitoring is enabled:

```
switch# show hardware profile latency monitor interface ethernet 1/1 interface ethernet 1/3
```

Egress Port: Ethernet1/1 Ingress Port: Ethernet1/3 Mode: Exp Histogram				

Range	840-880	880-960	960-1120	1120-1440

cnt	0	0	0	0

The following example shows switch latency monitoring configuration and statistics information when custom histogram mode monitoring is enabled:

```
switch# show hardware profile latency monitor interface ethernet 1/1 interface ethernet 1/5
```

Egress Port: Ethernet1/1 Ingress Port: Ethernet1/5 Mode: Custom Histogram			

Range	840 <= Latency < 2000		840 > Latency >= 2000

cnt	0		0

The following example shows switch latency monitoring configuration and statistics information when a range of ingress interfaces are enabled:

```
switch# show hardware profile latency monitor interface ethernet 1/1 interface ethernet 1/2-5
```

Egress Port: Ethernet1/1 Ingress Port: Ethernet1/2 Mode: Inst				

	Minimum	Maximum	Average	

cnt	0	0	0	

Egress Port: Ethernet1/1 Ingress Port: Ethernet1/3 Mode: Inst				

	Minimum	Maximum	Average	

cnt	0	0	0	

Egress Port: Ethernet1/1 Ingress Port: Ethernet1/4 Mode: Inst				

	Minimum	Maximum	Average	

cnt	0	0	0	

Egress Port: Ethernet1/1 Ingress Port: Ethernet1/5 Mode: Exp Histogram				

Range	48-96	96-129	129-384	384-768
cnt	0	0	0	0

The following example shows switch latency monitoring configuration and statistics information when a range of ingress and egress interfaces are enabled:

```
switch# show hardware profile latency monitor interface ethernet 1/1-2 interface ethernet 1/2-3
```

Egress Port: Ethernet1/1 Ingress Port: Ethernet1/2 Mode: Inst				
	Minimum	Maximum	Average	
cnt	0	0	0	0
Egress Port: Ethernet1/1 Ingress Port: Ethernet1/3 Mode: Inst				
	Minimum	Maximum	Average	
cnt	0	0	0	0
Egress Port: Ethernet1/2 Ingress Port: Ethernet1/2 Mode: Inst				
	Minimum	Maximum	Average	
cnt	0	0	0	0
Egress Port: Ethernet1/2 Ingress Port: Ethernet1/3 Mode: Inst				
	Minimum	Maximum	Average	
cnt	0	0	0	0

Related Commands

Command	Description
clear hardware profile latency monitor	Clears switch latency monitoring statistics.
hardware profile latency monitor base	Specifies the histogram base value to construct switch latency monitoring histograms.
packet latency interface	Enables switch latency histogram monitoring.
show hardware profile latency monitor	Displays switch latency statistics for egress and ingress port pairs.

show hardware profile tcam feature qos

To display the the limits of the QoS TCAMs, use the **show hardware profile tcam feature-qos** command.

show hardware profile tcam feature qos *tcam-size*

Syntax Description	<i>tcam-size</i> Interface QoS TCAM limit. The <i>tcam-size</i> can be from 7- 446 entries.	
Command Default	None	
Command Modes	Global configuration mode	
Command History	Release	Modification
	6.0(2)N1(1)	This command was introduced.
Usage Guidelines	No interface policy entry should be present after the interface_qos limit in the QoS region of any TCAM.	
Examples	This example shows how to set the interface QoS TCAM limit to 20 entries: <pre> switch(config)# configure terminal switch(config)# hardware profile tcam feature interface-qos limit 20 switch(config)# show hardware profile tcam feature qos Feature Limit ----- Interface 20 vlan-qos + global-qos 428 switch(config)# copy running-config startup-config </pre>	
Related Commands	Command	Description
	hardware profile tcam feature interface-qos limit	Configures the QoS TCAM limit

show interface burst-counters

To display the micro-burst counter information for a specified interface or all interfaces, use the **show interface burst-counters** command.

show interface [*ethernet slot/port*] **burst-counters**

Syntax Description	ethernet slot/port	(Optional) Specifies a single Ethernet interface and its slot number and port number. The <i>slot</i> number is from 1 to 255. The <i>port</i> number is from 1 to 128.
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Command Default	None
------------------------	------

Command Modes	Any command mode
----------------------	------------------

Command History	Release	Modification
	7.0(0)N1(1)	This command was introduced.

Usage Guidelines	When the burst threshold command is used to enable micro-burst detection on a port, any activity that occurs on the port and that meets the specified criteria, is identified as a micro-burst and the appropriate burst counters are incremented. To display the burst counter information, you use the show burst-counters command. If you do not specify an interface, the show interface burst-counters command will display the micro-burst counter information for all interfaces.
-------------------------	---

Examples	This example shows how to display the micro-burst counter details for a specified interface:
-----------------	--

```
switch# show interface ethernet 1/1 burst-counters
-----
| Interface | Ingress Bursts | Egress Bursts | Total Bursts |
-----
| Ethernet1/1 | 0 | 0 | 0 |
switch#
```

This example shows how to display the micro-burst counter details for all interfaces where micro-burst monitoring is configured. In this example, micro-burst counters are configured on the Ethernet 1/1 and Ethernet 1/5 interfaces:

```
switch# show interface burst-counters
switch# show interface burst-counters
-----
| Interface | Ingress Bursts | Egress Bursts | Total Bursts |
-----
| Ethernet1/1 | N/A | 50 | 50 |
| Ethernet1/5 | 50 | N/A | 50 |
```

Related Commands

Command	Description
burst maximum	Configures the maximum number of bursts allowed within a time interval before generating an interrupt.
burst threshold	Configures micro-burst threshold values for an interface.
clear burst-counters	Clears burst counter values.

show interface priority-flow-control

To display the priority flow control details for a specified interface, use the **show interface priority-flow-control** command.

show interface [*ethernet slot[/QSF module/port]*] **priority-flow-control**

Syntax Description	ethernet <i>slot/QSF module/port</i>	(Optional) Specifies the Ethernet interface and its slot number and port number. The <i>slot</i> number is from 1 to 255. The <i>QSF module</i> number is from 1 to 199. The <i>port</i> number is from 1 to 128.
---------------------------	--	---

Command Default	None
------------------------	------

Command Modes	Any command mode
----------------------	------------------

Command History	Release	Modification
	6.0(2)N1(1)	This command was introduced.

Usage Guidelines	You can use this command to display the priority flow control information for the following interfaces:
	- Layer 2 interface - Layer 3 interface



Note Use the **no switchport** command to configure an interface as a Layer 3 interface, and then use the **flowcontrol** command to configure flow control for the interface.

If you do not specify an interface, the **show interface priority-flow-control** command will display the priority flow control information for all interfaces (Layer 2, Layer 3).

Examples	This example shows how to display the priority flow control details for a specified interface:
	<pre>switch# show interface ethernet 1/2 priority-flow-control ===== Port Mode Oper(VL bmap) RxPPP TxPPP ===== Ethernet1/2 Auto On (9) 4088353 1890 switch#</pre>

The interface specified is Ethernet 1/2, the PFC mode is set to negotiate PFC capability, the operation is on, and packets transmitted is 1890.

This example shows how to display the priority flow control information for a specified Layer 3 interface:

show interface priority-flow-control

```

switch# show interface ethernet 1/5 priority-flow-control
=====
Port                Mode Oper (VL bmap)  RxPPP    TxPPP
=====
Ethernet1/5         On   On   (0)           0         0
switch#

```

This example shows how to display the priority flow control information for all interfaces:

```

switch# show interface priority-flow-control
=====
Port                Mode Oper (VL bmap)  RxPPP    TxPPP
=====

Ethernet1/1         Auto Off           0         0
Ethernet1/2         Auto Off           0         0
Ethernet1/3         Auto Off           0         0
Ethernet1/4         Auto Off           0         0
Ethernet1/5         On   On   (0)           0         0
Ethernet1/6         Auto Off           0         0
Ethernet1/7         Auto Off           0         0
Ethernet1/8         Auto Off           0         0
Ethernet1/9         Auto Off           0         0
Ethernet1/10        Auto Off           0         0
Ethernet1/11        Auto Off           0         0
Ethernet1/12        Auto Off           0         0
Ethernet1/13        Auto Off           0         0
Ethernet1/14        Auto Off           0         0
Ethernet1/15        Auto Off           0         0
Ethernet1/16        Auto Off           0         0
Ethernet1/17        Auto Off           0         0
Ethernet1/18        Auto Off           0         0
Ethernet1/19        Auto Off           0         0
Ethernet1/20        Auto Off           0         0
Ethernet1/21        Auto Off           0         0
Ethernet1/22        Auto Off           0         0
Ethernet1/23        Auto Off           0         0
Ethernet1/24        Auto Off           0         0
Ethernet1/25        Auto Off           0         0
Ethernet1/26        Auto Off           0         0
Ethernet1/27        Auto Off           0         0
Ethernet1/28        Auto Off           0         0
Ethernet1/29        Auto Off           0         0
Ethernet1/30        Auto Off           0         0
Ethernet1/31        Auto Off           0         0
Ethernet1/32        Auto Off           0         0
Ethernet3/1         Auto Off           0         0
Ethernet3/2         Auto Off           0         0
Ethernet3/3         Auto Off           0         0
Ethernet3/4         Auto Off           0         0
Ethernet3/5         Auto Off           0         0
Ethernet3/6         Auto Off           0         0
Ethernet3/7         Auto Off           0         0
Ethernet3/8         Auto Off           0         0
Ethernet3/9         Auto Off           0         0
Ethernet3/10        Auto Off           0         0
Ethernet3/11        Auto Off           0         0
Ethernet3/12        Auto Off           0         0
Ethernet3/13        Auto Off           0         0
Ethernet3/14        Auto Off           0         0
Ethernet3/15        Auto Off           0         0
Ethernet3/16        Auto Off           0         0
Ethernet3/17        Auto Off           0         0

```



```

Ethernet3/18      Auto Off      0      0
Ethernet3/19      Auto Off      0      0
Ethernet3/20      Auto Off      0      0
Ethernet3/21      Auto Off      0      0
Ethernet3/22      Auto Off      0      0
Ethernet3/23      Auto Off      0      0
Ethernet3/24      Auto Off      0      0
Ethernet3/25      Auto Off      0      0
Ethernet3/26      Auto Off      0      0
Ethernet3/27      Auto Off      0      0
Ethernet3/28      Auto Off      0      0
Ethernet3/29      Auto Off      0      0
Ethernet3/30      Auto Off      0      0
Ethernet3/31      Auto Off      0      0
Ethernet3/32      Auto Off      0      0
Ethernet100/1/1   Auto Off      0      0
Ethernet100/1/2   Auto Off      0      0
Ethernet100/1/3   Auto Off      0      0
Ethernet100/1/4   Auto Off      0      0
Ethernet100/1/5   Auto Off      0      0
Ethernet100/1/6   Auto Off      0      0
Ethernet100/1/7   Auto Off      0      0
Ethernet100/1/8   Auto Off      0      0
Ethernet100/1/9   Auto Off      0      0
Ethernet100/1/10  Auto Off      0      0
Ethernet100/1/11  Auto Off      0      0
Ethernet100/1/12  Auto Off      0      0
Ethernet100/1/13  Auto Off      0      0
Ethernet100/1/14  Auto Off      0      0
Ethernet100/1/15  Auto Off      0      0
Ethernet100/1/16  Auto Off      0      0
switch#

```

Related Commands

Command	Description
no switchport	Configures a Layer 3 routed interface.
priority-flow-control	Sets the PFC mode for the selected interface.

show interface untagged-cos

To display the untagged class of service (CoS) values for a specified interface, use the **show interface untagged-cos** command.

show interface untagged-cos [**module** *module_no*]

Syntax Description

module	(Optional) Displays the interfaces on this module of the switch chassis.
module_no	Module number in the switch chassis. The range is from 1 to 18.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
6.0(2)N1(1)	This command was introduced.

Examples

This example shows how to display the untagged CoS values for interfaces:

```
switch# show interface untagged-cos
=====

Interface      Untagged-CoS
=====

port-channel1
port-channel13  2
port-channel15  5
port-channel16
port-channel12
port-channel115
port-channel120
port-channel124
port-channel125
port-channel133
port-channel141
port-channel144
--More--
switch#
```

This example shows how to display the untagged CoS values for all interfaces (Layer 2, Layer 3):

```
switch# show interface untagged-cos
S3(config-if)# show int untagged-cos
=====

Interface      Untagged-CoS
=====

port-channel100
```

```

port-channel127
port-channel128
Ethernet1/1
Ethernet1/2
Ethernet1/3
Ethernet1/4
Ethernet1/5 3
Ethernet1/6
Ethernet1/7
Ethernet1/8
Ethernet1/9
Ethernet1/10
Ethernet1/11
Ethernet1/12
:
<--snip-->
Ethernet3/31
Ethernet3/32
Ethernet100/1/1
Ethernet100/1/2
<--Output truncated-->
switch#

```

Related Commands

Command	Description
untagged cos	Sets a CoS value for untagged Ethernet frames.

show policy-map

To display policy maps, use the **show policy-map** command.

show policy-map [**type** {**network-qos** | **qos** | **queuing**}] [*policy-map-name*]

Syntax Description	type	(Optional) Specifies the component type to display.
	network-qos	Displays policy maps of type network-qos.
	qos	Displays policy maps of type qos only.
	queuing	Displays policy maps of type queuing only.
	<i>policy-map-name</i>	(Optional) Named policy map. The name can be a maximum of 40 alphanumeric characters.

Command Default	None
------------------------	------

Command Modes	Any command mode
----------------------	------------------

Command History	Release	Modification
	6.0(2)N1(1)	This command was introduced.

Usage Guidelines	When you enter the show policy-map command with no arguments or keywords, the system also displays the Control Plane Policing (CoPP) information.
-------------------------	--

Examples	This example shows how to display a named network-qos policy map:
-----------------	---

```
switch# show policy-map type network-qos my_pnq
```

```
Type network-qos policy-maps
=====

policy-map type network-qos my_pnq
  class type network-qos cl_nq
    multicast-optimize
    queue-limit 20480 bytes
    mtu 1500
  class type network-qos class-fcoe
    pause no-drop
    mtu 2158
  class type network-qos class-default
    mtu 1500
switch#
```

Related Commands	Command	Description
	policy-map	Creates or modifies a policy map.

show policy-map interface

To display the service policy maps configured on the interfaces, use the **show policy-map interface** command.

show policy-map interface [**ethernet** *slot*[/*QSFP-module*]/*port* | **port-channel** *channel-number*] [**input** | **output**] [**type** {**qos** | **queuing**}]

Syntax Description	
ethernet	(Optional) Displays policy maps assigned to Ethernet interfaces.
<i>slot</i> [/ <i>QSFP-module</i>]/ <i>port</i>	Ethernet interface slot number and port number. The <i>slot</i> number is from 1 to 255. The <i>QSFP-module</i> number is from 1 to 199. The <i>port</i> number is from 1 to 128.
port-channel	(Optional) Displays policy maps assigned to EtherChannels.
<i>channel-number</i>	EtherChannel number. The number is from 1 to 4096.
input	(Optional) Displays policy maps assigned to input traffic only.
output	(Optional) Displays policy maps assigned to output traffic only.
type	(Optional) Specifies the component type to display.
qos	Displays policy maps of type qos only.
queuing	Displays policy maps of type queuing only.

Command Default None

Command Modes Any command mode

Command History	Release	Modification
	6.0(2)N1(1)	This command was introduced.

Usage Guidelines Statistics are on by default.

Examples This example shows how to display policy maps assigned to a specified interface:

```
switch(config)# show policy-map interface ethernet 2/10
```

This example shows how to display QoS policy maps assigned to a specified interface:

```
switch# show policy-map interface ethernet 3/1 type qos
```

```
Global statistics status : disabled
```

```
Ethernet3/1
```

```
Service-policy (qos) input: s
policy statistics status: disabled
```

```
Class-map (qos):    s1 (match-any)
  Match: cos 0
  set qos-group 2

Class-map (qos):    class-1-2 (match-any)
  Match: cos 1-2
  set qos-group 3

Class-map (qos):    class-4-5 (match-any)
  Match: cos 4-5
  set qos-group 4

Class-map (qos):    class-6 (match-any)
  Match: cos 6
  set qos-group 5

Class-map (qos):    class-fcoe (match-any)
  Match: cos 3
  set qos-group 1

Class-map (qos):    class-default (match-any)
  Match: any
  set qos-group 0
```

switch#

This example shows how to display the policy maps assigned to the output traffic of a specified interface:

```
switch# show policy-map interface ethernet 3/1 output
```

```
Global statistics status :    disabled
```

```
Ethernet3/1
```

```
Service-policy (queuing) output:    pqe1
  policy statistics status:    disabled

Class-map (queuing):    cqe1 (match-any)
  Match: qos-group 2
  bandwidth percent 20

Class-map (queuing):    cqe2 (match-any)
  Match: qos-group 3
  priority

Class-map (queuing):    cqe3 (match-any)
  Match: qos-group 4
  bandwidth percent 20

Class-map (queuing):    cqe4 (match-any)
  Match: qos-group 5
  bandwidth percent 40

Class-map (queuing):    class-fcoe (match-any)
  Match: qos-group 1
  bandwidth percent 10

Class-map (queuing):    class-default (match-any)
  Match: qos-group 0
  bandwidth percent 5
```

switch#

This example shows how to display the policy maps assigned to the input traffic of a virtual Ethernet interface:

```
switch# show policy-map interface vethernet 10 input type queuing
```

```
Global statistics status :    disabled
```

```
Vethernet10
```

```
Service-policy (queuing) input:  p2
policy statistics status:    disabled
```

```
Class-map (queuing):  class-default (match-any)
  Match: qos-group 0
  bandwidth percent 50
  shape 30 kbps
```

```
switch#
```

Related Commands

Command	Description
policy-map	Creates or modifies a policy map.
service-policy (virtual Ethernet interface)	Attaches a policy map to a virtual Ethernet interface.

show policy-map interface brief

To display policy maps applied to interfaces in a brief format, use the **show policy-map interface brief** command.

show policy-map interface brief

Syntax Description This command has no arguments or keywords.

Command Default None

Command Modes Any command mode

Command History	Release	Modification
	6.0(2)N1(1)	This command was introduced.

Examples This example shows how to display assigned policy maps in a brief format:

```
switch(config)# show policy-map interface brief
```

```

Interface      [Status]:INP QOS      INP QUE      OUT QUE
=====
port-channel11 [Active]:p1           pqe1         pqe1
port-channel13 [Active]:s            pqe1         pqe1
port-channel15 [Active]:s            pqe1         pqe1
port-channel16 [Active]:s            pqe1         pqe1
port-channel12 [Active]:p12    p12-in       p12-out
port-channel15 [Active]:s            pqe1         pqe1
port-channel20 [Active]:s            pqe1         pqe1
port-channel24 [Active]:p4            pqe1         pqe1
port-channel25 [Active]:p4            pqe1         pqe1
port-channel33 [Active]:s            pqe1         pqe1
port-channel41 [Active]:s            pqe1         pqe1
port-channel44 [Active]:s            pqe1         pqe1
port-channel48 [Active]:s            pqe1         pqe1
port-channel101 [Active]:s           pqe1         pqe1
port-channel102 [Active]:p4
port-channel103 [Active]:p4
port-channel104 [Active]:p4
port-channel105 [Active]:p4
port-channel106 [Active]:p4
port-channel107 [Active]:p4
--More--
switch(config)#
```

This example shows how to display assigned policy maps in a brief format on a switch that runs Cisco NX-OS Release 5.0(3)N1(1):

```
switch# show policy-map interface brief
S3(config-if)# show policy-map interface brief
```

show policy-map interface brief

```

      Interface/VLAN [Status]:INP QOS      OUT QOS      INP QUE      OUT QUE
=====
port-channel100 [Active]:default-in-po      default-in-po default-out-p
port-channel127 [Active]:default-in-po      default-in-po default-out-p
port-channel128 [Active]:default-in-po      default-in-po default-out-p
Ethernet1/1      [Active]:default-in-po      default-in-po default-out-p
Ethernet1/2      [Active]:default-in-po      default-in-po default-out-p
Ethernet1/3      [Active]:default-in-po      default-in-po default-out-p
Ethernet1/4      [Active]:default-in-po      default-in-po default-out-p
Ethernet1/5      [Active]:default-in-po      default-in-po default-out-p
Ethernet1/6      [Active]:default-in-po      default-in-po default-out-p
:
<Snip>
:
Ethernet3/31      [Active]:default-in-po      default-in-po default-out-p
Ethernet3/32      [Active]:default-in-po      default-in-po default-out-p
Ethernet100/1/1   [Active]:default-in-po      default-in-po default-out-p
Ethernet100/1/2   [Active]:default-in-po      default-in-po default-out-p
Ethernet100/1/3   [Active]:default-in-po      default-in-po default-out-p
<--Output truncated-->
switch#

```

Related Commands

Command	Description
policy-map	Creates or modifies a policy map.
show policy-map	Displays policy maps.

show policy-map interface control-plane

To display the control-plane policy maps applied to interfaces, use the **show policy-map interface control-plane** command.

show policy-map interface control-plane

Syntax Description	This command has no arguments or keywords.
---------------------------	--

Command Default	None
------------------------	------

Command Modes	Any command mode
----------------------	------------------

Command History	Release	Modification
	6.0(2)N1(1)	This command was introduced.

Examples	This example shows how to display assigned control-plane policy maps:
-----------------	---

```
switch# show policy-map interface control-plane
control Plane

service-policy input: copp-system-policy-default

class-map copp-system-class-igmp (match-any)
  match protocol igmp
  police cir 1024 kbps , bc 65535 bytes
    conformed 0 bytes; action: transmit
    violated 0 bytes; action: drop

class-map copp-system-class-pim-hello (match-any)
  match protocol pim
  police cir 1024 kbps , bc 4800000 bytes
    conformed 0 bytes; action: transmit
    violated 0 bytes; action: drop

class-map copp-system-class-bridging (match-any)
  match protocol bridging
  police cir 20000 kbps , bc 4800000 bytes
    conformed 0 bytes; action: transmit
    violated 0 bytes; action: drop

class-map copp-system-class-arp (match-any)
  match protocol arp
<--Output truncated-->
switch(config)#
```

 show policy-map interface control-plane

Related Commands	Command	Description
	policy-map	Creates or modifies a policy map.
	show policy-map	Displays policy maps.

show policy-map system

To display all active policy maps in the system, use the **show policy-map system** command.

show policy-map system [**type** { **network-qos** | **qos** [**input**] | **queuing** [**input** | **output**] }]

Syntax Description	type	(Optional) Specifies the component type to display.
	network-qos	Displays policy maps of type network-qos only.
	qos	Displays policy maps of type qos only.
	input	(Optional) Displays policy maps assigned to input traffic.
	queuing	Displays policy maps of type queuing only.
	output	(Optional) Displays policy maps assigned to output traffic.

Command Default	All policy maps
------------------------	-----------------

Command Modes	EXEC mode
----------------------	-----------

Command History	Release	Modification
	6.0(2)N1(1)	This command was introduced.

Usage Guidelines	If you do not specify a policy map type and name, the system displays all the active policy maps in the system.
-------------------------	---

Examples	This example shows how to display all active policy maps in the system:
-----------------	---

```
switch# show policy-map system
```

```
Type network-qos policy-maps
=====

policy-map type network-qos s
  class type network-qos s2      match qos-group 3

    mtu 4000
  class type network-qos s1      match qos-group 2

    mtu 5000
    set cos 0
    multicast-optimize
    pause no-drop
  class type network-qos s3      match qos-group 4

    mtu 9216
  class type network-qos s4      match qos-group 5
```

```

    mtu 9216
class type network-qos class-fcoe      match qos-group 1

    pause no-drop
    mtu 2158
class type network-qos class-default    match qos-group 0

    mtu 1500

Service-policy (qos) input:    s
policy statistics status:     disabled

Class-map (qos):    s1 (match-any)
Match: cos 0
set qos-group 2

Class-map (qos):    class-1-2 (match-any)
Match: cos 1-2
set qos-group 3

Class-map (qos):    class-4-5 (match-any)
Match: cos 4-5
set qos-group 4

Class-map (qos):    class-6 (match-any)
Match: cos 6
set qos-group 5

Class-map (qos):    class-fcoe (match-any)
Match: cos 3
set qos-group 1

Class-map (qos):    class-default (match-any)
Match: any
set qos-group 0

Service-policy (queuing) input:    pqe1
policy statistics status:     disabled

Class-map (queuing):    cqe1 (match-any)
Match: qos-group 2
bandwidth percent 20

Class-map (queuing):    cqe2 (match-any)
Match: qos-group 3
priority

Class-map (queuing):    cqe3 (match-any)
Match: qos-group 4
bandwidth percent 20

Class-map (queuing):    cqe4 (match-any)
Match: qos-group 5
bandwidth percent 40

Class-map (queuing):    class-fcoe (match-any)
Match: qos-group 1
bandwidth percent 10

Class-map (queuing):    class-default (match-any)
Match: qos-group 0
bandwidth percent 5

```

```
Service-policy (queuing) output:  pqe1
policy statistics status:  disabled

Class-map (queuing):  cqe1 (match-any)
  Match: qos-group 2
  bandwidth percent 20

Class-map (queuing):  cqe2 (match-any)
  Match: qos-group 3
  priority

Class-map (queuing):  cqe3 (match-any)
  Match: qos-group 4
  bandwidth percent 20

Class-map (queuing):  cqe4 (match-any)
  Match: qos-group 5
  bandwidth percent 40

Class-map (queuing):  class-fcoe (match-any)
  Match: qos-group 1
  bandwidth percent 10

Class-map (queuing):  class-default (match-any)
  Match: qos-group 0
  bandwidth percent 5
```

switch#

This example shows how to display active network-qos policy maps in the system:

switch# **show policy-map system type network-qos**

```
Type network-qos policy-maps
=====

policy-map type network-qos s
  class type network-qos s2      match qos-group 3

    mtu 4000
  class type network-qos s1      match qos-group 2

    mtu 5000
    set cos 0
    multicast-optimize
    pause no-drop
  class type network-qos s3      match qos-group 4

    mtu 9216
  class type network-qos s4      match qos-group 5

    mtu 9216
  class type network-qos class-fcoe      match qos-group 1

    pause no-drop
    mtu 2158
  class type network-qos class-default      match qos-group 0

    mtu 1500
switch#
```

 show policy-map system**Related Commands**

Command	Description
show policy-map	Displays all policy maps.

show policy-map type control-plane

To display control plane policy map information, use the **show policy-map type control-plane** command.

show policy-map type control-plane [**expand**] [**name** *policy-map-name*]

Syntax Description	expand	(Optional) Displays expanded control plane policy map information.
	name <i>policy-map-name</i>	(Optional) Specifies the name of the control plane policy map. The name is case sensitive and can be a maximum of 64 alphanumeric characters.

Command Default	None
-----------------	------

Command Modes	Any command mode
---------------	------------------

Command History	Release	Modification
	6.0(2)N1(1)	This command was introduced.

Usage Guidelines	This command does not require a license.
------------------	--

Examples This example shows how to display control plane policy map information:

```
switch# show policy-map type control-plane

policy-map type control-plane copp-system-policy-customized
  class copp-system-class-igmp
    police cir 1024 kbps bc 65535 bytes
  class copp-system-class-pim-hello
    police cir 1024 kbps bc 4800000 bytes
  class copp-system-class-bridging
    police cir 20000 kbps bc 4800000 bytes
  class copp-system-class-arp
    police cir 1024 kbps bc 3600000 bytes
  class copp-system-class-dhcp
    police cir 1024 kbps bc 4800000 bytes
  class copp-system-class-mgmt
    police cir 12000 kbps bc 4800000 bytes
  class copp-system-class-lacp
    police cir 1024 kbps bc 4800000 bytes
  class copp-system-class-lldp
    police cir 2048 kbps bc 4800000 bytes
  class copp-system-class-udld
    police cir 2048 kbps bc 4800000 bytes
<--Output truncated-->
switch#
```

This example shows how to display control plane policy map information in expanded format:

 show policy-map type control-plane

```
switch# show policy-map type control-plane expand
```

Related Commands

Command	Description
policy-map type control-plane	Creates or configures a control plane policy map.

show policy-map vlan

To display VLAN policy maps, use the **show policy-map vlan** command.

show policy-map vlan [*vlan-number*]

Syntax Description	<i>vlan-number</i>	Displays the QoS policies configured on the specified VLAN.
Command Default	None	
Command Modes	Any command mode	
Command History	Release	Modification
	6.0(2)N1(1)	This command was introduced.

Usage Guidelines You must configure the interface QoS limit and policy map before using the **show policy-map vlan** command. The TCAM must have enough free entries to configure the service policy on the VLAN.

Examples This example shows how to display the QoS policies configured on the specified VLAN:

```
switch# show policy-map vlan 101

Service-policy (qos) input: vpq1
=====

policy status statistics: disabled
  class-map (qos): vcq2 (match-any)
    match: cos 2
    match: precedence 1
    set cos-group 2
    set prec 2

  class-map (qos): vcq4 (match-any)
    match: access-group ipacl1-vq
    match: prec 7
    set cos-group 4

  class-map (qos): vcq4 (match-any)
    match: cos 1
    set cos-group 3

  class-map (qos): vcq4 (match-any)
    match: any
    set cos-group 0
switch#
```

 show policy-map vlan**Related Commands**

Command	Description
policy-map	Creates or modifies a policy map.

show queuing interface

To display the queuing information on interfaces, use the **show queuing interface** command.

show queuing interface [**ethernet** *slot*[/*QSFP-module*]/*port*]

Syntax Description	ethernet	(Optional) Specifies that queuing information to be displayed for an Ethernet interface.
	<i>slot</i> [/ <i>QSFP-module</i>]/ <i>port</i>]	(Optional) The <i>slot</i> number is from 1 to 255. The <i>QSFP-module</i> number is from 1 to 199. The <i>port</i> number is from 1 to 128.
Command Default	Displays the queuing information for all interfaces.	
Command Modes	EXEC mode	
Command History	Release	Modification
	6.0(2)N1(1)	This command was introduced.

Examples

This example shows how to display the queuing information for all interfaces:

```
switch# show queuing interface
Ethernet1/1 queuing information:
  TX Queuing
    qos-group sched-type oper-bandwidth
      0      WRR          100
      1      WRR          0
      2      WRR          0
      3      WRR          0

  RX Queuing
    qos-group 0
    q-size: 100160, HW MTU: 1500 (1500 configured)
    drop-type: drop, xon: 0, xoff: 0
    Statistics:
      Pkts received over the port : 0
      Ucast pkts sent to the cross-bar : 0
      Mcast pkts sent to the cross-bar : 0
      Ucast pkts received from the cross-bar : 0
      Pkts sent to the port : 150
      Pkts discarded on ingress : 0
      Per-priority-pause status : Rx (Inactive), Tx (Inactive)

    qos-group 1
    q-size: 100160, HW MTU: 1500 (1500 configured)
    drop-type: drop, xon: 0, xoff: 0
    Statistics:
      Pkts received over the port : 0
      Ucast pkts sent to the cross-bar : 0
      Mcast pkts sent to the cross-bar : 0
      Ucast pkts received from the cross-bar : 0
```

```

        Pkts sent to the port : 0
        Pkts discarded on ingress : 0
        Per-priority-pause status : Rx (Inactive), Tx (Inactive)

qos-group 2
q-size: 100160, HW MTU: 1500 (1500 configured)
drop-type: drop, xon: 0, xoff: 0
Statistics:
    Pkts received over the port : 0
    Ucast pkts sent to the cross-bar : 0
    Mcast pkts sent to the cross-bar : 0
    Ucast pkts received from the cross-bar : 0
    Pkts sent to the port : 0
    Pkts discarded on ingress : 0
    Per-priority-pause status : Rx (Inactive), Tx (Inactive)

qos-group 3
q-size: 100160, HW MTU: 1500 (1500 configured)
drop-type: drop, xon: 0, xoff: 0
Statistics:
    Pkts received over the port : 0
    Ucast pkts sent to the cross-bar : 0
    Mcast pkts sent to the cross-bar : 0
    Ucast pkts received from the cross-bar : 0
    Pkts sent to the port : 0
    Pkts discarded on ingress : 0
    Per-priority-pause status : Rx (Inactive), Tx (Inactive)
switch#

```

This example shows how to display the queuing information on Ethernet interface 1/2:

```
switch# show queuing interface ethernet 1/2
```

Ethernet1/2 queuing information:

TX Queuing

qos-group	sched-type	oper-bandwidth
0	WRR	73
1	WRR	0
2	WRR	1
3	WRR	6
4	WRR	20
5	priority	0

RX Queuing

```

qos-group 0
q-size: 25600, HW MTU: 9280 (9216 configured)
drop-type: drop, xon: 0, xoff: 160
Statistics:
    Pkts received over the port : 0
    Ucast pkts sent to the cross-bar : 0
    Mcast pkts sent to the cross-bar : 0
    Ucast pkts received from the cross-bar : 1851526994
    Pkts sent to the port : 1851527000
    Pkts discarded on ingress : 0
    Per-priority-pause status : Rx (Inactive), Tx (Inactive)

```

```

qos-group 1
q-size: 76800, HW MTU: 2240 (2158 configured)
drop-type: no-drop, xon: 128, xoff: 240
Statistics:
    Pkts received over the port : 0
    Ucast pkts sent to the cross-bar : 0
    Mcast pkts sent to the cross-bar : 0
    Ucast pkts received from the cross-bar : 0

```

```

Pkts sent to the port                : 0
Pkts discarded on ingress             : 0
Per-priority-pause status            : Rx (Inactive), Tx (Inactive)

qos-group 2
q-size: 20480, HW MTU: 9280 (9216 configured)
drop-type: drop, xon: 0, xoff: 128
Statistics:
  Pkts received over the port         : 0
  Ucast pkts sent to the cross-bar    : 0
  Mcast pkts sent to the cross-bar    : 0
  Ucast pkts received from the cross-bar : 0
  Pkts sent to the port               : 0
  Pkts discarded on ingress           : 0
  Per-priority-pause status           : Rx (Inactive), Tx (Inactive)

--More--
switch#

```

Table 1 describes the significant fields shown in the display.

Table 1 *show queuing interface Field Descriptions*

Field	Description
Ethernet ...	Ethernet interface information.
qoS-group	Information about QoS groups configured on the switch.
sched-type	Type of schedule.
WRR	Weighted round robin(WRR). Queue eight for scheduling.
Priority	Priority of the queue.
q-size	Queue size.
drop-type	Queue drop type can be either drop or no-drop.
MTU	Maximum transmit unit (MTU) for the queue.
Xon	Transmission on at this threshold.
Xoff	Transmission off at this threshold.

Related Commands

Command	Description
hardware buffer-threshold	Configures the hardware buffer threshold.
hardware queue-limit	Configures the hardware queue limit.
show fex	Displays all configured Fabric Extender chassis connected to the switch.

show running-config copp

To display Control Plane Policing (CoPP) configuration information in the running configuration, use the **show running-config copp** command.

show running-config copp [all]

Syntax Description	all (Optional) Displays configured and default information.	
Command Default	None	
Command Modes	Any command mode	
Command History	Release	Modification
	6.0(2)N1(1)	This command was introduced.
Usage Guidelines	This command does not require a license.	
Examples	This example shows how to display the configured CoPP information in the running configuration on a switch that runs Cisco NX-OS Release 5.1(3)N1(1):	
	switch# show running-config copp	
	This example shows how to display the configured and default CoPP information in the running configuration:	
	switch# show running-config copp all	
Related Commands	Command	Description
	control-plane	Enters the control-plane configuration mode.
	copy running-config startup-config	Copies the running configuration to the startup configuration file.
	show startup-config aclmgr	Displays the ACL startup configuration.
	show startup-config copp	Displays the CoPP configuration information in the startup configuration file.

show running-config ipqos

To display information about the running-system configuration for quality of service (QoS), use the **show running-config ipqos** command.

show running-config ipqos [all]

Syntax Description	all (Optional) Displays configured and default information.	
Command Default	None	
Command Modes	EXEC mode	
Command History	Release	Modification
	6.0(2)N1(1)	This command was introduced.
Usage Guidelines	Use this command to view a list of default and configured class maps and policy maps and the policies attached to interfaces.	
Examples	This example shows how to display QoS information on a switch that runs Cisco NX-OS Release 5.0(2)N1(1): <pre>switch# show running-config ipqos !Command: show running-config ipqos !Time: Thu Sep 9 06:26:49 2010 version 5.0(2)N1(1) class-map type qos class-fcoe match cos 4 class-map type qos match-all 1 match cos 1 class-map type qos match-all 2 match cos 2 class-map type qos match-all 3 match cos 3 class-map type qos match-all 4 class-map type qos match-any 5 match cos 5,7 class-map type qos match-all arp match protocol dhcp match protocol arp match cos 3 class-map type qos match-all cos match cos 5 class-map type qos match-all dot match access-group name dot</pre>	

```

class-map type qos match-all my_class
  match dscp 3
  match precedence 0
  match protocol dhcp
class-map type qos match-all new
  match protocol netbios
:
<snip>
class-map type queuing my_qclass
  match qos-group 3
class-map type queuing Video-Signalling
  match qos-group 4
class-map type queuing class-ip-multicast
  match qos-group 4
policy-map type qos 5
  class 5
    set qos-group 2
  class Video
    set qos-group 3
policy-map type qos my_policy
  class my_class
    set precedence 5
    set dscp 5
  class myQAll
    set precedence 3
    set dscp 48
:
<snip>
policy-map type network-qos my_policy1
  class type network-qos my_class1
    pause no-drop buffer-size 143680 pause-threshold 58860 resume-threshold 3840
  class type network-qos class-fcoe
    pause no-drop
    mtu 2158
  class type network-qos class-default
:
<snip>
system qos
  service-policy type qos input voice
  service-policy type network-qos Network
  service-policy type queuing output Queue
  service-policy type queuing input Queue

<--output truncated-->
switch#

```

This example shows how to display QoS information on a switch that runs Cisco NX-OS Release 5.0(3)N1(1):

```

switch# show running-config ipqos

!Command: show running-config ipqos
!Time: Sun Apr 20 07:22:36 2008

version 5.0(3)N1(1)
class-map type qos class-fcoe
class-map type qos match-all c1
  match cos 3-5
class-map type queuing class-fcoe
  match qos-group 1
class-map type queuing class-all-flood
  match qos-group 2
class-map type queuing class-ip-multicast
  match qos-group 2

```

```
policy-map type qos p1
  class c1
    set qos-group 3
class-map type network-qos n1
  match qos-group 1
class-map type network-qos class-fcoe
  match qos-group 1
class-map type network-qos class-all-flood
  match qos-group 2
class-map type network-qos class-ip-multicast
  match qos-group 2
policy-map type network-qos n2
  class type network-qos n1
  class type network-qos class-default
    multicast-optimize

interface Ethernet1/5
  priority-flow-control mode on
  untagged cos 3

switch#
```

The above display shows the QoS information for Layer 3 interfaces (Ethernet 1/5 configured as a Layer 3 interface).

Related Commands

Command	Description
copy running-config startup-config	Copies the running configuration to the startup configuration file.
show class-map	Displays information about class maps.
show policy-map	Displays information about policy maps.

show startup-config copp

To display the Control Plane Policing (CoPP) configuration information in the startup configuration, use the **show startup-config copp** command.

show startup-config copp

Syntax Description	This command has no arguments or keywords.
---------------------------	--

Command Default	None
------------------------	------

Command Modes	Any command mode
----------------------	------------------

Command History	Release	Modification
	6.0(2)N1(1)	This command was introduced.

Usage Guidelines	This command does not require a license.
-------------------------	--

Examples	This example shows how to display the CoPP information in the startup configuration: switch# show startup-config copp
-----------------	---

Related Commands	Command	Description
	control-plane	Enters the control-plane configuration mode.
	copy running-config startup-config	Copies the running configuration to the startup configuration file.
	show running-config copp	Displays the CoPP configuration information in the running configuration.

show startup-config ipqos

To display quality of service (QoS) configuration information in the startup configuration, use the **show startup-config ipqos** command.

show startup-config ipqos [all]

Syntax Description	all (Optional) Displays configured and default information.
---------------------------	--

Command Default	None
------------------------	------

Command Modes	EXEC mode
----------------------	-----------

Command History	Release	Modification
	6.0(2)N1(1)	This command was introduced.

Examples This example shows how to display the QoS information in the startup configuration file:

```
switch# show startup-config ipqos

!Command: show startup-config ipqos
!Time: Thu Sep  9 07:42:33 2010
!Startup config saved at: Tue Sep  7 08:45:03 2010

version 5.0(2)N1(1)
class-map type qos class-fcoe
  match cos 4
class-map type qos match-all 1
  match cos 1
class-map type qos match-all 2
  match cos 2
class-map type qos match-all 3
  match cos 3
class-map type qos match-all 4
class-map type qos match-any 5
  match cos 5,7
class-map type qos match-all arp
  match protocol dhcp
  match protocol arp
  match cos 3
class-map type qos match-all cos
  match cos 5
class-map type qos match-all dot
  match access-group name dot
class-map type qos match-all new
  match protocol netbios
class-map type qos match-all rtp
  match ip rtp 2000-40000
class-map type qos match-all dscp
  match dscp 46
```

```

    match precedence 7
    match protocol arp
class-map type qos match-all Video
    match dscp 34
class-map type qos match-all Voice
    match dscp 40,46
class-map type qos match-all class1
    match ip rtp 2000
class-map type qos match-all class2
    match cos 1
class-map type qos match-all class3
    match protocol arp
class-map type qos match-all class4
    match protocol dhcp
class-map type qos match-all class5
    match protocol ldp
:
:
<--output truncated--

switch#

```

Related Commands

Command	Description
copy running-config startup-config	Copies the running configuration to the startup configuration file.
show class-map	Displays information about class maps.
show policy-map	Displays information about policy maps.

show wrr-queue cos-map

To display the mapped class of service (CoS) values to egress queues, use the **show wrr-queue cos-map** command.

show wrr-queue cos-map

Syntax Description This command has no arguments or keywords.

Command Default None

Command Modes EXEC mode

Command History	Release	Modification
	6.0(2)N1(1)	This command was introduced.

Examples This example shows how to display the CoS values that are mapped to the egress queue:

```
switch# show wrr-queue cos-map
MCAST Queue ID      Cos Map
0                    0 1
1                    2
2                    3 4 5
3                    6 7
switch#
```

Related Commands	Command	Description
	wrr-queue cos-map	Maps class of service (CoS) values to select one of the egress queues.

■ show wrr-queue cos-map