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

class-map-name	(Optional) Name of the control plane class map. The name is alphanumeric and case sensitive. The maximum length is 64 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 class map information:

```
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

class-map-name	Name of the class map. The name can be a maximum of 40 alphanumeric characters.

Command Default

Displays all type network-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.

Usage Guidelines

If you do not specify the type, the command displays all the class maps configured in the system.

Examples

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

```
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

class-map-name	Named class map. The name *class-default* is reserved. The name can be a maximum of 40 alphanumeric characters.

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 ipPacl

    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
```

```
      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

class-map-name	Named class map. The name can be a maximum of 40 alphanumeric characters.

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 *number*	(Optional) Displays flow control settings on all interfaces on a specified module. The module *number* 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  Receive FlowControl  RxPause TxPause
           admin    oper     admin    oper
--------------------------------------------------------------------------------
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
```

```
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 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

tcam-size	Interface QoS TCAM limit. The *tcam-size* 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:

```
switch(config)# configue 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
```

Related Commands

Command	Description
hardware profile tcam feature interface-qos limit	Configures the QoS TCAM limit

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.
policy-map-name	(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.
slot/[QSFP-module/]port	Ethernet interface slot number and port number. The *slot* number is from 1 to 255. The *QSFP-module* number is from 1 to 199. The *port* number is from 1 to 128.
port-channel	(Optional) Displays policy maps assigned to EtherChannels.
channel-number	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
```

```
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-channel1   [Active]:p1            pqe1          pqe1
port-channel3   [Active]:s             pqe1          pqe1
port-channel5   [Active]:s             pqe1          pqe1
port-channel6   [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 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)#
```

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#
```

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 *policy-map-name*	(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:

```
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

vlan-number	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#
```

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.
slot/[*QSFP-module/*]*port*]	(Optional) The *slot* number is from 1 to 255. The *QSFP-module* number is from 1 to 199. The *port* 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):

```
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
```

```
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 Queu
  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#
```