C H A P T E R 19

Q Commands

The commands in this chapter apply to the Cisco MDS 9000 Family of multilayer directors and fabric switches. All commands are shown here in alphabetical order regardless of command mode. See "About the CLI Command Modes" section on page 1-3 to determine the appropriate mode for each command.

qos class-map

To create and define a traffic class with match criteria that will be used to identify traffic, use the **qos class-map** command in configuration mode. To remove a previously-configured class, use the **no** form of the command.

qos class-map *class* [**match-all** | **match-any**]

no qos class-map *class*

Syntax Description

class-name	Specifies a class map name. Maximum length is 63 alphanumeric characters.
match-all	(Optional) Specifies a logical AND operator for all matching statements in this class. (default).
match-any	(Optional) Specifies a logical OR operator for all matching statements in this class.

Defaults   match-all

Command Modes   Configuration mode.

Command History

Release	Modification
1.0(2)	This command was introduced.

Usage Guidelines   You can access this command only if you enable the QoS data traffic feature using the **qos enable** command.

Examples   The following example shows how to create a QoS class map and enter class map configuration mode:

```
switch# config terminal
switch(config)# qos class-map MyClass1
switch(config-cmap)#
```

Related Commands

Command	Description
show qos	Displays configured QoS information.

qos control priority

To enable the QoS priority assignment for control traffic feature on the Cisco MDS 9000 family of switches, use the **qos control** priority command in configuration mode. To revert to the factory default, use the **no** form of the command.

qos control priority 0

no qos priority control 0

Syntax Description		
0		Specifies the lowest priority. To revert to the highest priority, use the **no** form of the command.

Defaults   Enabled and priority 7 are the defaults.

Command Modes   Configuration mode.

Command History	Release	Modification
	1.0(2)	This command was introduced.

Usage Guidelines   None.

Examples   The following example sets the QoS priority assignment to the highest level.

```
switch# config terminal
switch(config)# no qos control priority 0
```

Related Commands	Command	Description
	show qos	Displays configured QoS information.

qos dwrr-q

To associate a weight with a deficit weighted round robin (DWRR) scheduler queue, use the **qos dwrr-q** command in configuration mode. To remove a previously configured class, use the **no** form of the command.

qos dwrr-q {**high** | **low** | **medium**} **weight** *value*

no qos dwrr-q {**high** | **low** | **medium**} **weight** *value*

Syntax Description

high	Assigns the DWRR queue high option to DWRR queues.
low	Assigns the DWRR queue low option to DWRR queues.
medium	Assigns the DWRR queue medium option to DWRR queues.
weight *value*	Specifies DWRR queue weight.

Defaults   10

Command Modes   Configuration mode.

Command History

Release	Modification
1.3(1)	This command was introduced.

Usage Guidelines   You can access this command only if you enable the QoS data traffic feature using the **qos enable** command.

Examples   The following example specifies the DWRR queue priority:

```
switch# config terminal
switch(config)# qos dwrr-q high weight 50
```

The following example reverts to the default value of 10:

```
switch(config)# no qos dwrr-q high weight 50
```

Related Commands

Command	Description
show qos	Displays configured QoS information.

qos enable

To enable the QoS priority assignment for data traffic feature on the Cisco MDS 9000 family of switches, use the **qos enable** command in configuration mode. To disable the QoS priority assignment for control traffic feature, use the **no** form of the command.

qos enable

no qos enable

Syntax Description   This command has no arguments or keywords.

Defaults   Disabled.

Command Modes   Configuration mode.

Command History

Release	Modification
1.3(1)	This command was introduced.

Usage Guidelines   None.

Examples   The following example disables the QoS priority assignment feature:

```
switch# config terminal
switch(config)# qos enable
```

Related Commands

Command	Description
show qos	Displays configured QoS information.

qos policy-map

To specify the class of service, use the **qos policy-map** command in configuration mode. To remove a previously configured class, use the **no** form of the command.

qos policy-map *policy-name*

no qos policy-map *policy-name*

Syntax Description

policy-name	Specifies a policy map name. Maximum length is 63 alphanumeric characters.

Defaults   Disabled.

Command Modes   Configuration mode.

Command History

Release	Modification
1.3(1)	This command was introduced.

Usage Guidelines   You can access this command only if you enable the QoS data traffic feature using the **qos enable** command.

As an alternative, you can map a class map to a Differentiated Services Code Point (DSCP). The DSCP is an indicator of the service level for a specified frame. The DSCP value ranges from 0 to 63. A dscp value of 46 is disallowed.

Examples   The following example creates a policy map called MyPolicy and places you in the policy-map submode:

```
switch(config)# qos policy-map MyPolicy
switch(config-pmap)#
```

Related Commands

Command	Description
qos enable	Enables the QoS data traffic feature on the switch.
show qos	Displays configured QoS information.

qos priority

To configure the quality of server (QoS) priority attribute in a zone attribute group, use the **qos priority** command in zone attribute configuration submode. To revert to the default, use the **no** form of the command.

> **qos priority** {**high** | **low** | **medium**}

> **no qos priority** {**high** | **low** | **medium**}

Syntax Description

high	Specifies high priority.
low	Specifies low priority.
medium	Specifies medium priority.

Defaults   Low.

Command Modes   Zone attribute configuration submode.

Command History

Release	Modification
2.0(x)	This command was introduced.

Usage Guidelines   None.

Examples   The following example shows how to set the QoS priority attribute for a zone attribute group:

```
switch# config terminal
switch(config)# zone-attribute-group name admin-attributes vsan 10
switch(config-attribute-group)# qos priority medium
```

Related Commands

Command	Description
show zone-attribute-group	Displays zone attribute group information.
zone-attribute-group name	Configures zone attribute groups.

qos service

To apply a service policy, use the **qos service** command in configuration mode. To remove a previously configured class, use the **no** form of the command.

qos service policy *policy-name* **vsan** *vsan-id*

no qos service policy *policy-name* **vsan** *vsan-id*

Syntax Description

policy *policy-name*	Associates a policy map with the VSAN.
vsan *vsan-id*	Specifies the VSAN ID. The range is 1 to 4093.

Defaults

None.

Command Modes

Configuration mode.

Command History

Release	Modification
1.3(1)	This command was introduced.

Usage Guidelines

You can access this command only if you enable the QoS data traffic feature using the **qos enable** command.

Examples

The following example applies a configured policy to VSAN 3:

```
switch(config)# qos service policy MyPolicy vsan 3
Operation in progress. Please check policy-map parameters
```

The following example deletes a configured policy that was applied to VSAN 7:

```
switch(config)# no qos service policy OldPolicy vsan 7
Operation in progress. Please check policy-map parameters
```

Related Commands

Command	Description
show qos	Displays configured QoS information.

quiesce

To gracefully shut down an ISL in a PortChannel, use the **quiesce** command in configuration mode. To disable this feature, use the **no** form of the command.

> **quiesce interface fc** *slot/port*

> **no queisce interface fc** *slot/port*

Syntax Description	**interface fc** *slot/port*	Specifies the interface to be quiesced.

Defaults   None.

Command Modes   EXEC mode.

Command History

Release	Modification
1.3(1)	This command was introduced.
2.0(2b)	This command was deprecated and the functionality integrated into the **shutdown** command.

Usage Guidelines   The following conditions return an error:

- The interface is not part of PortChannel.
- The interface is not up.
- The interface is the last operational interface in the PortChannel:

Examples   The following example gracefully shuts down the one end of the ISL link in a PortChannel:

```
switchA# quiesce interface fc 2/1
WARNING: this command will stop forwarding frames to the specified interfaces. It is
intended to be used to gracefully shutdown interfaces in a port-channel. The procedure is:
1. quiesce the interfaces on both switches.
2. shutdown the interfaces administratively.
Do you want to continue? (y/n)  [n] y
```

Related Commands

Command	Description
show interface	Displays interface configuration and status information.

quiesce