QoS Commands

qos cos

To define the default CoS value of a port, use the **qos cos** command in the interface switch configuration mode. To restore the default configuration, use the **no** form of this command.

qos cos *default-cos*
no qos cos

Syntax Description

default-cos	Specifies the default CoS value (VPT value) of the port. If the port is trusted and the packet is untagged, the default CoS value become the CoS value. Valid range is from 0 to 7.

Command Default

The default CoS value of a port is 0.

Command Modes

Interface (Gigabit Ethernet, Port Channel) switch configuration (config-switch-if)

Command History

Release	Modification
3.5.1	This command was introduced.

Usage Guidelines

Use the default CoS value to assign a CoS value to all the untagged packets entering the interface.

Example

The following example defines the default CoS value of Gigabit Ethernet interface 1/1 as 3.

```
nfvis(config-switch)# interface gigabitEthernet 1/1
nfvis(config-switch-if)# qos cos 3
nfvis(config-switch-if)# commit
nfvis(config-switch-if)# end
```

qos dscp-mutation

To apply the DSCP mutation map to system DSCP trusted ports, use the **qos dscp-mutation** command in switch configuration mode. To restore the trusted port with no DSCP mutation, use the **no** form of this command.

qos dscp-mutation
no qos dscp-mutation

Syntax Description

This command has no arguments.

Command Default

Disabled

Command Modes

Switch configuration (config-switch)

Command History

Release	Modification
3.5.1	This command was introduced.

Usage Guidelines

Apply the DSCP-to-DSCP-mutation map to a port at the boundary of a Quality of Service (QoS) administrative domain. If two QoS domains have different DSCP definitions, use the DSCP-to-DSCP-mutation map to translate a set of DSCP values to match the definition of another domain. Apply the map to ingress and to DSCP-trusted ports only. Applying this map to a port causes IP packets to be rewritten with newly mapped DSCP values at the ingress ports. If applying the DSCP mutation map to an untrusted port, to class of service (CoS), or to an IP-precedence trusted port. Global trust mode must be DSCP or CoS-DSCP. In advanced CoS mode, ports must be trusted.

Example

The following example applies the DSCP Mutation map to system DSCP trusted ports.

```
nfvis(config-switch)# qos dscp-mutation
nfvis(config-switch)# commit
nfvis(config-switch)# end
```

qos map dscp-mutation

To configure the DSCP to DSCP mutation table, use the **qos map dscp-mutation** command in switch configuration mode. To restore the default configuration, use the **no** form of this command.

qos map dscp-mutation *in-dscp out-dscp*
no qos map dscp-mutation *in-dscp out-dscp*

Syntax Description

in-dscp	Specify the input dscp value. Valid range is from 0 to 63.
out-dscp	Specify the output dscp value. Valid range is from 0 to 63.

Command Default

The default map is the Null map, which means that each incoming DSCP value is mapped to the same DSCP value.

Command Modes

Switch configuration (config-switch)

Command History

Release	Modification
3.5.1	This command was introduced.

Usage Guidelines

This is the only map that is not globally configured. It is possible to have several maps and assign each one to a different port.

Example

The following example changes DSCP value 6 to DSCP mutation map value 63.

```
nfvis(config-switch)# qos map dscp-mutation 6 63
nfvis(config-switch)# commit
nfvis(config-switch)# end
```

qos map dscp-queue

To configure a DSCP value to a queue, use the **qos map dscp-queue** command in switch configuration mode. To restore the default configuration, use the **no** form of this command.

qos map dscp-queue *dscp-value queue-id*
no qos map dscp-queue [*dscp-value*]

Syntax Description

dscp-value	Specifies the dscp value.
queue-id	Specifies the queue number to which the DSCP value is to be mapped.

Command Default

The queue to cos and DSCP mapping is given in the table below:

CoS	Queue	DSCP	Queue
0	1	0-8	1
1	1	9-15	2
2	2	16, 24, 40, 48-63	6
3	5	17-23	3
4	4	25-31	4
5	7	32, 41-47	7
6	7	33-39	5
7	6		

Command Modes

Switch configuration (config-switch)

Command History

Release	Modification
3.5.1	This command was introduced.

Example

The following example maps DSCP value 40 to queue 1.

```
nfvis(config-switch)# qos map dscp-queue 40 1
nfvis(config-switch)# commit
nfvis(config-switch)# end
```

qos map policed-dscp

To configure the policed-DSCP map for remarking purposes, use the **qos map policed-dscp** command in switch configuration mode. To restore the default configuration, use the **no** form of this command.

qos map policed-dscp *dscp-value dscp-mark-down*
no qos map policed-dscp [*dscp-value*]

Syntax Description

dscp-value	Specifies a dscp value. Valid range is from 0 to 63.
dscp-mark-down	Specifies the DSCP value to mark down. Valid range is from 0 to 63.

Command Default

The default map is the Null map, which means that each incoming DSCP value is mapped to the same DSCP value.

Command Modes

Switch configuration (config-switch)

Command History

Release	Modification
3.5.1	This command was introduced.

Usage Guidelines

The original DSCP value and the policed-DSCP value must be mapped to the same queue in order to prevent reordering.

Example

The following example marks incoming DSCP value 3 as DSCP value 5 on the policed-DSCP map.

```
nfvis(config-switch)# qos map policed-dscp 3 5
nfvis(config-switch)# commit
nfvis(config-switch)# end
```

qos port

To configure the port trust mode, use the **qos port** command in switch configuration mode. To restore the default configuration, use the **no** form of this command.

qos port {**ports-not-trusted** | **ports-trusted**}
no qos port

Syntax Description

ports-not-trusted	Indicates that the packets, which are not classified by policy map rules to a QoS action, are mapped to egress queue 0 unless a policy map action explicitly specifies another trust/set action.
ports-trusted	Indicates that the packets, which are not classified by policy map rules to a QoS action, are mapped to an egress queue based on the packet's fields, unless a policy map action explicitly specifies another trust/set action. Use the **qos trust cos-dhcp** command to specify the trust mode.

Command Default

ports-not-trusted

Command Modes

Switch configuration (config-switch)

Command History

Release	Modification
3.5.1	This command was introduced.

Usage Guidelines

None

Example

The following example configures the port trust mode.

```
nfvis(config-switch)# qos port ports-trusted
nfvis(config-switch)# commit
nfvis(config-switch)# end
```

qos trust cos-dscp

To configure the system to the cos-dscp trust mode, use the **qos trust cos-dscp** command in switch configuration mode. To return to the default configuration, use the **no** form of this command.

qos trust cos-dscp
no qos trust cos-dscp

Syntax Description

This command has no arguments.

Command Default

The default trust mode is dscp.

Command Modes

Switch configuration (config-switch)

Command History

Release	Modification
3.5.1	This command was introduced.

Usage Guidelines

This command can be used only in QoS basic mode.

Packets entering a QoS domain are classified at its edge. When the packets are classified at the edge, the switch port within the QoS domain can be configured to the trusted state because there is no need to classify the packets at every switch within the domain.

Example

The following example configures the system to the cos-dscp trust state.

```
nfvis(config-switch)# qos trust cos-dscp
nfvis(config-switch)# commit
nfvis(config-switch)# end
```