Legacy QoS Command Deprecation

The functionality provided by these hidden commands has been replaced by similar functionality provided via the modular QoS CLI (MQC). The MQC is a set of a platform-independent commands for configuring QoS on Cisco platforms. This means that you must now provision QoS by defining traffic classes, creating traffic policies containing those classes, and attaching those policies to the desired interfaces. This document lists the hidden commands and their replacement MQC commands.

Finding Feature Information

Your software release may not support all the features documented in this module. For the latest caveats and feature information, see Bug Search Tool and the release notes for your platform and software release. To find information about the features documented in this module, and to see a list of the releases in which each feature is supported, see the feature information table at the end of this module.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to www.cisco.com/go/cfn. An account on Cisco.com is not required.

Information About Legacy QoS Command Deprecation

QoS Features Applied Using the MQC

The MQC structure lets you define a traffic class (also called a class map), create a traffic policy (also called a policy map), and attach the traffic policy to an interface. This comprises the following three high-level steps.

1 Define a traffic class by using the **class-map** command. A traffic class is used to classify traffic.

2 Create a traffic policy by using the **policy-map** command. A traffic policy contains a traffic class and one or more QoS features that will be applied to the traffic class. The QoS features in the traffic policy determine how to treat the classified traffic.

3 Attach the traffic policy to the interface by using the **service-policy** command.

Steps 1 and 3 do not involve legacy QoS hidden commands, which means that they are not within the scope of this document. For more information about these two steps, see the " Applying QoS Features Using the MQC " module in the *Quality of Service Solutions Configuration Guide* .

Legacy Commands Being Hidden

The table below lists the commands that have been hidden. The table also lists their replacement commands (or sequence of commands).

Table 1: Map of Hidden Commands to Their Replacement Commands

Hidden Commands	Replacement MQC Command Sequence
Configuring Weighted Random Early Detection or Distributed Weighted Random Early Detection Parameter Groups	
Commands • random-detect-group • random-detect (per VC) **Note** This command is not supported in Cisco IOS Release 15.0(1)S. **Command Usage** `Router(config)# `**`random-detect-group`** `group-name` ` [`**`dscp-based`** `	`**`prec-based`** `]` `Router(config)# `**`interface atm`** `type`  `number` `Router(config-if)# pvc [` `name` `]` `vpi` **`/`** `vci` `Router(config-if-atm-vc)# random-detect` ` [`**`attach`**  `group-name` `]`	**Command Usage** None (this functionality no longer exists).
Configuring Weighted Random Early Detection	

Hidden Commands	Replacement MQC Command Sequence

Commands
 	
• random-detect
 	
• random-detect dscp
 	
• random-detect (dscp-based keyword)
 	
• random-detect flow
 	
• random-detect exponential-weighting-constant
 	
• random-detect (prec-based keyword)
 	
• random-detect precedence
 	
Command Usage
 	
``
Router(config)# interface
 	
type
 	
number
Router(config-if)# random-detect [
number
]
Router(config-if)# random-detect
exponential-weighting-constant
exponent
Router(config-if)# random-detect flow
Router(config-if)# random-detect precedence
 {
precedence
 	
	rsvp}
	min-threshold
	
	max-threshold
	
	max-probability-denominator
	Router(config-if)# random-detect prec-based
	Router(config-if)# random-detect dscp-based
	Router(config-if)# random-detect dscp
	dscp-value
	
	min-threshold
	
	max-threshold
	 [
	max-probability-denominator
	]
	``
		Command Usage
		
		``
		Router(config)# policy-map
		
		policy-map-name
		Router(config-pmap)# class class-default
		Router(config-pmap-c)# random-detect dscp
		dscp-value
		
		min-threshold
		
		max-threshold
		 [
		mark-probability-denominator
		]
		Router(config-pmap-c)# random-detect clp
		
		clp-value
		
		min-threshold
		
		max-threshold
		 [
		mark-probability-denominator
		]
		Router(config-pmap-c)# random-detect cos
		
		cos-value
		
		min-threshold
		
		max-threshold
		 [
		mark-probability-denominator
		]
		Router(config-pmap-c)# random-detect
		discard-class
		
		discard-class-value
		
		min-threshold
		
		max-threshold
		 [
		mark-probability-denominator
		]
		Router(config-pmap-c)# random-detect
		 precedence
		
		ip-precedence
		
		min-threshold
		
		max-threshold
		 [
		mark-probability-denominator
		]
		Router(config-pmap-c)# random-detect
		precedence-based
		Router(config-pmap-c)# random-detect ecn
		Router(config-pmap-c)# random-detect
		exponential-weighting-constant
		
		exponent
		Router(config-pmap-c)# random-detect
		cos-based
		Router(config-pmap-c)# random-detect
		 dscp-based
		``

Hidden Commands	Replacement MQC Command Sequence

Commands
 	
• random-detect flow
 	
• random-detect flow average-depth-factor
 	
• random-detect flow count
 	
Command Usage
 	
`Router(config)# `**`interface`**
 	
`type`
 	
`number`
`Router(config-if)# random-detect [`
`number`
`]`
`Router(config-if)# random-detect flow`
`Router(config-if)# random-detect flow count`
 	
`number`
`Router(config-if)# random-detect flow`
`average-depth-factor`
`scaling-factor`
	Command Usage
	
	None (this functionality no longer exists).

Configuring Bandwidth Allocation	

Commands
 	
• max-reserved-bandwidth
 	
Command Usage
 	
`Router(config)# `**`interface`**
 	
`type`
 	
`number`
`Router(config-if)# max-reserved-bandwidth`
`percentage`
	Command Usage
	
	`Router(config)# `**`policy-map`**
	
	`policy-map-name`
	`Router(config-pmap)# `**`class class-default`**
	`Router(config-pmap-c)# `**`bandwidth`**
	  {*bandwidth-in-kbps* |
	remaining percent
	  percentage | **percent**
	  percentage}

Configuring Custom Queueing	

Commands
 	
• custom-queue-list
 	
Note   This command is not supported in Cisco IOS Release 15.0(1)S.
Command Usage
 	
`Router(config)# `**`interface`**
 	
`type`
 	
`number`
`Router(config-if)# `**`custom-queue-list`**
 `[`
`list-number`
`]`
	Command Usage
	
	`Router(config)# `**`policy-map`**
	
	`policy-map-name`
	`Router(config-pmap)# class class-default`
	`Router(config-pmap-c)# `**`bandwidth`**
	  {*bandwidth-in-kbps* |
	remaining percent
	  percentage | **percent**
	  percentage}

Hidden Commands	Replacement MQC Command Sequence
Configuring Priority Queueing	

Commands
 	
• ip rtp priority
 	
• ip rtp reserve
 	
Command Usage
 	
`Router(config)# ` **`interface`**
 	
`type`
 	
`number`
`Router(config-if)# ip rtp priority`
`starting-port-number`
`port-range bandwidth`
 	
`Router(config)# ` **`interface`**
 	
`type`
 	
`number`
`Router(config-if)# ip rtp reserve`
`lowest-udp-port range-of-ports`
`[maximum-bandwidth] 1000`
	Command Usage
	
	`Router(config)# ` **`policy-map`**
	
	`policy-map-name`
	`Router(config-pmap)# ` **`class`**
	`class-name`
	`Router(config-pmap-c)# ` **`priority`**

Configuring Weighted Fair Queueing	

Commands
 	
• fair-queue (WFQ)
 	
Command Usage (Cisco IOS Release 15.0(1)S)
 	
`Router(config)# ` **`interface`**
 	
`type`
 	
`number`
`Router(config-if)# ` **`fair-queue`**
Command Usage (Cisco IOS Release 15.1(3)T)
 	
`Router(config)# ` **`interface`**
 	
`type`
 	
`number`
`Router(config-if)# ` **`fair-queue [congestive-`**`discard-threshold `**`[`**
`dynamic-queue-count`
  `[`*`reserved-queue-count`*`]]]`**`
	Command Usage (Cisco IOS Release 15.0(1)S)
	
	`Router(config)# ` **`policy-map`**
	
	`policy-map-name`
	`Router(config-pmap)# ` **`class class-default`**
	`Router(config-pmap-c)# ` **`fair-queue`**
	Command Usage (Cisco IOS Release 15.1(3)T)
	
	`Router(config)# ` **`policy-map`**
	
	`policy-map-name`
	`Router(config-pmap)# ` **`class class-default`**
	`Router(config-pmap-c)# ` **`fair-queue`**
	 `[`
	`dynamic-queues`
	`]`

Assigning a Priority Group to an Interface	

Hidden Commands	Replacement MQC Command Sequence

Commands
 	
    • priority-group
 	
Note   This command is not supported in Cisco IOS Release 15.0(1)S.
Command Usage
 	
`Router(config)# `**`interface`**
 	
`type`
 	
`number`
`Router(config-if)# `**`priority-group`**
`list-number`
	Command Usage
	
	`Router(config)# `**`policy-map`**
	`policy`
	`-`
	`map-name`
	`Router(config-pmap)# `**`class class-default`**
	`Router(config-pmap-c)# `**`priority`**
	`Router(config-pmap-c)# `**`priority`**
	`bandwidth-in-kbps`
	`  [`
	`burst-in-bytes`
	`]`
	`Router(config-pmap-c)# `**`priority percent`**
	`percent`
	`  [`
	`burst-in-bytes`
	`]`
	`Router(config-pmap-c)# `**`priority level`**
	`level`
	`Router(config-pmap-c)# `**`priority level`**
	`level`
	
	`[`
	`bandwidth-in-kbps`
	`  [`
	`burst-in-bytes`
	`]]`
	`Router(config-pmap-c)# `**`priority level`**
	`level`
	
	`[`**`percent`**
	`percent`
	`  [`
	`burst-in-bytes`
	`]]`

Configuring the Threshold for Discarding DE Packets from a Switched PVC Traffic Shaping Queue	

Hidden Commands	Replacement MQC Command Sequence

Commands
 	
• frame-relay congestion threshold de
 	
Command Usage
 	
`Router(config)#` **`map-class frame-relay`**
 	
`map-class-name`
`Router(config-map-class)#` **`frame-relay`** **`congestion threshold de`**
`percentage`
	Command Usage
	
	`Router(config)#` **`policy-map`**
	`policy-map-name1`
	`Router(config-pmap)#` **`class class-default`**
	`Router(config-pmap-c)#`
	`random-detect discard-class-based`
	`Router(config-pmap-c)#`
	`random-detect discard-class`
	
	`discard-class`
	
	`min-threshold`
	
	`max-threshold`
	`Router(config-pmap-c)#` **`exit`**
	`Router(config-pmap)#` **`exit`**
	`Router(config)#` **`policy-map shape`**
	`Router(config-pmap)#` **`class class-default`**
	`Router(config-pmap-c)#` `shape average rate`
	`Router(config-pmap-c)#` `service-policy`
	`policy-map-name1`
	`Router(config-pmap-c)#` **`exit`**
	`Router(config-pmap)#` **`exit`**
	`Router(config)#` **`policy-map`**
	`policy-map-name2`
	`Router(config-pmap)#` **`class`**
	
	`class-name`
	`Router(config-pmap-c)#` **`set discard-class`**
	
	`discard-class`

Configuring Frame Relay Custom Queueing for Virtual Circuits	

Commands
 	
• frame-relay custom-queue-list
 	
Command Usage
 	
`Router(config)#` `map-class frame-relay`
`map-class-name`
`Router(config-map-class)#` `frame-relay`
`custom-queue-list`
`list-number`
	Command Usage
	
	`Router(config)#` **`policy-map`**
	
	`policy-map-name`
	`Router(config-pmap)#` `class class-default`
	`Router(config-pmap-c)#` **`bandwidth`**
	 {*bandwidth-in-kbps* | **`remaining percent`**
	 percentage | **`percent`**
	 percentage}

Configuring Frame Relay ECN Bits Threshold	

Commands
 	
• frame-relay congestion threshold ecn
 	
Command Usage
 	
`Router(config)#` **`map-class frame-relay`**
 	
`map-class-name`
`Router(config-map-class)#`
`frame-relay congestion threshold ecn`
`percentage`
	Command Usage
	
	`Router(config)#` **`policy-map`**
	
	`policy-map-name`
	`Router(config-pmap)#` `class class-default`
	`Router(config-pmap-c)#` `shape average rate`
	`Router(config-pmap-c)#` `set fr-fecn-becn`
	`percent`

Hidden Commands	Replacement MQC Command Sequence
Configuring Frame Relay Weighted Fair Queueing	

Commands
 	
• frame-relay fair-queue
 	
Command Usage
 	
`Router(config)# map-class frame-relay`
`map-class-name`
`Router(config-map-class)# frame-relay`
`fair-queue`
`[discard-threshold [dynamic-queue-count`
`[reserved-queue-count [buffer-limit]]]]`
	Command Usage
	
	`Router(config)# `**`policy-map`**
	
	`policy-map-name`
	`Router(config-pmap)# class class-default`
	`Router(config-pmap-c)# `**`fair-queue`**
	`Router(config-pmap-c)# `**`fair-queue`**
	` dynamic-queues`
	`Router(config-pmap-c)# fair-queue queue-limit`
	
	`packets`
	
	Note The **queue-limit** *packets* keyword and argument pair is not supported in Cisco IOS Release 15.1(3)T.

Configuring Frame Relay Priority Queueing on a PVC	

Commands
 	
• frame-relay ip rtp priority
 	
Command Usage
 	
`Router(config)# map-class frame-relay`
`map-class-name`
`Router(config-map-class)# `**`frame-relay ip rtp`**
 	
`priority`
 	
`starting-port-number`
 	
`port-range`
 	
`bandwidth`
	Command Usage
	
	`Router(config)# `**`policy-map`**
	
	`policy-map-name`
	`Router(config-pmap)# `**`class`**
	`class-name`
	`Router(config-pmap-c)# `**`priority`**
	`bandwidth-in-kbps [burst-in-bytes]`

Assigning a Priority Queue to Virtual Circuits Associated with a Map Class	

Hidden Commands	Replacement MQC Command Sequence
Commands • frame-relay priority-group **Command Usage** Router(config)# **map-class frame-relay** map-class-name Router(config-map-class)# **frame-relay priority-group** group-number	**Command Usage** Router(config)# **policy-map** policy-map-name Router(config-pmap)# class class-default Router(config-pmap-c)# **priority** Router(config-pmap-c)# **priority** bandwidth-in-kbps [burst-in-bytes] Router(config-pmap-c)# **priority** **percent** percentage [burst-in-bytes] Router(config-pmap-c)# priority level level [percent percentage [burst-in-bytes]] **Note** The **priority level** command is not supported in Cisco IOS Release 15.1(3)T.
Configuring the Frame Relay Rate Adjustment to BECN	
Commands • frame-relay adaptive-shaping (becn keyword) **Command Usage** Router(config)# **map-class frame-relay** map-class-name Router(config-map-class)# **frame-relay adaptive-shaping becn**	**Command Usage** Router(config)# **policy-map** policy-map-name Router(config-pmap)# class class-default shape average rate Router(config-pmap-c)# shape adaptive rate
Configuring the Frame Relay Rate Adjustment to ForeSight Messages	
Commands • frame-relay adaptive-shaping (foresight keyword) **Command Usage** Router(config)# **map-class frame-relay** map-class-name Router(config)# **frame-relay adaptive-shaping** **foresight**	**Command Usage** None (this functionality no longer exists).
Enabling Frame Relay Traffic-Shaping FECNs as BECNs	

Hidden Commands	Replacement MQC Command Sequence

Commands
 	
　• frame-relay fecn-adapt
 	
Command Usage
 	
`Router(config)# `**`map-class frame-relay`**
 	
`map-class-name`
`Router(config-map-class)#`
`frame-relay fecn-adapt`
	Command Usage
	
	`Router(config)# `**`policy-map`**
	
	`policy-map-name`
	`Router(config-pmap)# `**`class class-default`**
	`Router(config-pmap-c)# shape average`
	rate
	`Router(config-pmap-c)# shape fecn-adapt`

Configuring the Frame Relay Enhanced Local Management Interface	
Commands 　• frame-relay qos-autosense **Note**　This command has not been hidden in Cisco IOS Release 15.0(1)S. **Command Usage** `Router(config)# `**`interface`** *typenumber*`Router(config-if)#`**`no ip address`** `Router(config-if)# `**`encapsulation frame-relay`** `Router(config-if)# `**`frame-relay lmi-type`** 　**`ansi`** `Router(config-if)#` **`frame-relay traffic-shaping`** `Router(config-if)# `**`frame-relay qos-autosense`**	**Command Usage** None (this functionality no longer exists).
Configuring Frame Relay Priority to a permanent virtual circuit (PVC)	

Commands
 	
　• frame-relay interface-queue
 	
Command Usage
 	
`Router(config)# `**`interface`**
typenumber`Router(config-if)#`**`no ip address`**
`Router(config-if)# frame-relay`
`interface-queue priority 10 20 30 40`
	Command Usage
	`Router(config)# `**`policy-map`**
	
	`policy-map-name`
	`Router(config-pmap)# `**`class class-default`**
	`Router(config-pmap-c)# `**`priority`**
	`Router(config-pmap)# `**`class class-default`**
	`Router(config-pmap-c)# `**`priority`**

Configuring Frame Relay Traffic Shaping	

Hidden Commands	Replacement MQC Command Sequence
Commands • frame-relay bc • frame-relay be • frame-relay cir **Note** In Cisco IOS Release 15.1(3)T, these commands are not hidden, but they are valid only for SVCs (not PVCs). **Command Usage** `Router(config)# `**`map-class frame-relay`** `map-class-name` `Router(config-map-class)# frame-relay bc {in` `| out}` `committed-burst-size-in-bits` `Router(config-map-class)# frame-relay be {in` `| out}` `excess-burst-size-in-bits` `Router(config-map-class)# frame-relay cir` `{in	out}` `bits-per-second`	**Command Usage** `Router(config)# `**`policy-map`** `policy-map-name` `Router(config-pmap)# `**`class class-default`** `Router(config-pmap-c)# shape average` *rate*
Configuring Frame Relay Traffic Shaping on a VC	

Commands
 	
• frame-relay traffic-rate
 	
Command Usage
 	
`Router(config)# `**`map-class frame-relay`**
 	
`map-class-name`
`Router(config-map-class)# traffic-rate`
`average [peak]`
	Command Usage
	
	`Router(config)# `**`policy-map`**
	
	`policy-map-name`
	`Router(config-pmap)# `**`class class-default`**
	`Router(config-pmap-c)# shape average`
	rate
	`Router(config-pmap-c)# `**`service-policy output`**
	 `traffic-rate``service-policy output`
	`traffic-rate`

Displaying the Contents of Packets Inside a Queue for an Interface or VC	
Commands • show queue **Command Usage** `Router# show queue interface`	**Command Usage** `Router# `**`show policy-map interface`**
Displaying Queueing Strategies	

Hidden Commands	Replacement MQC Command Sequence
Commands • show queueing **Command Usage** `Router# show queueing`	**Command Usage** Router# **show policy-map interface**
Displaying Weighted Random Early Detection (WRED) Information	

Commands
 	
• show interfaces random-detect
 	
Command Usage
 	
`Router# show interfaces [type number]`
`random-detect`
	Command Usage
	
	Router# **show policy-map interface**

Displaying WRED Parameter Groups	
Commands • show random-detect-group **Command Usage** `Router# show random-detect-group`	**Command Usage** Router# **show policy-map interface**
Displaying the Traffic-Shaping Configuration, Queueing, and Statistics	

Commands
 	
• show traffic-shape
 	
• show traffic-shape queue
 	
• show traffic-shape statistics
 	
Command Usage
 	
`Router# show traffic-shape [interface-type`
`interface-number]`
`Router# show traffic-shape queue`
`[interface-number`
`[dlci dlci-number]]`
`Router# show traffic-shape statistics`
`[interface-type interface-number]`
	Command Usage
	
	Router# **show policy-map interface**

Displaying Weighted Fair Queueing Information	

Hidden Commands	Replacement MQC Command Sequence

Commands
 	
• show interfaces fair-queue
 	
Command Usage
 	
`Router# show interfaces [interface-type`
`interface-number]`
`fair-queue`
	Command Usage
	
	`Router#` **show policy-map interface**

Additional References

Related Documents

Related Topic	Document Title
Defining traffic classes; attaching traffic policies to interfaces	Applying QoS Features Using the MQC " module in the *Quality of Service Solutions Configuration Guide*
Reference pages for QoS commands	*Cisco IOS Quality of Service Solutions Command Reference*
Reference pages for wide-area networking commands	*Cisco IOS Wide-Area Networking Command Reference*

Technical Assistance

Description	Link
The Cisco Support and Documentation website provides online resources to download documentation, software, and tools. Use these resources to install and configure the software and to troubleshoot and resolve technical issues with Cisco products and technologies. Access to most tools on the Cisco Support and Documentation website requires a Cisco.com user ID and password.	http://www.cisco.com/cisco/web/support/index.html

Feature Information for Legacy QoS Command Deprecation

The following table provides release information about the feature or features described in this module. This table lists only the software release that introduced support for a given feature in a given software release train. Unless noted otherwise, subsequent releases of that software release train also support that feature.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to www.cisco.com/go/cfn. An account on Cisco.com is not required.

Table 2: Feature Information for Legacy QoS Command Deprecation

Feature Name	Releases	Feature Information
Legacy QoS Command Deprecation: Hidden Commands	15.0(1)S 15.1(3)T	

Feature Name	Releases	Feature Information
		To streamline Cisco IOS QoS, certain commands have been hidden, which means that if you try to view a hidden command by entering a question mark (**?**) at the command line, the command does not appear. However, if you know the command syntax, you can enter it. These commands will be removed in a future release. The functionality provided by these hidden commands is replaced by similar functionality from the modular QoS CLI (MQC), which is a set of a platform-independent commands for configuring QoS. The following commands were modified: **custom-queue-list**, **fair-queue (WFQ)**, **frame-relay adaptive-shaping** (**becn** keyword), **frame-relay adaptive-shaping** (**foresight** keyword), **frame-relay bc**, **frame-relay be**, **frame-relay cir**, **frame-relay congestion threshold de**, **frame-relay congestion threshold ecn**, **frame-relay custom-queue-list**, **frame-relay fair-queue**, **frame-relay fecn-adapt**, **frame-relay ip rtp priority**, **frame-relay priority-group**, **frame-relay qos-autosense**, **ip rtp priority**, **max-reserved-bandwidth**, **priority-group**, **random-detect**, **random-detect dscp**, **random-detect(dscp-based** keyword), **random-detect exponential-weighting-constant**, **random-detect flow**, **random-detect flow average-depth-factor**, **random-detect flow count**, **random-detect(prec-based** keyword), **random-detect precedence**, **random-detect-group**, **show interfaces fair-queue**, **show**

Feature Name	Releases	Feature Information
		interfaces random-detect, **show queue**, **show queueing**, **show random-detect-group**, **show traffic-shape**, **show traffic-shape queue**, **show traffic-shape statistics**.
Legacy QoS Command Deprecation: Hidden Commands	Cisco IOS XE Release 2.6	To streamline Cisco IOS XE QoS, certain commands have been hidden, which means that if you try to view a hidden command by entering a question mark (**?**) at the command line, the command does not appear. However, if you know the command syntax, you can enter it. These commands will be removed in a future release. The functionality provided by these hidden commands is replaced by similar functionality from the modular QoS CLI (MQC), which is a set of a platform-independent commands for configuring QoS. The following commands were modified: **custom-queue-list**, **fair-queue (WFQ)**, **frame-relay adaptive-shaping** (**becn** keyword), **frame-relay adaptive-shaping** (**foresight** keyword), **frame-relay bc**, **frame-relay be**, **frame-relay cir**, **frame-relay congestion threshold de**, **frame-relay congestion threshold ecn**, **frame-relay custom-queue-list**, **frame-relay fair-queue**, **frame-relay fecn-adapt**, **frame-relay ip rtp priority**, **frame-relay priority-group**, **frame-relay qos-autosense**, **ip rtp priority**, **max-reserved-bandwidth**, **show interfaces fair-queue**, **show interfaces random-detect**, **show queue**, **show queueing**, **show traffic-shape**, **show traffic-shape queue**, **show traffic-shape statistics**.

Feature Name	Releases	Feature Information
Legacy QoS Command Deprecation: Removed Commands	Cisco IOS XE Release 3.2S	The legacy QoS commands were removed. This means that you must use the appropriate replacement MQC commands. The following commands were removed: **custom-queue-list**, **fair-queue (WFQ)**, **frame-relay adaptive-shaping** (**becn** keyword), **frame-relay adaptive-shaping** (**foresight** keyword), **frame-relay bc**, **frame-relay be**, **frame-relay cir**, **frame-relay congestion threshold de**, **frame-relay congestion threshold ecn**, **frame-relay custom-queue-list**, **frame-relay fair-queue**, **frame-relay fecn-adapt**, **frame-relay ip rtp priority**, **frame-relay priority-group**, **frame-relay qos-autosense**, **ip rtp priority**, **max-reserved-bandwidth**, **show interfaces fair-queue**, **show interfaces random-detect**, **show queue**, **show queueing**, **show traffic-shape**, **show traffic-shape queue**, **show traffic-shape statistics**.