21- QoS Configuration Commands

21.1 QoS Configuration Command Tree

Description

This chapter gives an overview of nodes that are handled by "QoS Configuration Commands".

Command Tree

----configure
----qos
- [no] atm-overhead-fact
- [no] eth-efm-fact
- [no] enable-alignment
- [no] cac-mode
- [no] use-dei
- [no] set-dei

----tc-map-dot1p
- **(index)**
- **X** queue
- tc
- dpcolor
- policer-color

----dsl-ctrl-pkt-policer
- [no] sustained-rate
- [no] burst-size
- [no] protocol-ctrl

----nni-ctrl-pkt-policer
- [no] sustained-rate
- [no] burst-size

----dscp-map-dot1p
- **(index)**
- dot1p-value

----profiles

----[no] queue
- **(name)**
- (bac-complex-type)
- [no] unit

----[no] scheduler-node
- **(name)**
- priority
- weight
- shaper-profile
- [no] ext-shaper
- [no] mcast-inc-shape

----[no] cac
- **(name)**
- res-voice-bandwidth
- max-mcast-bandwidth
- res-data-bandwidth
- [no] cac-type

----marker

----[no] d1p
- **(name)**

- default-dot1p
----[no] dscp
- **(name)**
- default-dscp
- [no] alignment
----[no] dscp-contract
- **(name)**
- [no] alignment
----codepoint
- **(codepoint)**
- [no] dscp-value
----[no] d1p-dscp-contract
- **(name)**
- dot1p-value
X [no] alignment
----codepoint
- **(codepoint)**
- [no] dscp-value
----[no] d1p-dscp
- **(name)**
- default-dscp
- default-dot1p
----[no] d1p-alignment
- **(name)**
- (alignment)
- [no] dscp-pbit-prof
----[no] dot1p-remark
- **(name)**
----dot1p-value
- **(dot1p-value)**
- [no] remark-value

----[no] policer
- **(name)**
- committed-info-rate
- committed-burst-size
- [no] policer-type
- [no] excess-info-rate
- [no] excess-burst-size
- [no] coupling-flag
- [no] color-mode
- [no] green-action
- [no] yellow-action
- [no] red-action
- [no] policed-size-ctrl
- [no] peak-info-rate
- [no] peak-burst-size
- [no] cos-threshold

----[no] l2-filter
- **(name)**
- [no] dst-mac-addr
- [no] src-mac-addr
- [no] ethertype
- [no] dot1p-priority
- [no] canonical-format
- [no] vlan-id

----[no] l3-filter
- **(name)**
- [no] filter-type
- [no] dst-ip-addr

- [no] src-ip-addr
- [no] dst-ipv6-addr
- [no] src-ipv6-addr
- [no] min-dst-port
- [no] max-dst-port
- [no] min-src-port
- [no] max-src-port
- [no] dscp-value
- [no] protocol

----[no] policy-action

- **(name)**
- [no] dscp-value
- [no] dot1p-value
- [no] discard-packet
- [no] shared-policer
- [no] policer-profile
- [no] count
- [no] mirror-vlan
- [no] tc-value

----[no] policy

- **(name)**
- filter
- [no] precedence
- [no] policy-action

----[no] session

- **(name)**
- logical-flow-type
- [no] up-policer
- [no] down-policer
- [no] up-marker
- [no] ing-outer-marker
- [no] ds-schedule-tag
- [no] up-policer-per-tc
- [no] up-dscptotc-prof
- [no] dn-dscptotc-prof
- [no] up-pbittotc-prof
- [no] dn-pbittotc-prof
- [no] up-default-tc
- [no] dn-default-tc

----[no] up-policy

- **(name)**

----[no] down-policy

- **(name)**

----[no] rem-up-policy

- **(name)**

----[no] rem-down-policy

- **(name)**

----[no] aggrqueuesconfig

- **(name)**
- [no] q0-priority
- [no] q1-priority
- [no] q2-priority
- [no] q3-priority
- [no] q4-priority
- [no] q5-priority
- [no] q6-priority
- [no] q7-priority
- [no] q0-weight
- [no] q1-weight

- [no] q2-weight
- [no] q3-weight
- [no] q4-weight
- [no] q5-weight
- [no] q6-weight
- [no] q7-weight
- [no] q0-shaper-prof
- [no] q1-shaper-prof
- [no] q2-shaper-prof
- [no] q3-shaper-prof
- [no] q4-shaper-prof
- [no] q5-shaper-prof
- [no] q6-shaper-prof
- [no] q7-shaper-prof
- [no] q0-queue-prof
- [no] q1-queue-prof
- [no] q2-queue-prof
- [no] q3-queue-prof
- [no] q4-queue-prof
- [no] q5-queue-prof
- [no] q6-queue-prof
- [no] q7-queue-prof
- [no] q0-bandwidth-prof
- [no] q1-bandwidth-prof
- [no] q2-bandwidth-prof
- [no] q3-bandwidth-prof
- [no] q4-bandwidth-prof
- [no] q5-bandwidth-prof
- [no] q6-bandwidth-prof
- [no] q7-bandwidth-prof
- [no] q0-bw-sharing
- [no] q1-bw-sharing
- [no] q2-bw-sharing
- [no] q3-bw-sharing
- [no] q4-bw-sharing
- [no] q5-bw-sharing
- [no] q6-bw-sharing
- [no] q7-bw-sharing

----[no] shaper

- **(name)**
- committed-info-rate
- committed-burst-size
- [no] excess-info-rate
- [no] type
- [no] autoshape

----[no] bandwidth

- **(name)**
- committed-info-rate
- assured-info-rate
- excessive-info-rate
- [no] delay-tolerance
- [no] assu-burst-size
- [no] exce-burst-size
- [no] dbru

----[no] ingress-qos

- **(name)**
- [no] dot1-p0-tc
- [no] dot1-p1-tc

- [no] dot1-p2-tc
- [no] dot1-p3-tc
- [no] dot1-p4-tc
- [no] dot1-p5-tc
- [no] dot1-p6-tc
- [no] dot1-p7-tc
- [no] use-dei
- [no] dot1-p0-color
- [no] dot1-p1-color
- [no] dot1-p2-color
- [no] dot1-p3-color
- [no] dot1-p4-color
- [no] dot1-p5-color
- [no] dot1-p6-color
- [no] dot1-p7-color
- [no] dot1-p0-pol-tc
- [no] dot1-p1-pol-tc
- [no] dot1-p2-pol-tc
- [no] dot1-p3-pol-tc
- [no] dot1-p4-pol-tc
- [no] dot1-p5-pol-tc
- [no] dot1-p6-pol-tc
- [no] dot1-p7-pol-tc

----[no] rate-limit

- **(name)**
- [no] total-rate
- [no] total-burst
- [no] arp-rate
- [no] arp-burst
- [no] dhcp-rate
- [no] dhcp-burst
- [no] igmp-rate
- [no] igmp-burst
- [no] pppoe-rate
- [no] pppoe-burst
- [no] nd-rate
- [no] nd-burst
- [no] icmpv6-rate
- [no] icmpv6-burst
- [no] mld-rate
- [no] mld-burst
- [no] dhcpv6-rate
- [no] dhcpv6-burst
- [no] cfm-rate
- [no] cfm-burst

----[no] dscp-pbit

- **(name)**

----codepoint

- **(codepoint)**
- dot1p-value

----[no] dscp-tc

- **(name)**

----codepoint

- **(codepoint)**
- tc-value

----[no] policer-per-tc

- **(name)**

----tc-policer

- **(tc)**

- [no] policer
----[no] cos-threshold
- **(name)**
- [no] tc0-threshold
- [no] tc1-threshold
- [no] tc2-threshold
- [no] tc3-threshold
- [no] tc4-threshold
- [no] tc5-threshold
- [no] tc6-threshold
- [no] tc7-threshold

----global
- **(index)**
- [no] buffer-occ-thresh
- [no] queue-stats
- [no] dsload-tca
- [no] dsload-thresh
- [no] buffer-tca
- [no] up-buf-thresh
- [no] up-obc-thresh
- [no] dn-obc-thresh
- [no] dn-buf-thresh
- [no] part-buf-thresh

----tca
- **(index)**
- **queue**
- [no] tca-enable
- [no] load-thresh
- [no] dis-frame-th
- [no] qpeak-usage-th

----X dsl-port
- **(index)**
- [no] scheduler-profile
- cac-profile

----X queue
- **(queue)**
- queue-profile

----X shdsl-port
- **(index)**
- scheduler-profile
- cac-profile

----X queue
- **(queue)**
- queue-profile

----interface
- **(index)**
- [no] scheduler-node
- [no] ingress-profile
- [no] cac-profile
- [no] ext-cac
- [no] ds-queue-sharing
- [no] us-queue-sharing
- [no] ds-num-queue
- [no] ds-num-rem-queue
- [no] us-num-queue
- [no] queue-stats-on
- [no] autoschedule
- oper-weight
- oper-rate

- [no] us-vlanport-queue
- [no] dsfld-shaper-prof
- [no] bandwidth-profile
- [no] bandwidth-sharing
- [no] aggr-usq-profile
- [no] aggr-dsq-profile
- [no] gem-sharing
- [no] scheduler-mode
- [no] mc-scheduler-node
- [no] bc-scheduler-node
- [no] ds-schedule-tag

----queue

- **(queue)**
- priority
- weight
- oper-weight
- queue-profile
- shaper-profile

----upstream-queue

- **(queue)**
- [no] priority
- [no] weight
- [no] bandwidth-profile
- [no] ext-bw
- [no] bandwidth-sharing
- [no] queue-profile
- [no] shaper-profile

----ds-rem-queue

- **(queue)**
- [no] priority
- [no] weight

----[no] ctrl-pkt-policer

- **(protocol-id)**
- [no] sustained-rate
- [no] burst-size

----pbit-scheduling

- [no] sc-xcon-us
- [no] sc-xcon-dn
- [no] sc-rb-us
- [no] sc-rb-dn

----[no] up-ctrl-pkt

- **(protocol-id)**
- [no] dscp
- [no] pbit
- [no] tc

----[no] dn-ctrl-pkt

- **(protocol-id)**
- [no] dscp
- [no] pbit
- [no] tc

----upstr-prot-dsl

- [no] enable

21.2 QoS Configuration Command

Command Description

This command allows the operator to specify global QoS parameters.

The ATM overhead factor is used to calculate ATM bandwidth required by streams for which bandwidth parameters are specified as Ethernet bandwidth. The ATM overhead factor specifies in terms of percentage what part of a given raw ATM bit rate will be available for Ethernet frames. The default value is 85%, which means a typical overhead of 15% for ATM/AAL5. QoS management will use this value to deduct the available Ethernet rate on ATM-based DSL interfaces.

The Eth EFM overhead factor is used to calculate EFM bandwidth required by streams for which bandwidth parameters are specified as Ethernet bandwidth. The Eth EFM overhead factor specifies in terms of percentage what part of a given raw EFM bit rate will be available for Ethernet frames. The default value is 97%, which means a typical overhead of 3% for EFM Encapsulation.

The enable alignment is used to enable or disable the DSCP to P-bits alignment for all the L3 forwarded traffic.

The Global CAC-mode selection switch determines whether Connection Admission Control relies on the guaranteed sync rate or the actual line rate of the physical interface.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos [no atm-overhead-fact | atm-overhead-fact <Qos::AtmFactor>] [no eth-efm-fact | eth-efm-fact <Qos::EthEfmFactor>] [[no] enable-alignment] [no cac-mode | cac-mode <Qos::CacMode>] [[no] use-dei] [[no] set-dei]

Command Parameters

Table 21.2-2 "QoS Configuration Command" Command Parameters

Parameter	Type	Description
[no] atm-overhead-fact	Parameter type: <Qos::AtmFactor> Format: - over head factor introduced by atm layer - unit: % - range: [1...100]	*optional parameter with default value: 85* over head factor introduced by atm layer
[no] eth-efm-fact	Parameter type: <Qos::EthEfmFactor> Format: - value to estimate bandwidth overhead inserted by efm layer - unit: % - range: [1...100]	*optional parameter with default value: 97* value to estimate bandwidth overhead inserted by efm layer
[no] enable-alignment	Parameter type: boolean	*optional parameter* DSCP to P-bit alignment for all

Parameter	Type	Description
		forwarded L3 traffic
[no] cac-mode	Parameter type: <Qos::CacMode> Format: (nocac | msr | alr) Possible values: - nocac : no cac in system - msr : base on minimum synchronized rate - alr : base on actual line rate	*optional parameter with default value: "msr"* This object stores an global CAC mode selection switch
[no] use-dei	Parameter type: boolean	*optional parameter* Enable global control of DEI aware
[no] set-dei	Parameter type: boolean	*optional parameter* Enable global control of DEI remark

21.3 QoS 802.1P Class-to-Queue Mapping Configuration Command

Command Description

This command allows the operator to configure the downstream traffic class mapping table. This table defines which 802.1P codepoint is cast to which egress buffer on the L3 units.

There is a second class to the queue mapping table on the SHub/IHub, but this class is independent from the configuration perspective of this table. (See the traffic class configuration section for more information.) The second class is used mainly for upstream traffic segregation into egress buffers on the SHub/IHub.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos tc-map-dot1p (index) [queue <Qos::Queues>] [tc <Qos::QosTrafficClass>] [dpcolor <Qos::Color>] [policer-color <Qos::PolicerColor>]

Command Parameters

Table 21.3-1 "QoS 802.1P Class-to-Queue Mapping Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(index)	Format: - value of 802.1p field - range: [0...7]	value of 802.1p field

Table 21.3-2 "QoS 802.1P Class-to-Queue Mapping Configuration Command" Command Parameters

Parameter	Type	Description
queue	Parameter type: <Qos::Queues> Format: - output dsl/gpon/epon port queue number - range: [0...7,255]	*obsolete parameter replaced by parameter "tc"* output dsl port queue number
tc	Parameter type: <Qos::QosTrafficClass> Format: - the traffic class number - range: [0...7]	*optional parameter* the traffic class number
dpcolor	Parameter type: <Qos::Color> Format: (green | yellow)	*optional parameter* output discard precedence on queue

Parameter	Type	Description
	Possible values: - green : discard priority green in queue - yellow : discard priority yellow in queue	
policer-color	Parameter type: <Qos::PolicerColor> Format: (green | yellow | red) Possible values: - green : green color - yellow : yellow color - red : red color	*optional parameter* the frame colour for trtcm

21.4 QoS Dsl Control Pkt Policer Configuration Command

Command Description

This command allows the operator to configure a upstream QoS Dsl Control Packet Policer.This control packet policer serves to prevent DoS attacks from subscriber premises against the control plane of the ISAM. The policing parameters that can be configured are the sustainable rate in packets/sec and the maximum burst size in packets.

Control packets arriving at a higher rate then the sustainable rate are dropped by the policer.

Control packets arriving in a longer burst then the maximum burst size are dropped by the policer.

Control packets are packets directed to the LSM itself or inserted by the LSM. The control packet protocol type depends on the applied forwarding model, and can be 802.1x, ARP, RIP, DHCP, IGMP, PPPoEDiscovery , PPP LCP, PPP control, PPP LCP termination acknowledgement. Policing is not applied on control packets inserted by the LSM.

This command allows the operator to control the DSL line level control packet policer (enable or disable) for control protocol packets that remains in the data plane. And this feature is supported only for ARP and RIP protocol.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos dsl-ctrl-pkt-policer [no sustained-rate | sustained-rate <Qos::SustainedRate>] [no burst-size | burst-size <Qos::DslCtrlBurstSize>] [no protocol-ctrl | protocol-ctrl <Qos::ControlProtocolPolicerCtrl>]

Command Parameters

Table 21.4-2 "QoS Dsl Control Pkt Policer Configuration Command" Command Parameters

Parameter	Type	Description
[no] sustained-rate	Parameter type: <Qos::SustainedRate> Format: - the police rate of inc user pkts in pps - range: [1...64]	*optional parameter with default value: 15* max sustainable rate in packets/sec
[no] burst-size	Parameter type: <Qos::DslCtrlBurstSize> Format: - the burst size - range: [1...128]	*optional parameter with default value: 10* max burst size, in packets
[no] protocol-ctrl	Parameter type: <Qos::ControlProtocolPolicerCtrl> Format: (police-arprip | nopolice-arprip)	*optional parameter with default value: "police-arprip"* DSL control packet policer applicability for control protocol

Parameter	Type	Description
	Possible values: - police-arprip : police arp rip packets by the dsl-ctrl-policer if handled as data packet - nopolice-arprip : no police arp rip packets by the dsl-ctrl-policer if handled as data packet	packets that remain in data plane. Currently under this only ARP and RIP control packets are controlled.

21.5 QoS Nni Control Pkt Policer Configuration Command

Command Description

This command allows the operator to configure a upstream QoS Nni Control Packet Policer.This control packet policer serves to prevent DoS attacks from subscriber premises against the control plane of the ISAM. The policing parameters that can be configured are the sustainable rate in packets/sec and the maximum burst size in packets.

Control packets arriving at a higher rate then the sustainable rate are dropped by the policer.

Control packets arriving in a longer burst then the maximum burst size are dropped by the policer.

Control packets are packets directed to the LSM itself or inserted by the LSM. The control packet protocol type depends on the applied forwarding model, and can be 802.1x, ARP, RIP, DHCP, IGMP, PPPoEDiscovery , PPP LCP, PPP control, PPP LCP termination acknowledgement. Policing is not applied on control packets inserted by the LSM.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos nni-ctrl-pkt-policer [no sustained-rate | sustained-rate <Qos::NniSustainedRate>] [no burst-size | burst-size <Qos::NniCtrlBurstSize>]

Command Parameters

Table 21.5-2 "QoS Nni Control Pkt Policer Configuration Command" Command Parameters

Parameter	Type	Description
[no] sustained-rate	Parameter type: <Qos::NniSustainedRate> Format: - the police rate of inc user pkts in pps - range: [1...256]	*optional parameter with default value: 64* max sustainable rate in packets/sec
[no] burst-size	Parameter type: <Qos::NniCtrlBurstSize> Format: - the burst size - range: [1...256]	*optional parameter with default value: 128* max burst size, in packets

21.6 QoS DSCP-to-Dot1P Alignment for L3 Forwarded Traffic Configuration Command

Command Description

This command allows the operator to configure a DSCP-to-Dot1P Alignment Table for L3 forwarded traffic.This facility allows DSCP to P-bits alignment without the use of QoS session profiles via configuring a mapping table with global scope. It is only applied to traffic in interfaces with L3 forwarding.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos dscp-map-dot1p (index) [dot1p-value <Qos::DscpToDot1PAlign>]

Command Parameters

Table 21.6-1 "QoS DSCP-to-Dot1P Alignment for L3 Forwarded Traffic Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(index)	Format: - the DSCP value - range: [0...63]	the DSCP value

Table 21.6-2 "QoS DSCP-to-Dot1P Alignment for L3 Forwarded Traffic Configuration Command" Command Parameters

Parameter	Type	Description
dot1p-value	Parameter type: <Qos::DscpToDot1PAlign> Format: - the DOT1P value - range: [0...7]	*optional parameter* the DOT1P value

21.7 QoS Queue Profile Configuration Command

Command Description

This command allows the operator to configure a QoS queue profile. A queue profile or buffer acceptance control (BAC) profile contains configuration information on data plane queues. BAC profiles can be used on the L3 line cards.

Minimum and Maximum Threshold value for queues are given in packets.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos profiles (no queue (name)) | (queue (name) (bac-complex-type) [no unit | unit <Qos::Units>])

Command Parameters

Table 21.7-1 "QoS Queue Profile Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	A unique profile name

Table 21.7-2 "QoS Queue Profile Configuration Command" Command Parameters

Parameter	Type	Description
(bac-complex-type)	Format: (tail-drop : <Qos::MaxThreshold> | red : <Qos::MinThreshold> : <Qos::MaxThreshold> : <Qos::DiscardProbability> | twocolour-taildrop : <Qos::MaxThreshold> : <Qos::MaxThresholdYellow> | twocolourred : <Qos::MinThreshold> : <Qos::MaxThreshold> : <Qos::DiscardProbability> : <Qos::MinThresholdYellow> : <Qos::MaxThresholdYellow> : <Qos::DiscardProbYellow> | gpon-tail-drop : <Qos::MinThreshold> : <Qos::MaxThreshold> | threecolour-taildrop : <Qos::MaxThreshold> : <Qos::MaxThresholdYellow> : <Qos::MaxThresholdRed> | threecolour-red : <Qos::MinThreshold> : <Qos::MaxThreshold> : <Qos::DiscardProbability> : <Qos::MinThresholdYellow> : <Qos::MaxThresholdYellow> : <Qos::DiscardProbYellow>	*mandatory parameter* buffer acceptance control algorithm

Parameter	Type	Description
	: <Qos::MinThresholdRed> : <Qos::MaxThresholdRed> : <Qos::DiscardProbRed> | gpon-threecolour-red : <Qos::MinThreshold> : <Qos::MaxThreshold> : <Qos::DiscardProbability> : <Qos::MinThresholdYellow> : <Qos::MaxThresholdYellow> : <Qos::DiscardProbYellow> : <Qos::MinThresholdRed> : <Qos::MaxThresholdRed> : <Qos::DiscardProbRed> : <Qos::MinQueueSize> : <Qos::MaxQueueSize>) Possible values: - tail-drop : tail drop algorithm - red : random early detection algorithm - twocolour-taildrop : colour-aware tail drop algorithm - twocolourred : colour-aware random early detection algorithm - gpon-tail-drop : gpon tail drop algorithm - threecolour-taildrop : three colour aware tail drop algorithm - threecolour-red : three colour aware random early detection algorithm - gpon-threecolour-red : three colour aware random early detection algorithm with min and max queue sizes Field type <Qos::MinThreshold> - min threshold of green frames or min threshold of frames for RED type or min queue size for gpon-tail-drop: if unit is packet,range:[1..1048574] for gpon, [1..1398100] for non gpon,[1..681] for DSL,[1..1999] for ngvr; if unit is byte,range is [1..2147483646] for fibre bactypes,[1..1048575] for DSL bactypes,[1..3000319] for ngvr bactypes - range: [1...2147483646] Field type <Qos::MaxThreshold> - max threshold of green frames or max threshold of frames for RED type or max queue size for tail-drop/gpon-tail-drop: if unit is packet,range:[2..1048575] for gpon, [2..1398101] for non gpon,[2..682] for DSL, [2..2000] for ngvr;if unit is byte,range is [2..2147483647] for fibre bactypes, [2..1048576] for DSL bactypes; [2..3000320] for ngvr bactypes - range: [2...2147483647] Field type <Qos::DiscardProbability> - maximum discard probability of green frames - unit: % - range: [0...100] Field type <Qos::MinThresholdYellow> - min threshold for yellow frames: if unit is packet,range:[1..1048574] for gpon, [1..1398100] for non gpon,[1..681] for DSL,[1..1999] for ngvr; if unit is byte,range is [1..2147483646] for fibre bactypes,[1..1048575] for DSL bactypes,[1..3000319] for ngvr bactypes - range: [1...2147483646] Field type <Qos::MaxThresholdYellow> - max threshold for yellow frames: if unit is packet,range:[2..1048575] for gpon, [2..1398101] for non gpon,[2..682] for DSL, [2..2000] for ngvr;if unit is byte,range is [2..2147483647] for fibre bactypes,	

Parameter	Type	Description
	[2..1048576] for DSL bactypes; [2..3000320] for ngvr bactypes - range: [2...2147483647] Field type <Qos::DiscardProbYellow> - maximum discard probability of yellow frames - unit: % - range: [0...100] Field type <Qos::MinThresholdRed> - min threshold for red frames: if unit is packet,range:[1..1048574] for gpon, [1..1398100] for non gpon,[1..681] for DSL,[1..1999] for ngvr; if unit is byte,range is [1..2147483646] for fibre bactypes,[1..1048575] for DSL bactypes,[1..3000319] for ngvr bactypes - range: [1...2147483646] Field type <Qos::MaxThresholdRed> - max threshold for red frames: if unit is packet,range:[2..1048575] for gpon, [2..1398101] for non gpon,[2..682] for DSL, [2..2000] for ngvr;if unit is byte,range is [2..2147483647] for fibre bactypes, [2..1048576] for DSL bactypes; [2..3000320] for ngvr bactypes - range: [2...2147483647] Field type <Qos::DiscardProbRed> - maximum discard probability of red frames - unit: % - range: [0...100] Field type <Qos::MinQueueSize> - minimum guaranteed queue size : if unit is packet,range:[1..1048574] for gpon, [1..1398100] for non gpon,[1..1999] for ngvr; if unit is byte,range is [1..2147483646] for fibre bactypes,[1..3000319] for ngvr bactypes - range: [1...2147483646] Field type <Qos::MaxQueueSize> - maximum queue size: if unit is packet,range:[2..1048575] for gpon, [2..1398101] for non gpon,[2..2000] for ngvr;if unit is byte,range is [2..2147483647] for fibre bactypes,[2..3000320] for ngvr bactypes - range: [2...2147483647]	
[no] unit	Parameter type: <Qos::Units> Format: (packet | byte) Possible values: - packet : the unit of discard threshold is packet - byte : the unit of discard threshold is byte	*optional parameter with default value: "packet"* identify the threshold unit type

21.8 QoS Scheduler Node Profile Configuration Command

Command Description

This command allows the operator to configure a QoS scheduler node profile. The scheduler node profiles contain configuration settings for the data plane schedulers. These scheduler node profiles are applicable to downstream schedulers on the L3 line cards. The scheduler node settings on the service hub can be modified separately.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos profiles (no scheduler-node (name)) | (scheduler-node (name) priority <Qos::QosPriority> weight <Qos::QosWeight> shaper-profile <Qos::QosShaperProfileName> [no ext-shaper | ext-shaper <Qos::QosShaperProfileName>] [no mcast-inc-shape | mcast-inc-shape <Qos::QosMulticastInclShaping>])

Command Parameters

Table 21.8-1 "QoS Scheduler Node Profile Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	A unique profile name

Table 21.8-2 "QoS Scheduler Node Profile Configuration Command" Command Parameters

Parameter	Type	Description
priority	Parameter type: <Qos::QosPriority> Format: - relative priority - range: [1...8]	*mandatory parameter* relative priority of the scheduler-node
weight	Parameter type: <Qos::QosWeight> Format: - relative weight - range: [0...127]	*mandatory parameter* relative weight of the scheduler-node
shaper-profile	Parameter type: <Qos::QosShaperProfileName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associated - name : enter profile name to be associated	*mandatory parameter* the associated shaper profile. For EPON OLT in downstream, this profile used for LLID shaper on 1G PON bandwidth.

Parameter	Type	Description
	Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	
[no] ext-shaper	Parameter type: <Qos::QosShaperProfileName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associated - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* the associated shaper profile. For EPON OLT in downstream, this profile used for LLID shaper on 10G PON bandwidth.
[no] mcast-inc-shape	Parameter type: <Qos::QosMulticastInclShaping> Format: (mcast-shap-on | no-mcast-shap) Possible values: - mcast-shap-on : Downstream shaping includes Mcast - no-mcast-shap : Downstream shaping doesnot include Mcast	*optional parameter with default value: "false"* indicates whether downstream shaping includes Mcast

21.9 QoS CAC Profile Configuration Command

Command Description

This command allows the operator to configure a connection admission control (CAC) profile. CAC profiles are used primarily for multicast video admission control. CAC profiles can be attached to subscriber interfaces. The scope of a CAC profile is a DSL link (and not a PVC), regardless of the number of PVCs on a DSL link.

The system derives the line rate from the physical interfaces and calculates an estimate of the available Ethernet bandwidth using configurable overhead factors. The line rate taken into account may be the guaranteed sync rate or the actual line rate in case of DSL, based on a global configuration setting.

From this bandwidth, a part can be reserved for voice and data applications and the remaining part will be kept by the system as the available bandwidth for multicast video. Only preconfigured multicast streams are considered for CAC. Note that unicast video (regardless of whether it is premium content or generic Internet streaming video) is ignored by the CAC function.

The maximum bandwidth that video will occupy can be further confined using the maximum multicast bandwidth 'max-mcast-bandwidth' parameter.

CAC profiles are applicable to line cards, but not to SHub/IHub interfaces.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos profiles (no cac (name)) | (cac (name) res-voice-bandwidth <Qos::BandWidthKBPS> max-mcast-bandwidth <Qos::BandWidthKBPS> res-data-bandwidth <Qos::BandWidthKBPS> [no cac-type | cac-type <Qos::QosCacType>])

Command Parameters

Table 21.9-1 "QoS CAC Profile Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	A unique profile name

Table 21.9-2 "QoS CAC Profile Configuration Command" Command Parameters

Parameter	Type	Description
res-voice-bandwidth	Parameter type: <Qos::BandWidthKBPS> Format: - interface bandwidth - unit: kbps - range: [0...2147483647]	*mandatory parameter* reserved bandwidth for the voice services
max-mcast-bandwidth	Parameter type: <Qos::BandWidthKBPS>	*mandatory parameter*

Parameter	Type	Description
	Format: - interface bandwidth - unit: kbps - range: [0...2147483647]	maximum allowed bandwidth for multicast and unicast video service
res-data-bandwidth	Parameter type: <Qos::BandWidthKBPS> Format: - interface bandwidth - unit: kbps - range: [0...2147483647]	*mandatory parameter* reserved bandwidth for all data services
[no] cac-type	Parameter type: <Qos::QosCacType> Format: (dsl-cac | pon-cac | generic-pon-cac) Possible values: - dsl-cac : cac profile for dsl links - pon-cac : cac profile for pon interfaces obsolete alternative replaced by generic-pon-cac - generic-pon-cac : cac profile for epon gpon and ngpon2 interfaces	*optional parameter with default value: "dsl-cac"* cac-profile type

21.10 QoS Single Dot1P Marker Configuration Command

Command Description

This command allows the operator to configure a marker for singleDot1P.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos profiles marker (no d1p (name)) | (d1p (name) default-dot1p <Qos::ExtVlanSysPrio>)

Command Parameters

Table 21.10-1 "QoS Single Dot1P Marker Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	A unique profile name

Table 21.10-2 "QoS Single Dot1P Marker Configuration Command" Command Parameters

Parameter	Type	Description
default-dot1p	Parameter type: <Qos::ExtVlanSysPrio> Format: - the dot-1p bit value - range: [0...7]	*mandatory parameter* the default dot-1p bit value to be applied on all frames

21.11 QoS Single DSCP Marker Configuration Command

Command Description

This command allows the operator to configure a marker for a single DSCP.

All IP packets will be marked with the specified DSCP value. This marker type is incompatible with DSCP to P-bits alignment.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos profiles marker (no dscp (name)) | (dscp (name) default-dscp <Qos::DscpToDot1PAlignmentDscpIndex> [[no] alignment])

Command Parameters

Table 21.11-1 "QoS Single DSCP Marker Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	A unique profile name

Table 21.11-2 "QoS Single DSCP Marker Configuration Command" Command Parameters

Parameter	Type	Description
default-dscp	Parameter type: <Qos::DscpToDot1PAlignmentDscpIndex> Format: - the DSCP value - range: [0...63]	*mandatory parameter* the default DSCP value to be applied on all frames
[no] alignment	Parameter type: boolean	*optional parameter* enable DSCP to P-bits alignment

21.12 QoS DSCP Contract Table Marker Configuration Command

Command Description

*This command allows the operator to configure a marker for a DSCP contract table. To configure the DSCP codepoints in the contract table, the command "**configure qos profiles marker dscp-contract (name) codepoint (codepoint)**" is to be used.*

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos profiles marker (no dscp-contract (name)) | (dscp-contract (name) [[no] alignment])

Command Parameters

Table 21.12-1 "QoS DSCP Contract Table Marker Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	A unique profile name

Table 21.12-2 "QoS DSCP Contract Table Marker Configuration Command" Command Parameters

Parameter	Type	Description
[no] alignment	Parameter type: boolean	*optional parameter* enable DSCP to P-bits alignment

21.13 QoS DSCP Contract Table Code-point Configuration Command For DSCP-contract

Command Description

*This command allows the operator to configure codepoints in the DSCP contract table. To configure a marker, use the command "**configure qos profiles marker dscp-contract (name)**".*

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos profiles marker dscp-contract (name) codepoint (codepoint) [no dscp-value | dscp-value <Qos::DscpToDot1PAlignmentDscpIndex>]

Command Parameters

Table 21.13-1 "QoS DSCP Contract Table Code-point Configuration Command For DSCP-contract" Resource Parameters

Resource Identifier	Type	Description
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	A unique profile name
(codepoint)	Format: - the number of the DSCP codepoint - range: [0...63]	the value of the codepoint

Table 21.13-2 "QoS DSCP Contract Table Code-point Configuration Command For DSCP-contract" Command Parameters

Parameter	Type	Description
[no] dscp-value	Parameter type: <Qos::DscpToDot1PAlignmentDscpIndex> Format: - the DSCP value - range: [0...63]	*optional parameter with default value: 0L* the dscp value to be assigned to the codepoint

21.14 QoS Dot1P and DSCP Contract Table Marker Configuration Command

Command Description

*This command allows the operator to configure a marker for Dot1P and a DSCP contract table. To configure the DSCP codepoints in the contract table, the command "**configure qos profiles marker d1p-dscp-contract (name) codepoint (codepoint)**" is to be used.*

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos profiles marker (no d1p-dscp-contract (name)) | (d1p-dscp-contract (name) dot1p-value <Qos::ExtVlanSysPrio> [[no] alignment])

Command Parameters

Table 21.14-1 "QoS Dot1P and DSCP Contract Table Marker Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	A unique profile name

Table 21.14-2 "QoS Dot1P and DSCP Contract Table Marker Configuration Command" Command Parameters

Parameter	Type	Description
dot1p-value	Parameter type: <Qos::ExtVlanSysPrio> Format: - the dot-1p bit value - range: [0...7]	*mandatory parameter* the default dot-1p bit value to be applied on all frames
[no] alignment	Parameter type: boolean	*obsolete parameter that will be ignored* enable DSCP to P-bits alignment

21.15 DSCP Contract Table Codepoint Configuration Command For D1p-dscp-contract

Command Description

*This command allows the operator to configure codepoints for a DSCP contract table. To configure a Dot1P and DSCP contract table , use the command "**configure qos profiles marker d1p-dscp-contract (name)**".*

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos profiles marker d1p-dscp-contract (name) codepoint (codepoint) [no dscp-value | dscp-value <Qos::DscpToDot1PAlignmentDscpIndex>]

Command Parameters

Table 21.15-1 "DSCP Contract Table Codepoint Configuration Command For D1p-dscp-contract" Resource Parameters

Resource Identifier	Type	Description
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	A unique profile name
(codepoint)	Format: - the number of the DSCP codepoint - range: [0...63]	the number of the codepoint

Table 21.15-2 "DSCP Contract Table Codepoint Configuration Command For D1p-dscp-contract" Command Parameters

Parameter	Type	Description
[no] dscp-value	Parameter type: <Qos::DscpToDot1PAlignmentDscpIndex> Format: - the DSCP value - range: [0...63]	*optional parameter with default value: 0L* the dscp value to be assigned to the codepoint

21.16 QoS Dot1P and Single DSCP Marker Configuration Command

Command Description

This command allows the operator to configure a marker for Dot1P and single DSCP.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos profiles marker (no d1p-dscp (name)) | (d1p-dscp (name) default-dscp <Qos::DscpToDot1PAlignmentDscpIndex> default-dot1p <Qos::ExtVlanSysPrio>)

Command Parameters

Table 21.16-1 "QoS Dot1P and Single DSCP Marker Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	A unique profile name

Table 21.16-2 "QoS Dot1P and Single DSCP Marker Configuration Command" Command Parameters

Parameter	Type	Description
default-dscp	Parameter type: <Qos::DscpToDot1PAlignmentDscpIndex> Format: - the DSCP value - range: [0...63]	*mandatory parameter* the default DSCP value to be applied on all frames
default-dot1p	Parameter type: <Qos::ExtVlanSysPrio> Format: - the dot-1p bit value - range: [0...7]	*mandatory parameter* the default dot-1p bit value to be applied on all frames

21.17 QoS Dot1P Alignment Marker Configuration Command

Command Description

This command allows the operator to configure a marker for Dot1P alignment.

Default value for the global DSCP To Dot1P Alignment Table

DSCP Value	P-bit Value
0-7	*0*
8-15	*1*
16-23	*2*
24-31	*3*
32-39	*4*
40-47	*5*
48-55	*6*
56-63	*7*

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos profiles marker (no d1p-alignment (name)) | (d1p-alignment (name) (alignment) [no dscp-pbit-prof | dscp-pbit-prof <Qos::QosDscpToPbitProfileName>])

Command Parameters

Table 21.17-1 "QoS Dot1P Alignment Marker Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	A unique profile name

Table 21.17-2 "QoS Dot1P Alignment Marker Configuration Command" Command Parameters

Parameter	Type	Description
(alignment)	Format:	*mandatory parameter*

Parameter	Type	Description
	enable Possible values: - enable : enable dot1p alignment	enable dot1p alignment
[no] dscp-pbit-prof	Parameter type: <Qos::QosDscpToPbitProfileName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associate - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* Dscp to Pbit mapping profile name applicable on this marker

21.18 QoS Dot1P Remark Table Marker Configuration Command

Command Description

*This command allows the operator to configure a marker for a Dot1P Remark table. To configure the Dot1P Remark value in remark table, the command "**configure qos profiles marker dot1p-remark (name) dot1p-value (val) remark-value (val)**" is to be used.*

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos profiles marker (no dot1p-remark (name)) | (dot1p-remark (name))

Command Parameters

Table 21.18-1 "QoS Dot1P Remark Table Marker Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	A unique profile name

21.19 QoS Dot1P Remark Table Dot1p-value Configuration Command For Dot1P-Remark

Command Description

*This command allows the operator to configure remark dot1p value in the Dot1P Remark table. To configure the remark value in the Dot1P Remark table, use the command "**configure qos profiles marker dot1p-remark (name) dot1p-value (val) remark-value (val)**".*

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos profiles marker dot1p-remark (name) dot1p-value (dot1p-value) [no remark-value | remark-value <Qos::ExtVlanSysPrioNc>]

Command Parameters

Table 21.19-1 "QoS Dot1P Remark Table Dot1p-value Configuration Command For Dot1P-Remark" Resource Parameters

Resource Identifier	Type	Description
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	A unique profile name
(dot1p-value)	Format: - the dot-1p bit value - range: [0...7]	the dot1p value

Table 21.19-2 "QoS Dot1P Remark Table Dot1p-value Configuration Command For Dot1P-Remark" Command Parameters

Parameter	Type	Description
[no] remark-value	Parameter type: <Qos::ExtVlanSysPrioNc> Format: - the remarked dot-1p bit value (8 means no change) - range: [0...8]	*optional parameter with default value: 8L* the remarked dot1p value

21.20 QoS Policer Profile Configuration Command

Command Description

This command allows the operator to configure a QoS policer profile. A QoS policer profile contains all settings related to a policer. The ISAM supports single token bucket policers, where the action upon conformance is either pass or discard.

The L3 line cards units support both upstream and downstream policing. A policer profile can be used within a QoS session profile for upstream and downstream policing.

The L2 line cards units do not support policing.

The SHub/IHub supports ingress policing, but it does not use policer profiles. See the section about the QoS Ingress Policing Configuration Command to set up ingress policing on the SHub/IHub.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos profiles (no policer (name)) | (policer (name) committed-info-rate <Qos::CommittedInfoRate> committed-burst-size <Qos::CommittedBurstSize> [no policer-type | policer-type <Qos::PolicerType>] [no excess-info-rate | excess-info-rate <Qos::ExcessInfoRate >] [no excess-burst-size | excess-burst-size <Qos::ExcessBurstSize>] [no coupling-flag | coupling-flag <Qos::CouplingFlag>] [no color-mode | color-mode <Qos::ColorMode>] [no green-action | green-action <Qos::GreenAction>] [no yellow-action | yellow-action <Qos::YellowAction>] [no red-action | red-action <Qos::RedAction>] [no policed-size-ctrl | policed-size-ctrl <Qos::PoliceFrameCtrl>] [no peak-info-rate | peak-info-rate <Qos::PeakInfoRate>] [no peak-burst-size | peak-burst-size <Qos::PeakBurstSize>] [no cos-threshold | cos-threshold <Qos::QosCoSThresholdProfileName>])

Command Parameters

Table 21.20-1 "QoS Policer Profile Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	A unique profile name

Table 21.20-2 "QoS Policer Profile Configuration Command" Command Parameters

Parameter	Type	Description
committed-info-rate	Parameter type: <Qos::CommittedInfoRate> Format: - information rate - unit: kbps - range: [0...2147483647]	*mandatory parameter* committed information rate of a policer

Parameter	Type	Description
committed-burst-size	Parameter type: <Qos::CommittedBurstSize> Format: - committed burst size of a policer - unit: bytes - range: [0...134217728]	*mandatory parameter* committed burst size of a policer
[no] policer-type	Parameter type: <Qos::PolicerType> Format: (single-token-bucket | trtcm | trtcmwithcosrfc2698 | trtcmwithcosrfc4115) Possible values: - single-token-bucket : single token bucket - trtcm : trtcm Policer - trtcmwithcosrfc2698 : trTCMwithCoS RFC2698 policer - trtcmwithcosrfc4115 : trTCMwithCoS RFC4115 policer	*optional parameter with default value: "single-token-bucket"* *The parameter is not visible during modification.* the policer type
[no] excess-info-rate	Parameter type: <Qos::ExcessInfoRate > Format: - information rate - unit: kbps - range: [0...2147483647]	*optional parameter with default value: 0* excess information rate of a policer for trtcm
[no] excess-burst-size	Parameter type: <Qos::ExcessBurstSize> Format: - excess burst size of a policer - unit: bytes - range: [0...134217728]	*optional parameter with default value: 64* excess burst size of a policer for trtcm
[no] coupling-flag	Parameter type: <Qos::CouplingFlag> Format: (enable | disable) Possible values: - enable : enable - disable : disable	*optional parameter with default value: "disable"* the coupling flag of a policer for trtcm
[no] color-mode	Parameter type: <Qos::ColorMode> Format: (color-blind | color-aware) Possible values: - color-blind : color blind mode - color-aware : color aware mode	*optional parameter with default value: "color-blind"* the color mode of a policer for trtcm
[no] green-action	Parameter type: <Qos::GreenAction> Format: (pass | remark : <Aaa::IgnoredQosProfileName> | setouterdei) Possible values: - pass : pass - remark : remark - setouterdei : setOuterDEI Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "pass"* action for green packet of a policer for trtcm, marker profile for green packet
[no] yellow-action	Parameter type: <Qos::YellowAction> Format: (pass | discard	*optional parameter with default value: "pass"* action for yellow packet of a policer for trtcm, marker profile

Parameter	Type	Description
	| remark : <Aaa::IgnoredQosProfileName> | setouterdei) Possible values: - pass : pass - discard : discard - remark : remark - setouterdei : setOuterDEI Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	for yellow packet
[no] red-action	Parameter type: <Qos::RedAction> Format: (pass | discard | remark : <Aaa::IgnoredQosProfileName> | setouterdei) Possible values: - pass : pass - discard : discard - remark : remark - setouterdei : setOuterDEI Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "discard"* action for red packet of a policer for trtcm, marker profile for red packet
[no] policed-size-ctrl	Parameter type: <Qos::PoliceFrameCtrl> Format: (auto-controlled | ingress-mode | egress-mode | rmv4b-ingress) Possible values: - auto-controlled : backward compatibility for all LTs - ingress-mode : policer working with ingress packet size - egress-mode : policer working with egress packet size - rmv4b-ingress : policer working on packet size with 4 bytes removed from ingress	*optional parameter with default value: "auto-controlled"* control for policed frame size
[no] peak-info-rate	Parameter type: <Qos::PeakInfoRate> Format: - peak information rate, for RFC2698 - unit: kbps - range: [0...2147483647]	*optional parameter with default value: 0* peak information rate of a policer for trtcm
[no] peak-burst-size	Parameter type: <Qos::PeakBurstSize> Format: - peak burst size of a policer, for RFC2698 - unit: bytes - range: [0...134217728]	*optional parameter with default value: 0* peak burst size of a policer for trtcm
[no] cos-threshold	Parameter type: <Qos::QosCoSThresholdProfileName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associate - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration	*optional parameter with default value: "none"* cos threshold profile name applicable on the profile

Parameter	Type	Description
	and software. The currently allowed values can be shown with online-help.	

21.21 QoS L2 Filter Profile Configuration Command

Command Description

This command allows the operator to configure an L2 filter. The created L2 filter can be reused to build policy actions based on L2 filtering criteria, inside QoS session profiles.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos profiles (no l2-filter (name)) | (l2-filter (name) [no dst-mac-addr | dst-mac-addr <Qos::MacAddrAndMask>] [no src-mac-addr | src-mac-addr <Qos::MacAddrAndMask>] [no ethertype | ethertype <Qos::FilterEthernetType>] [no dot1p-priority | dot1p-priority <Qos::MatchDot1pValue>] [no canonical-format | canonical-format <Qos::FilterCfi>] [no vlan-id | vlan-id <Qos::FilterVlanId>])

Command Parameters

Table 21.21-1 "QoS L2 Filter Profile Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	A unique profile name

Table 21.21-2 "QoS L2 Filter Profile Configuration Command" Command Parameters

Parameter	Type	Description
[no] dst-mac-addr	Parameter type: <Qos::MacAddrAndMask> Format: <Qos::MacAddress> / <Qos::MacPrefixLength> Field type <Qos::MacAddress> - a mac-address (example : 01:02:03:04:05:06) - length: 6 Field type <Qos::MacPrefixLength> - the mac address prefix length - range: [0...48]	*optional parameter with default value: "00 : 00 : 00 : 00 : 00 : 00/0"* destination mac address to be matched with the packet
[no] src-mac-addr	Parameter type: <Qos::MacAddrAndMask> Format: <Qos::MacAddress> / <Qos::MacPrefixLength> Field type <Qos::MacAddress> - a mac-address (example : 01:02:03:04:05:06) - length: 6 Field type <Qos::MacPrefixLength> - the mac address prefix length - range: [0...48]	*optional parameter with default value: "00 : 00 : 00 : 00 : 00 : 00/0"* source mac address to be matched with the packet

Parameter	Type	Description
[no] ethertype	Parameter type: <Qos::FilterEthernetType> Format: (ip | x75 | nbs | ecma | chaos | x25 | arp | rarp | appletalk | snmp | loopback | pppoe-discovery | pppoe | ipv6 | all | <Qos::EtherType>) Possible values: - ip : ip - x75 : x75 - nbs : nbs - ecma : ecma - chaos : chaos - x25 : x25 - arp : arp - rarp : rarp - appletalk : appletalk - snmp : snmp - loopback : loopback - pppoe-discovery : pppoe-discovery - pppoe : pppoe - ipv6 : ipv6 - all : all ethtype values are considered a match Field type <Qos::EtherType> - ethertype value - range: [-1...65535]	*optional parameter with default value: "all"* ethernet type to be matched with the packet
[no] dot1p-priority	Parameter type: <Qos::MatchDot1pValue> Format: - dot1p value to be matched, -1 means match all - range: [-1...7]	*optional parameter with default value: -1L* dot1p value to be matched, -1 means match all
[no] canonical-format	Parameter type: <Qos::FilterCfi> Format: - canonical format indicator, -1 means match all - range: [-1...1]	*optional parameter with default value: -1L* canonical format indicator, -1 means match all
[no] vlan-id	Parameter type: <Qos::FilterVlanId> Format: - vlan id to be matched, -1 means match all - range: [-1...4095]	*optional parameter with default value: -1L* vlan id to be matched, -1 means match all

21.22 QoS L3 Filter Profile Configuration Command

Command Description

This command allows the operator to configure an L3 filter. The created L3 filter can be reused to build policy actions based on L3 filtering criteria, inside QoS session profiles.

DSCP mask is supported with defined L3-filter name with a prefix "DSCPMASKx_", 'x' must be 1~6, which means treat dscp-value as a last 'x' bits masking -The first 8 characters are UPPER CASE ALPHABETIC = DSCPMASK; and -The 9 character is NUMERICAL = {1, 2, 3, 4, 5, 6}; and -The 10 character is UNDERSCORE; -the remaining is configurable.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos profiles (no l3-filter (name)) | (l3-filter (name) [no filter-type | filter-type <Qos::L3FilterType>] [no dst-ip-addr | dst-ip-addr <Ip::AddressAndMaskFull>] [no src-ip-addr | src-ip-addr <Ip::AddressAndMaskFull>] [no dst-ipv6-addr | dst-ipv6-addr <ipv6::PrefixAndLength>] [no src-ipv6-addr | src-ipv6-addr <ipv6::PrefixAndLength>] [no min-dst-port | min-dst-port <Qos::L4PortNumber>] [no max-dst-port | max-dst-port <Qos::L4PortNumber>] [no min-src-port | min-src-port <Qos::L4PortNumber>] [no max-src-port | max-src-port <Qos::L4PortNumber>] [no dscp-value | dscp-value <Qos::MatchDscpValue>] [no protocol | protocol <Qos::Protocol>])

Command Parameters

Table 21.22-1 "QoS L3 Filter Profile Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	A unique profile name

Table 21.22-2 "QoS L3 Filter Profile Configuration Command" Command Parameters

Parameter	Type	Description
[no] filter-type	Parameter type: <Qos::L3FilterType> Format: (ipv4 | ipv6) Possible values: - ipv4 : ipv4 - ipv6 : ipv6	*optional parameter with default value: "ipv4"* *The parameter is not visible during modification.* L3 Filter type. Indicates to what kind of ip frames (ipv4 or ipv6) the L3 filter is applicable.
[no] dst-ip-addr	Parameter type: <Ip::AddressAndMaskFull> Format: <Ip::V4Address> / <Ip::PrefixLengthFull>	*optional parameter with default value: "0.0.0.0/0"* destination ipv4 address to be

Parameter	Type	Description
	Field type <Ip::V4Address> - IPv4-address Field type <Ip::PrefixLengthFull> - IP address prefix length - range: [0...32]	matched with the packet. Only applicable in case filterType is equal to ipv4.
[no] src-ip-addr	Parameter type: <Ip::AddressAndMaskFull> Format: <Ip::V4Address> / <Ip::PrefixLengthFull> Field type <Ip::V4Address> - IPv4-address Field type <Ip::PrefixLengthFull> - IP address prefix length - range: [0...32]	*optional parameter with default value: "0.0.0.0/0"* source ipv4 address to be matched with the packet. Only applicable in case filterType is equal to ipv4.
[no] dst-ipv6-addr	Parameter type: <ipv6::PrefixAndLength> Format: <ipv6::Prefix> / <ipv6::PrefixLength> Field type <ipv6::Prefix> - IPv6-address Field type <ipv6::PrefixLength> - length of IPv6 address or prefix - range: [0...128]	*optional parameter with default value: " : : /0"* destination ipv6 address to be matched with the packet. Only applicable in case filterType is equal to ipv6.
[no] src-ipv6-addr	Parameter type: <ipv6::PrefixAndLength> Format: <ipv6::Prefix> / <ipv6::PrefixLength> Field type <ipv6::Prefix> - IPv6-address Field type <ipv6::PrefixLength> - length of IPv6 address or prefix - range: [0...128]	*optional parameter with default value: " : : /0"* source ipv6 address to be matched with the packet. Only applicable in case filterType is equal to ipv6.
[no] min-dst-port	Parameter type: <Qos::L4PortNumber> Format: - the layer-4 port number - range: [0...65535]	*optional parameter with default value: 0L* minimum value of the layer-4 destination port number
[no] max-dst-port	Parameter type: <Qos::L4PortNumber> Format: - the layer-4 port number - range: [0...65535]	*optional parameter with default value: 65535L* maximum value of the layer-4 destination port number
[no] min-src-port	Parameter type: <Qos::L4PortNumber> Format: - the layer-4 port number - range: [0...65535]	*optional parameter with default value: 0L* minimum value of the layer-4 source port number
[no] max-src-port	Parameter type: <Qos::L4PortNumber> Format: - the layer-4 port number - range: [0...65535]	*optional parameter with default value: 65535L* maximum value of the layer-4 source port number
[no] dscp-value	Parameter type: <Qos::MatchDscpValue> Format: - dscp value to be matched, -1 means match all - range: [-1...63]	*optional parameter with default value: -1L* dscp value to be matched, -1 means match all
[no] protocol	Parameter type: <Qos::Protocol> Format: (egp | eigrp | gre | icmp | icmpv6 | igmp	*optional parameter with default value: "all"* protocol to be matched with the packet

Parameter	Type	Description
	| igrp | ip | ipinip | ipv6 | ipv6-frag | ipv6-hopopt | ipv6-nonxt | ipv6-opts | ipv6-route | ospf-igp | tcp | udp | rsvp | all | <Qos::ProtocolType>) Possible values: - egp : egp (IANA protocol number 8) - eigrp : eigrp (IANA protocol number 88) - gre : gre (IANA protocol number 47) - icmp : icmp (IANA protocol number 1) - icmpv6 : icmpv6 (IANA protocol number 58) - igmp : igmp (IANA protocol number 2) - igrp : igrp (IANA protocol number 9) - ip : ip (IANA protocol number 4) - ipinip : ipinip(protocol id should be 94) - ipv6 : ipv6 (IANA protocol number 41) - ipv6-frag : ipv6-frag (IANA protocol number 44) - ipv6-hopopt : ipv6-HOPOPT (IANA protocol number 0) - ipv6-nonxt : ipv6-NoNxt (IANA protocol number 59) - ipv6-opts : ipv6-opts (IANA protocol number 60) - ipv6-route : ipv6-route (IANA protocol number 43) - ospf-igp : ospf-igp (IANA protocol number 89) - tcp : tcp (IANA protocol number 6) - udp : udp (IANA protocol number 17) - rsvp : rsvp (IANA protocol number 46) - all : all are considered as match Field type <Qos::ProtocolType> - ip protocol value - range: [0...255]	

21.23 QoS Policy Action Profile Configuration Command

Command Description

This command allows the operator to configure a QoS policy action profile. A QoS policy action contains: discard packet, set a DSCP value, set a Dot1P value, policing with a policer, policer sharing,count attribute.

Dot1P and DSCP values are set to frames matched by the filter associated with this policy action.

The forwarding action for the frames matched by the filter can be discard or pass. The default forwarding action is pass. When the forwarding action is discard, the other policy actions in this entry will not be checked; the frame will be discarded immediately.

Policy sharing causes multiple QoS subflow with the same policy action profile to share their policer instance, in case they are set up within the same session profile in the same direction.

Count configures whether the traffic classified by filter needs to be counted. Count means enable to count the traffic classified by filter, no count means disable to count the traffic classified by the filter. Default value is no count.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos profiles (no policy-action (name)) | (policy-action (name) [no dscp-value | dscp-value <Qos::SetDscpValue>] [no dot1p-value | dot1p-value <Qos::SetDot1pValue>] [[no] discard-packet] [[no] shared-policer] [no policer-profile | policer-profile <Qos::QosPolicerProfileName>] [[no] count] [no mirror-vlan | mirror-vlan <Qos::PolicyActionMirrorVlan>] [no tc-value | tc-value <Qos::tcvalue>])

Command Parameters

Table 21.23-1 "QoS Policy Action Profile Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	A unique profile name

Table 21.23-2 "QoS Policy Action Profile Configuration Command" Command Parameters

Parameter	Type	Description
[no] dscp-value	Parameter type: <Qos::SetDscpValue> Format: - dscp value set in a matched packet, -1 means no change - range: [-1...63]	*optional parameter with default value: -1L* dscp value set in a matched packet, -1 means no change

Parameter	Type	Description
[no] dot1p-value	Parameter type: <Qos::SetDot1pValue> Format: - dot1p value set in a matched packet, -1 means no change - range: [-1...7]	*optional parameter with default value: -1L* dot1p value set in a matched packet, -1 means no change
[no] discard-packet	Parameter type: boolean	*optional parameter* discard the packet matching the policy
[no] shared-policer	Parameter type: boolean	*optional parameter* enable the sharing policer instances among subflows
[no] policer-profile	Parameter type: <Qos::QosPolicerProfileName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associate - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* policer used to the packet matching the policy
[no] count	Parameter type: boolean	*optional parameter* enable to count traffic classified by filter
[no] mirror-vlan	Parameter type: <Qos::PolicyActionMirrorVlan> Format: - vlan id for mirror, 0 means no mirror - range: [0...4093]	*optional parameter with default value: 0L* vlan id for mirror, 0 means no mirror
[no] tc-value	Parameter type: <Qos::tcvalue> Format: - traffic class value range - range: [-1...7]	*optional parameter with default value: -1L* tc value to map the queue for matched packet, -1 means no change

21.24 QoS Policy Profile Configuration Command

Command Description

This command allows the operator to configure a QoS policy profile. A policy rule groups together a policy condition (filter) with a set of associated actions. A policy rule contains:

- *Filter type (L2 filter or L3 filter)*
- *L2 or L3 filter*
- *Precedence of this policy rule*
- *Policy action*

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos profiles (no policy (name)) | (policy (name) filter <Qos::PolicyFilter> [no precedence | precedence <Qos::PolicyPrecedence>] [no policy-action | policy-action <Qos::QosPolicyActionProfileName>])

Command Parameters

Table 21.24-1 "QoS Policy Profile Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	A unique profile name

Table 21.24-2 "QoS Policy Profile Configuration Command" Command Parameters

Parameter	Type	Description
filter	Parameter type: <Qos::PolicyFilter> Format: (l2-name : <Qos::IgnoredQosProfileName> | l3-name : <Qos::IgnoredQosProfileName>) Possible values: - l2-name : refer to a l2 filter - l3-name : refer to a l3 filter Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help. Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*mandatory parameter* the filter for the policy rule

Parameter	Type	Description
[no] precedence	Parameter type: <Qos::PolicyPrecedence> Format: - the precedence value of the policy rule - range: [0...255]	*optional parameter with default value: 10L* precedence value of the policy rule
[no] policy-action	Parameter type: <Qos::QosPolicyActionProfileName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associate - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* policy action profile applicable for the policy

21.25 QoS Session Profile Configuration Command

Command Description

This commmand allows the operator to configure the QoS session profile. The QoS session profile is the main building block for conveying user traffic contractual rights and treatment. The QoS session profile is a "macro"-profile, which consists of individual settings as well as references to smaller profiles.

A QoS session profile is composed of
- *a logical flow type,*
- *a marker profile,*
- *two policer profiles for up and downstream policing,*
- *two lists for upstream and downstream policy conditions and actions.*
- *tag selection for downstream scheduler.*

The logical flow type is a legacy parameter which is ignored. Any value is interpreted as "Generic", that is, the QoS session profile can be attached to any interface. If the QoS session profile contains settings that are not supported on the interface, then these are silently ignored by the system.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos profiles (no session (name)) | (session (name) logical-flow-type <Qos::LogicalFlowType> [no up-policer | up-policer <Qos::QosPolicerProfileName>] [no down-policer | down-policer <Qos::QosPolicerProfileName>] [no up-marker | up-marker <Qos::QosMarkerProfileName>] [no ing-outer-marker | ing-outer-marker <Qos::QosMarkerProfileName>] [no ds-schedule-tag | ds-schedule-tag <Qos::DsSchedulerProfileTag>] [no up-policer-per-tc | up-policer-per-tc <Qos::QosPolicerPerTCProfileName>] [no up-dscptotc-prof | up-dscptotc-prof <Qos::QosDscpToTcProfileName>] [no dn-dscptotc-prof | dn-dscptotc-prof <Qos::QosDscpToTcProfileName>] [no up-pbittotc-prof | up-pbittotc-prof <Qos::QosPbitToTcProfileName>] [no dn-pbittotc-prof | dn-pbittotc-prof <Qos::QosPbitToTcProfileName>] [no up-default-tc | up-default-tc <Qos::tcvalue>] [no dn-default-tc | dn-default-tc <Qos::tcvalue>])

Command Parameters

Table 21.25-1 "QoS Session Profile Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	A unique profile name

Table 21.25-2 "QoS Session Profile Configuration Command" Command Parameters

Parameter	Type	Description
logical-flow-type	Parameter type: <Qos::LogicalFlowType>	*mandatory parameter*

Parameter	Type	Description
	Format: (generic | pvc | dot-1x-session | pvc-vlan-combination | ppp-session | ip-session | ipoe-vlan-cc | pppoe-vlan-cc | ipoa-cc | pppoa-cc | ipoe-ibridge | pppoe-ibridge | pppoa-relay | pppoe-relay | ipoe-ip-aware-bridge | ipoa-ip-aware-bridge | ipoa) Possible values: - generic : any defined logical flow - pvc : all frames on a pvc - dot-1x-session : frames on a pvc except ppp frames - pvc-vlan-combination : frames on dot-1D port with the same vlan-id - ppp-session : all frames on a ppp session - ip-session : all frames in an IP session or interface - ipoe-vlan-cc : all ipoe frames in a vlan cc interface - pppoe-vlan-cc : all pppoe frames in a vlan cc interface - ipoa-cc : all ipoa frames in a ipoa cc interface(replaced by ipoa) - pppoa-cc : all pppoa frames in a pppoa cc interface - ipoe-ibridge : all ipoe frames in i-bridge interface - pppoe-ibridge : all pppoe frames in i-bridge interface - pppoa-relay : pppoa frames in pppoa relay interface - pppoe-relay : all pppoe frames in pppoe relay - ipoe-ip-aware-bridge : ipoe frames in ip aware bridge interface - ipoa-ip-aware-bridge : all ipoa frames in ip aware bridge interface(replaced by ipoa) - ipoa : all ipoa frames in a ipoa interface	a traffic stream up on which policy to be made. Important note: this mandatory parameter is depreciated. No distinction is made any more between the different flow types : independent on what is configured, generic is used.
[no] up-policer	Parameter type: <Qos::QosPolicerProfileName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associate - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* policer profile name applicable on this session upstream
[no] down-policer	Parameter type: <Qos::QosPolicerProfileName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associate	*optional parameter with default value: "none"* policer profile applicable on this session downstream

Parameter	Type	Description
	- name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	
[no] up-marker	Parameter type: <Qos::QosMarkerProfileName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associate - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* marker profile name applicable on this session upstream
[no] ing-outer-marker	Parameter type: <Qos::QosMarkerProfileName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associate - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* outer marker profile name applicable on this session ingress
[no] ds-schedule-tag	Parameter type: <Qos::DsSchedulerProfileTag> Format: (system-default | cvlantag | svlantag) Possible values: - system-default : system default behavior: always the egress outer tag used. - cvlantag : Select downstream scheduler based on the c-vlan. - svlantag : Select downstream scheduler based on the s-vlan.	*optional parameter with default value: "system-default"* specifies downstream scheduler tag
[no] up-policer-per-tc	Parameter type: <Qos::QosPolicerPerTCProfileName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associate - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* policer-per-tc profile name applicable on this session upstream
[no] up-dscptotc-prof	Parameter type: <Qos::QosDscpToTcProfileName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associate - name : enter profile name to be associated	*optional parameter with default value: "none"* dscp to tc qos profile name applicable on this session in upstream

Parameter	Type	Description
	Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	
[no] dn-dscptotc-prof	Parameter type: <Qos::QosDscpToTcProfileName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associate - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* dscp to tc qos profile name applicable on this session in downstream
[no] up-pbittotc-prof	Parameter type: <Qos::QosPbitToTcProfileName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associate - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* pbit to tc qos profile name applicable on this session in upstream
[no] dn-pbittotc-prof	Parameter type: <Qos::QosPbitToTcProfileName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associate - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* pbit to tc qos profile name applicable on this session in downstream
[no] up-default-tc	Parameter type: <Qos::tcvalue> Format: - traffic class value range - range: [-1...7]	*optional parameter with default value: -1L* tc mapping for non ip packet applicable on this session in upstream
[no] dn-default-tc	Parameter type: <Qos::tcvalue> Format: - traffic class value range - range: [-1...7]	*optional parameter with default value: -1L* tc mapping for non ip packet applicable on this session in downstream

21.26 QoS Session Upstream Policy List Configuration Command

Command Description

This command allows the operator to configure a list of upstream policies in a QoS session profile. However the number of these policy rules are hardware dependent.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos profiles session (name) (no up-policy (name)) | (up-policy (name))

Command Parameters

Table 21.26-1 "QoS Session Upstream Policy List Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	A unique profile name
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	policy profile name applicable

21.27 QoS Session Downstream Policy List Configuration Command

Command Description

This command allows the operator to configure a list of downstream policies in a QoS session profile.However the number of these policy rules are hardware dependent.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos profiles session (name) (no down-policy (name)) | (down-policy (name))

Command Parameters

Table 21.27-1 "QoS Session Downstream Policy List Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	A unique profile name
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	policy profile name applicable

21.28 QoS Session remote Upstream Policy List Configuration Command

Command Description

This command allows the operator to configure a list of remote side upstream policies in a QoS session profile.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos profiles session (name) (no rem-up-policy (name)) | (rem-up-policy (name))

Command Parameters

Table 21.28-1 "QoS Session remote Upstream Policy List Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	A unique profile name
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	policy profile name applicable

21.29 QoS Session Remote Downstream Policy List Configuration Command

Command Description

This command allows the operator to configure a list of remote side downstream policies in a QoS session profile.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos profiles session (name) (no rem-down-policy (name)) | (rem-down-policy (name))

Command Parameters

Table 21.29-1 "QoS Session Remote Downstream Policy List Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	A unique profile name
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	policy profile name applicable

21.30 QoS AggrQueuesConfig Profile Configuration Command

Command Description

This command allows the operator to configure a QoS AggrQueuesConfig profile.The AggrQueuesConfig Profile table stores the attributes of 8 queues of one UNI.These AggrQueuesConfig profiles are applicable to qos interface for UNI Upstream and Downstream.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos profiles (no aggrqueuesconfig (name)) | (aggrqueuesconfig (name) [no q0-priority | q0-priority <Qos::Qpriority_0>] [no q1-priority | q1-priority <Qos::Qpriority_1>] [no q2-priority | q2-priority <Qos::Qpriority_2>] [no q3-priority | q3-priority <Qos::Qpriority_3>] [no q4-priority | q4-priority <Qos::Qpriority_4>] [no q5-priority | q5-priority <Qos::Qpriority_5>] [no q6-priority | q6-priority <Qos::Qpriority_6>] [no q7-priority | q7-priority <Qos::Qpriority_7>] [no q0-weight | q0-weight <Qos::QosWeight>] [no q1-weight | q1-weight <Qos::QosWeight>] [no q2-weight | q2-weight <Qos::QosWeight>] [no q3-weight | q3-weight <Qos::QosWeight>] [no q4-weight | q4-weight <Qos::QosWeight>] [no q5-weight | q5-weight <Qos::QosWeight>] [no q6-weight | q6-weight <Qos::QosWeight>] [no q7-weight | q7-weight <Qos::QosWeight>] [no q0-shaper-prof | q0-shaper-prof <Qos::QosShaperProfileName>] [no q1-shaper-prof | q1-shaper-prof <Qos::QosShaperProfileName>] [no q2-shaper-prof | q2-shaper-prof <Qos::QosShaperProfileName>] [no q3-shaper-prof | q3-shaper-prof <Qos::QosShaperProfileName>] [no q4-shaper-prof | q4-shaper-prof <Qos::QosShaperProfileName>] [no q5-shaper-prof | q5-shaper-prof <Qos::QosShaperProfileName>] [no q6-shaper-prof | q6-shaper-prof <Qos::QosShaperProfileName>] [no q7-shaper-prof | q7-shaper-prof <Qos::QosShaperProfileName>] [no q0-queue-prof | q0-queue-prof <Qos::QosQueueProfName>] [no q1-queue-prof | q1-queue-prof <Qos::QosQueueProfName>] [no q2-queue-prof | q2-queue-prof <Qos::QosQueueProfName>] [no q3-queue-prof | q3-queue-prof <Qos::QosQueueProfName>] [no q4-queue-prof | q4-queue-prof <Qos::QosQueueProfName>] [no q5-queue-prof | q5-queue-prof <Qos::QosQueueProfName>] [no q6-queue-prof | q6-queue-prof <Qos::QosQueueProfName>] [no q7-queue-prof | q7-queue-prof <Qos::QosQueueProfName>] [no q0-bandwidth-prof | q0-bandwidth-prof <Qos::QosBandwidthProfileName>] [no q1-bandwidth-prof | q1-bandwidth-prof <Qos::QosBandwidthProfileName>] [no q2-bandwidth-prof | q2-bandwidth-prof <Qos::QosBandwidthProfileName>] [no q3-bandwidth-prof | q3-bandwidth-prof <Qos::QosBandwidthProfileName>] [no q4-bandwidth-prof | q4-bandwidth-prof <Qos::QosBandwidthProfileName>] [no q5-bandwidth-prof | q5-bandwidth-prof <Qos::QosBandwidthProfileName>] [no q6-bandwidth-prof | q6-bandwidth-prof <Qos::QosBandwidthProfileName>] [no q7-bandwidth-prof | q7-bandwidth-prof <Qos::QosBandwidthProfileName>] [no q0-bw-sharing | q0-bw-sharing <Qos::BandwidthSharing_0>] [no q1-bw-sharing | q1-bw-sharing <Qos::BandwidthSharing_1>] [no q2-bw-sharing | q2-bw-sharing <Qos::BandwidthSharing_2>] [no q3-bw-sharing | q3-bw-sharing <Qos::BandwidthSharing_3>] [no q4-bw-sharing | q4-bw-sharing <Qos::BandwidthSharing_4>] [no q5-bw-sharing | q5-bw-sharing <Qos::BandwidthSharing_5>] [no q6-bw-sharing | q6-bw-sharing <Qos::BandwidthSharing_6>] [no q7-bw-sharing | q7-bw-sharing <Qos::BandwidthSharing_7>])

Command Parameters

Table 21.30-1 "QoS AggrQueuesConfig Profile Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	A unique profile name

Table 21.30-2 "QoS AggrQueuesConfig Profile Configuration Command" Command Parameters

Parameter	Type	Description
[no] q0-priority	Parameter type: <Qos::Qpriority_0> Format: - priority corresponding to queue 0 - range: [1...8]	*optional parameter with default value: 1* priority corresponding to queue 0
[no] q1-priority	Parameter type: <Qos::Qpriority_1> Format: - priority corresponding to queue 1 - range: [1...8]	*optional parameter with default value: 1* priority corresponding to queue 1
[no] q2-priority	Parameter type: <Qos::Qpriority_2> Format: - priority corresponding to queue 2 - range: [1...8]	*optional parameter with default value: 1* priority corresponding to queue 2
[no] q3-priority	Parameter type: <Qos::Qpriority_3> Format: - priority corresponding to queue 3 - range: [1...8]	*optional parameter with default value: 1* priority corresponding to queue 3
[no] q4-priority	Parameter type: <Qos::Qpriority_4> Format: - priority corresponding to queue 4 - range: [1...8]	*optional parameter with default value: 1* priority corresponding to queue 4
[no] q5-priority	Parameter type: <Qos::Qpriority_5> Format: - priority corresponding to queue 5 - range: [1...8]	*optional parameter with default value: 1* priority corresponding to queue 5
[no] q6-priority	Parameter type: <Qos::Qpriority_6> Format: - priority corresponding to queue 6 - range: [1...8]	*optional parameter with default value: 1* priority corresponding to queue 6
[no] q7-priority	Parameter type: <Qos::Qpriority_7> Format: - priority corresponding to queue 7 - range: [1...8]	*optional parameter with default value: 1* priority corresponding to queue 7
[no] q0-weight	Parameter type: <Qos::QosWeight> Format: - relative weight - range: [0...127]	*optional parameter with default value: 1* relative weight of the queue 0
[no] q1-weight	Parameter type: <Qos::QosWeight> Format: - relative weight - range: [0...127]	*optional parameter with default value: 1* relative weight of the queue 1
[no] q2-weight	Parameter type: <Qos::QosWeight> Format: - relative weight - range: [0...127]	*optional parameter with default value: 1* relative weight of the queue 2
[no] q3-weight	Parameter type: <Qos::QosWeight>	*optional parameter with default*

Parameter	Type	Description
	Format: - relative weight - range: [0...127]	*value: 1* relative weight of the queue 3
[no] q4-weight	Parameter type: <Qos::QosWeight> Format: - relative weight - range: [0...127]	*optional parameter with default value: 1* relative weight of the queue 4
[no] q5-weight	Parameter type: <Qos::QosWeight> Format: - relative weight - range: [0...127]	*optional parameter with default value: 1* relative weight of the queue 5
[no] q6-weight	Parameter type: <Qos::QosWeight> Format: - relative weight - range: [0...127]	*optional parameter with default value: 1* relative weight of the queue 6
[no] q7-weight	Parameter type: <Qos::QosWeight> Format: - relative weight - range: [0...127]	*optional parameter with default value: 1* relative weight of the queue 7
[no] q0-shaper-prof	Parameter type: <Qos::QosShaperProfileName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associated - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* the associated queue 0 shaper profile.
[no] q1-shaper-prof	Parameter type: <Qos::QosShaperProfileName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associated - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* the associated queue 1 shaper profile.
[no] q2-shaper-prof	Parameter type: <Qos::QosShaperProfileName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associated - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* the associated queue 2 shaper profile.
[no] q3-shaper-prof	Parameter type: <Qos::QosShaperProfileName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values:	*optional parameter with default value: "none"* the associated queue 3 shaper profile.

Parameter	Type	Description
	- none : no profile name to associated - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	
[no] q4-shaper-prof	Parameter type: <Qos::QosShaperProfileName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associated - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* the associated queue 4 shaper profile.
[no] q5-shaper-prof	Parameter type: <Qos::QosShaperProfileName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associated - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* the associated queue 5 shaper profile.
[no] q6-shaper-prof	Parameter type: <Qos::QosShaperProfileName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associated - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* the associated queue 6 shaper profile.
[no] q7-shaper-prof	Parameter type: <Qos::QosShaperProfileName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associated - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* the associated queue 7 shaper profile.
[no] q0-queue-prof	Parameter type: <Qos::QosQueueProfName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associated - name : enter profile name to be associated	*optional parameter with default value: "none"* name of the queue 0 queue profile

Parameter	Type	Description
	Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	
[no] q1-queue-prof	Parameter type: <Qos::QosQueueProfName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associated - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* name of the queue 1 queue profile
[no] q2-queue-prof	Parameter type: <Qos::QosQueueProfName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associated - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* name of the queue 2 queue profile
[no] q3-queue-prof	Parameter type: <Qos::QosQueueProfName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associated - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* name of the queue 3 queue profile
[no] q4-queue-prof	Parameter type: <Qos::QosQueueProfName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associated - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* name of the queue 4 queue profile
[no] q5-queue-prof	Parameter type: <Qos::QosQueueProfName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associated - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration	*optional parameter with default value: "none"* name of the queue 5 queue profile

Parameter	Type	Description
	and software. The currently allowed values can be shown with online-help.	
[no] q6-queue-prof	Parameter type: <Qos::QosQueueProfName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associated - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* name of the queue 6 queue profile
[no] q7-queue-prof	Parameter type: <Qos::QosQueueProfName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associated - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* name of the queue 7 queue profile
[no] q0-bandwidth-prof	Parameter type: <Qos::QosBandwidthProfileName> Format: (name : <Qos::IgnoredQosProfileName> | none) Possible values: - none : no profile name to associate - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* the name of the queue 0 bandwidth profile.
[no] q1-bandwidth-prof	Parameter type: <Qos::QosBandwidthProfileName> Format: (name : <Qos::IgnoredQosProfileName> | none) Possible values: - none : no profile name to associate - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* the name of the queue 1 bandwidth profile.
[no] q2-bandwidth-prof	Parameter type: <Qos::QosBandwidthProfileName> Format: (name : <Qos::IgnoredQosProfileName> | none) Possible values: - none : no profile name to associate - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* the name of the queue 2 bandwidth profile.

Parameter	Type	Description
[no] q3-bandwidth-prof	Parameter type: <Qos::QosBandwidthProfileName> Format: (name : <Qos::IgnoredQosProfileName> | none) Possible values: - none : no profile name to associate - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* the name of the queue 3 bandwidth profile.
[no] q4-bandwidth-prof	Parameter type: <Qos::QosBandwidthProfileName> Format: (name : <Qos::IgnoredQosProfileName> | none) Possible values: - none : no profile name to associate - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* the name of the queue 4 bandwidth profile.
[no] q5-bandwidth-prof	Parameter type: <Qos::QosBandwidthProfileName> Format: (name : <Qos::IgnoredQosProfileName> | none) Possible values: - none : no profile name to associate - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* the name of the queue 5 bandwidth profile.
[no] q6-bandwidth-prof	Parameter type: <Qos::QosBandwidthProfileName> Format: (name : <Qos::IgnoredQosProfileName> | none) Possible values: - none : no profile name to associate - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* the name of the queue 6 bandwidth profile.
[no] q7-bandwidth-prof	Parameter type: <Qos::QosBandwidthProfileName> Format: (name : <Qos::IgnoredQosProfileName> | none) Possible values: - none : no profile name to associate - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* the name of the queue 7 bandwidth profile.
[no] q0-bw-sharing	Parameter type: <Qos::BandwidthSharing_0> Format:	*optional parameter with default value: "no-sharing"*

Parameter	Type	Description
	(no-sharing | uni-sharing | ont-sharing) Possible values: - no-sharing : disable bandwith sharing - uni-sharing : enable BW or TCONT sharing on a single UNI - ont-sharing : enable BW or TCONT sharing on across UNIs of an ONT	enable or disable queue 0 bandwidth sharing
[no] q1-bw-sharing	Parameter type: <Qos::BandwidthSharing_1> Format: (no-sharing | uni-sharing | ont-sharing) Possible values: - no-sharing : disable bandwidth sharing - uni-sharing : enable BW or TCONT sharing on a single UNI - ont-sharing : enable BW or TCONT sharing on across UNIs of an ONT	*optional parameter with default value: "no-sharing"* enable or disable queue 1 bandwidth sharing
[no] q2-bw-sharing	Parameter type: <Qos::BandwidthSharing_2> Format: (no-sharing | uni-sharing | ont-sharing) Possible values: - no-sharing : disable bandwidth sharing - uni-sharing : enable BW or TCONT sharing on a single UNI - ont-sharing : enable BW or TCONT sharing on across UNIs of an ONT	*optional parameter with default value: "no-sharing"* enable or disable queue 2 bandwidth sharing
[no] q3-bw-sharing	Parameter type: <Qos::BandwidthSharing_3> Format: (no-sharing | uni-sharing | ont-sharing) Possible values: - no-sharing : disable bandwidth sharing - uni-sharing : enable BW or TCONT sharing on a single UNI - ont-sharing : enable BW or TCONT sharing on across UNIs of an ONT	*optional parameter with default value: "no-sharing"* enable or disable queue 3 bandwidth sharing
[no] q4-bw-sharing	Parameter type: <Qos::BandwidthSharing_4> Format: (no-sharing | uni-sharing | ont-sharing) Possible values: - no-sharing : disable bandwidth sharing - uni-sharing : enable BW or TCONT sharing on a single UNI - ont-sharing : enable BW or TCONT sharing on across UNIs of an ONT	*optional parameter with default value: "no-sharing"* enable or disable queue 4 bandwidth sharing
[no] q5-bw-sharing	Parameter type: <Qos::BandwidthSharing_5> Format: (no-sharing | uni-sharing	*optional parameter with default value: "no-sharing"* enable or disable queue 5 bandwidth sharing

Parameter	Type	Description
	| ont-sharing) Possible values: - no-sharing : disable bandwidth sharing - uni-sharing : enable BW or TCONT sharing on a single UNI - ont-sharing : enable BW or TCONT sharing on across UNIs of an ONT	
[no] q6-bw-sharing	Parameter type: <Qos::BandwidthSharing_6> Format: (no-sharing | uni-sharing | ont-sharing) Possible values: - no-sharing : disable bandwidth sharing - uni-sharing : enable BW or TCONT sharing on a single UNI - ont-sharing : enable BW or TCONT sharing on across UNIs of an ONT	*optional parameter with default value: "no-sharing"* enable or disable queue 6 bandwidth sharing
[no] q7-bw-sharing	Parameter type: <Qos::BandwidthSharing_7> Format: (no-sharing | uni-sharing | ont-sharing) Possible values: - no-sharing : disable bandwidth sharing - uni-sharing : enable BW or TCONT sharing on a single UNI - ont-sharing : enable BW or TCONT sharing on across UNIs of an ONT	*optional parameter with default value: "no-sharing"* enable or disable queue 7 bandwidth sharing

21.31 QoS Shaper Profile Configuration Command

Command Description

This command allows the operator to configure a QoS shaper profile. A QoS shaper profile contains all settings related to a shaper. The ISAM supports single token bucket shapers. EIR is only applicable if shaper type is singleTokenBucketGpon. CBS is applicable only if the shaper type is singleTokenBucket.

The L2+ line cards support shaping on queue.

1. GPON supports EIR and CIR. If CBS is non-zero for GPON; CLI will return an error.

2. DSL doesn't support EIR. So if user enters non-zero for EIR for DSL; CLI will return an error.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos profiles (no shaper (name)) | (shaper (name) committed-info-rate <Qos::ShaperCommittedInfoRate> committed-burst-size <Qos::ShaperCommittedBurstSizeNew> [no excess-info-rate | excess-info-rate <Qos::ShaperExcessiveInfoRate>] [no type | type <Qos::ShaperType>] [no autoshape | autoshape <Qos::AutoShape>])

Command Parameters

Table 21.31-1 "QoS Shaper Profile Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	A unique profile name

Table 21.31-2 "QoS Shaper Profile Configuration Command" Command Parameters

Parameter	Type	Description
committed-info-rate	Parameter type: <Qos::ShaperCommittedInfoRate> Format: - committed information rate of a shaper - unit: kbps - range: [0...2147483647]	*mandatory parameter* committed information rate of a shaper
committed-burst-size	Parameter type: <Qos::ShaperCommittedBurstSizeNew> Format: - committed burst size of shaper - unit: byte - range: [0,64...2147483647]	*mandatory parameter* committed burst size of shaper
[no] excess-info-rate	Parameter type: <Qos::ShaperExcessiveInfoRate> Format:	*optional parameter with default value: 0*

Parameter	Type	Description
	- excessive information rate of a shaper - unit: kbps - range: [0...2147483647]	excessive information rate of shaper
[no] type	Parameter type: <Qos::ShaperType> Format: (singletokenbucket | singletokenbucketgpon | onetokentworate | twotokenbuckettworate) Possible values: - singletokenbucket : single Token Bucket - singletokenbucketgpon : single Token Bucket for GPON - onetokentworate : single Token Two Rate Bucket - twotokenbuckettworate : two Token Two Rate Bucket	*optional parameter with default value: "singletokenbucket"* the shaper profile type
[no] autoshape	Parameter type: <Qos::AutoShape> Format: (autoshape-on | no-autoshape-on) Possible values: - autoshape-on : enable shaping based on queue parameters - no-autoshape-on : disable shaping based on queue parameters	*optional parameter with default value: "no-autoshape-on"* enable or disable automatic shaping

21.32 QoS Bandwidth Profile Configuration Command

Command Description

This command allows the operator to configure a QoS Bandwidth profile. A QoS Bandwidth profile contains upstream rate enforcement information for frames to which this profile is applied.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos profiles (no bandwidth (name)) | (bandwidth (name) committed-info-rate <Qos::BwCommittedInfoRate> assured-info-rate <Qos::BwAssuredInfoRate> excessive-info-rate <Qos::BwExcessiveInfoRate> [no delay-tolerance | delay-tolerance <Qos::DelayTolerance>] [no assu-burst-size | assu-burst-size <Qos::BwAssuredBurstSize>] [no exce-burst-size | exce-burst-size <Qos::BwExcessiveBurstSize>] [no dbru | dbru <Qos::BwDBRu>])

Command Parameters

Table 21.32-1 "QoS Bandwidth Profile Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	A unique profile name

Table 21.32-2 "QoS Bandwidth Profile Configuration Command" Command Parameters

Parameter	Type	Description
committed-info-rate	Parameter type: <Qos::BwCommittedInfoRate> Format: - committed information rate - unit: kbps - range: [0...25000000]	*mandatory parameter* committed information rate
assured-info-rate	Parameter type: <Qos::BwAssuredInfoRate> Format: - assured information rate - unit: kbps - range: [0...25000000]	*mandatory parameter* assured information rate
excessive-info-rate	Parameter type: <Qos::BwExcessiveInfoRate> Format: - excessive information rate - unit: kbps	*mandatory parameter* excessive information rate

Parameter	Type	Description
	- range: [0...25000000]	
[no] delay-tolerance	Parameter type: <Qos::DelayTolerance> Format: - delay tolerance - range: [1...240]	*optional parameter with default value: "1"* delay tolerance
[no] assu-burst-size	Parameter type: <Qos::BwAssuredBurstSize> Format: - assured burst size only for EPON - unit: kB - range: [1...256]	*optional parameter with default value: 256L* assured burst size only for EPON
[no] exce-burst-size	Parameter type: <Qos::BwExcessiveBurstSize> Format: - excessive burst size only for EPON - unit: kB - range: [1...256]	*optional parameter with default value: 256L* excessive burst size only for EPON
[no] dbru	Parameter type: <Qos::BwDBRu> Format: (enable | disable | enable-if-supported) Possible values: - enable : enable use of DBRu - disable : disable use of DBRu - enable-if-supported : enable DBRu if supported	*optional parameter with default value: "enable-if-supported"* DBRu enable

21.33 QoS IngressQoS Profile Configuration Command

Command Description

This command allows the operator to configure a QoS Ingress profile.The IngressQoS Profile table stores the pbit to TC mappings that can be used by a L2 Forwarder in the upstream and dowstream directions.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos profiles (no ingress-qos (name)) | (ingress-qos (name) [no dot1-p0-tc | dot1-p0-tc <Qos::TCMask_0>] [no dot1-p1-tc | dot1-p1-tc <Qos::TCMask_1>] [no dot1-p2-tc | dot1-p2-tc <Qos::TCMask_2>] [no dot1-p3-tc | dot1-p3-tc <Qos::TCMask_3>] [no dot1-p4-tc | dot1-p4-tc <Qos::TCMask_4>] [no dot1-p5-tc | dot1-p5-tc <Qos::TCMask_5>] [no dot1-p6-tc | dot1-p6-tc <Qos::TCMask_6>] [no dot1-p7-tc | dot1-p7-tc <Qos::TCMask_7>] [[no] use-dei] [no dot1-p0-color | dot1-p0-color <Qos::NibbleMask_0>] [no dot1-p1-color | dot1-p1-color <Qos::NibbleMask_1>] [no dot1-p2-color | dot1-p2-color <Qos::NibbleMask_2>] [no dot1-p3-color | dot1-p3-color <Qos::NibbleMask_3>] [no dot1-p4-color | dot1-p4-color <Qos::NibbleMask_4>] [no dot1-p5-color | dot1-p5-color <Qos::NibbleMask_5>] [no dot1-p6-color | dot1-p6-color <Qos::NibbleMask_6>] [no dot1-p7-color | dot1-p7-color <Qos::NibbleMask_7>] [no dot1-p0-pol-tc | dot1-p0-pol-tc <Qos::PolTCMask_0>] [no dot1-p1-pol-tc | dot1-p1-pol-tc <Qos::PolTCMask_1>] [no dot1-p2-pol-tc | dot1-p2-pol-tc <Qos::PolTCMask_2>] [no dot1-p3-pol-tc | dot1-p3-pol-tc <Qos::PolTCMask_3>] [no dot1-p4-pol-tc | dot1-p4-pol-tc <Qos::PolTCMask_4>] [no dot1-p5-pol-tc | dot1-p5-pol-tc <Qos::PolTCMask_5>] [no dot1-p6-pol-tc | dot1-p6-pol-tc <Qos::PolTCMask_6>] [no dot1-p7-pol-tc | dot1-p7-pol-tc <Qos::PolTCMask_7>])

Command Parameters

Table 21.33-1 "QoS IngressQoS Profile Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	A unique profile name

Table 21.33-2 "QoS IngressQoS Profile Configuration Command" Command Parameters

Parameter	Type	Description
[no] dot1-p0-tc	Parameter type: <Qos::TCMask_0> Format: - traffic class corresponding to pbit0 - range: [0...7,15]	*optional parameter with default value: 15* traffic class corresponding to pbit0
[no] dot1-p1-tc	Parameter type: <Qos::TCMask_1>	*optional parameter with default*

Parameter	Type	Description
	Format: - traffic class corresponding to pbit1 - range: [0...7,15]	*value: 15* traffic class corresponding to pbit1
[no] dot1-p2-tc	Parameter type: <Qos::TCMask_2> Format: - traffic class corresponding to pbit2 - range: [0...7,15]	*optional parameter with default value: 15* traffic class corresponding to pbit2
[no] dot1-p3-tc	Parameter type: <Qos::TCMask_3> Format: - traffic class corresponding to pbit3 - range: [0...7,15]	*optional parameter with default value: 15* traffic class corresponding to pbit3
[no] dot1-p4-tc	Parameter type: <Qos::TCMask_4> Format: - traffic class corresponding to pbit4 - range: [0...7,15]	*optional parameter with default value: 15* traffic class corresponding to pbit4
[no] dot1-p5-tc	Parameter type: <Qos::TCMask_5> Format: - traffic class corresponding to pbit5 - range: [0...7,15]	*optional parameter with default value: 15* traffic class corresponding to pbit5
[no] dot1-p6-tc	Parameter type: <Qos::TCMask_6> Format: - traffic class corresponding to pbit6 - range: [0...7,15]	*optional parameter with default value: 15* traffic class corresponding to pbit6
[no] dot1-p7-tc	Parameter type: <Qos::TCMask_7> Format: - traffic class corresponding to pbit7 - range: [0...7,15]	*optional parameter with default value: 15* traffic class corresponding to pbit7
[no] use-dei	Parameter type: boolean	*optional parameter* enable use of DEI bit
[no] dot1-p0-color	Parameter type: <Qos::NibbleMask_0> Format: (green | yellow | red | not-used) Possible values: - green : green color - yellow : yellow color - red : red color - not-used : pbit not in use	*optional parameter with default value: "green"* ingress color corresponding to pbit0
[no] dot1-p1-color	Parameter type: <Qos::NibbleMask_1> Format: (green | yellow | red | not-used) Possible values: - green : green color - yellow : yellow color - red : red color - not-used : pbit not in use	*optional parameter with default value: "green"* ingress color corresponding to pbit1
[no] dot1-p2-color	Parameter type: <Qos::NibbleMask_2> Format: (green | yellow | red | not-used)	*optional parameter with default value: "green"* ingress color corresponding to pbit2

Parameter	Type	Description
	Possible values: - green : green color - yellow : yellow color - red : red color - not-used : pbit not in use	
[no] dot1-p3-color	Parameter type: <Qos::NibbleMask_3> Format: (green | yellow | red | not-used) Possible values: - green : green color - yellow : yellow color - red : red color - not-used : pbit not in use	*optional parameter with default value: "green"* ingress color corresponding to pbit3
[no] dot1-p4-color	Parameter type: <Qos::NibbleMask_4> Format: (green | yellow | red | not-used) Possible values: - green : green color - yellow : yellow color - red : red color - not-used : pbit not in use	*optional parameter with default value: "green"* ingress color corresponding to pbit4
[no] dot1-p5-color	Parameter type: <Qos::NibbleMask_5> Format: (green | yellow | red | not-used) Possible values: - green : green color - yellow : yellow color - red : red color - not-used : pbit not in use	*optional parameter with default value: "green"* ingress color corresponding to pbit5
[no] dot1-p6-color	Parameter type: <Qos::NibbleMask_6> Format: (green | yellow | red | not-used) Possible values: - green : green color - yellow : yellow color - red : red color - not-used : pbit not in use	*optional parameter with default value: "green"* ingress color corresponding to pbit6
[no] dot1-p7-color	Parameter type: <Qos::NibbleMask_7> Format: (green | yellow | red | not-used) Possible values: - green : green color	*optional parameter with default value: "green"* ingress color corresponding to pbit7

Parameter	Type	Description
	- yellow : yellow color - red : red color - not-used : pbit not in use	
[no] dot1-p0-pol-tc	Parameter type: <Qos::PolTCMask_0> Format: - policing traffic class corresponding to pbit0 - range: [0...7,15]	*optional parameter with default value: 15* policing traffic class corresponding to pbit0
[no] dot1-p1-pol-tc	Parameter type: <Qos::PolTCMask_1> Format: - policing traffic class corresponding to pbit1 - range: [0...7,15]	*optional parameter with default value: 15* policing traffic class corresponding to pbit1
[no] dot1-p2-pol-tc	Parameter type: <Qos::PolTCMask_2> Format: - policing traffic class corresponding to pbit2 - range: [0...7,15]	*optional parameter with default value: 15* policing traffic class corresponding to pbit2
[no] dot1-p3-pol-tc	Parameter type: <Qos::PolTCMask_3> Format: - policing traffic class corresponding to pbit3 - range: [0...7,15]	*optional parameter with default value: 15* policing traffic class corresponding to pbit3
[no] dot1-p4-pol-tc	Parameter type: <Qos::PolTCMask_4> Format: - policing traffic class corresponding to pbit4 - range: [0...7,15]	*optional parameter with default value: 15* policing traffic class corresponding to pbit4
[no] dot1-p5-pol-tc	Parameter type: <Qos::PolTCMask_5> Format: - policing traffic class corresponding to pbit5 - range: [0...7,15]	*optional parameter with default value: 15* policing traffic class corresponding to pbit5
[no] dot1-p6-pol-tc	Parameter type: <Qos::PolTCMask_6> Format: - policing traffic class corresponding to pbit6 - range: [0...7,15]	*optional parameter with default value: 15* policing traffic class corresponding to pbit6
[no] dot1-p7-pol-tc	Parameter type: <Qos::PolTCMask_7> Format: - policing traffic class corresponding to pbit7 - range: [0...7,15]	*optional parameter with default value: 15* policing traffic class corresponding to pbit7

21.34 QoS Rate Limit Profile Configuration Command

Command Description

This command allows the operator to configure a QoS rate limit profile. A QoS rate limit profile contains all rate limit values related to different protocols, or total protocol values

Total protocol ratelimit value and supported protocol ratelimit value

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos profiles (no rate-limit (name)) | (rate-limit (name) [no total-rate | total-rate <Qos::RateLimitTotalRate>] [no total-burst | total-burst <Qos::RateLimitTotalBurst>] [no arp-rate | arp-rate <Qos::RateLimitProtocolRate>] [no arp-burst | arp-burst <Qos::RateLimitProtocolBurst>] [no dhcp-rate | dhcp-rate <Qos::RateLimitProtocolRate>] [no dhcp-burst | dhcp-burst <Qos::RateLimitProtocolBurst>] [no igmp-rate | igmp-rate <Qos::RateLimitProtocolRate>] [no igmp-burst | igmp-burst <Qos::RateLimitProtocolBurst>] [no pppoe-rate | pppoe-rate <Qos::RateLimitProtocolRate>] [no pppoe-burst | pppoe-burst <Qos::RateLimitProtocolBurst>] [no nd-rate | nd-rate <Qos::RateLimitProtocolRate>] [no nd-burst | nd-burst <Qos::RateLimitProtocolBurst>] [no icmpv6-rate | icmpv6-rate <Qos::RateLimitProtocolRate>] [no icmpv6-burst | icmpv6-burst <Qos::RateLimitProtocolBurst>] [no mld-rate | mld-rate <Qos::RateLimitProtocolRate>] [no mld-burst | mld-burst <Qos::RateLimitProtocolBurst>] [no dhcpv6-rate | dhcpv6-rate <Qos::RateLimitProtocolRate>] [no dhcpv6-burst | dhcpv6-burst <Qos::RateLimitProtocolBurst>] [no cfm-rate | cfm-rate <Qos::RateLimitProtocolRate>] [no cfm-burst | cfm-burst <Qos::RateLimitProtocolBurst>])

Command Parameters

Table 21.34-1 "QoS Rate Limit Profile Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	A unique profile name

Table 21.34-2 "QoS Rate Limit Profile Configuration Command" Command Parameters

Parameter	Type	Description
[no] total-rate	Parameter type: <Qos::RateLimitTotalRate> Format: - protocol rate limit total rate - unit: pps	*optional parameter with default value: 0* committed total rate limit value

Parameter	Type	Description
	- range: [0...254]	
[no] total-burst	Parameter type: <Qos::RateLimitTotalBurst> Format: - protocol rate limit total burst - unit: pps - range: [0...254]	*optional parameter with default value: 0* committed total rate limit burst value
[no] arp-rate	Parameter type: <Qos::RateLimitProtocolRate> Format: - protocol rate limit value - unit: pps - range: [0...254]	*optional parameter with default value: 0* ARP rate limit value
[no] arp-burst	Parameter type: <Qos::RateLimitProtocolBurst> Format: - protocol rate limit burst - unit: pps - range: [0...254]	*optional parameter with default value: 0* ARP burst value
[no] dhcp-rate	Parameter type: <Qos::RateLimitProtocolRate> Format: - protocol rate limit value - unit: pps - range: [0...254]	*optional parameter with default value: 0* DHCP rate limit value
[no] dhcp-burst	Parameter type: <Qos::RateLimitProtocolBurst> Format: - protocol rate limit burst - unit: pps - range: [0...254]	*optional parameter with default value: 0* DHCP burst value
[no] igmp-rate	Parameter type: <Qos::RateLimitProtocolRate> Format: - protocol rate limit value - unit: pps - range: [0...254]	*optional parameter with default value: 0* IGMP rate limit value
[no] igmp-burst	Parameter type: <Qos::RateLimitProtocolBurst> Format: - protocol rate limit burst - unit: pps - range: [0...254]	*optional parameter with default value: 0* IGMP burst value
[no] pppoe-rate	Parameter type: <Qos::RateLimitProtocolRate> Format: - protocol rate limit value - unit: pps - range: [0...254]	*optional parameter with default value: 0* PPPoE rate limit value
[no] pppoe-burst	Parameter type: <Qos::RateLimitProtocolBurst> Format: - protocol rate limit burst - unit: pps - range: [0...254]	*optional parameter with default value: 0* PPPoE burst value
[no] nd-rate	Parameter type: <Qos::RateLimitProtocolRate> Format: - protocol rate limit value - unit: pps - range: [0...254]	*optional parameter with default value: 0* Nd rate limit value
[no] nd-burst	Parameter type: <Qos::RateLimitProtocolBurst> Format: - protocol rate limit burst - unit: pps - range: [0...254]	*optional parameter with default value: 0* Nd burst value
[no] icmpv6-rate	Parameter type: <Qos::RateLimitProtocolRate>	*optional parameter with default*

Parameter	Type	Description
	Format: - protocol rate limit value - unit: pps - range: [0...254]	*value: 0* ICMP V6 rate limit value
[no] icmpv6-burst	Parameter type: <Qos::RateLimitProtocolBurst> Format: - protocol rate limit burst - unit: pps - range: [0...254]	*optional parameter with default value: 0* ICMP V6 burst value
[no] mld-rate	Parameter type: <Qos::RateLimitProtocolRate> Format: - protocol rate limit value - unit: pps - range: [0...254]	*optional parameter with default value: 0* MLD rate limit value
[no] mld-burst	Parameter type: <Qos::RateLimitProtocolBurst> Format: - protocol rate limit burst - unit: pps - range: [0...254]	*optional parameter with default value: 0* MLD burst value
[no] dhcpv6-rate	Parameter type: <Qos::RateLimitProtocolRate> Format: - protocol rate limit value - unit: pps - range: [0...254]	*optional parameter with default value: 0* DHCP V6 rate limit value
[no] dhcpv6-burst	Parameter type: <Qos::RateLimitProtocolBurst> Format: - protocol rate limit burst - unit: pps - range: [0...254]	*optional parameter with default value: 0* DHCP v6 burst value
[no] cfm-rate	Parameter type: <Qos::RateLimitProtocolRate> Format: - protocol rate limit value - unit: pps - range: [0...254]	*optional parameter with default value: 0* CFM rate limit value
[no] cfm-burst	Parameter type: <Qos::RateLimitProtocolBurst> Format: - protocol rate limit burst - unit: pps - range: [0...254]	*optional parameter with default value: 0* CFM burst value

21.35 QoS DSCP to Pbit Mapping Profile Configuration Command

Command Description

*This command allows the operator to configure a QoS DSCP to Pbit mapping profile. To configure the DSCP codepoints in the DSCP to dot1p mapping, the command "**configure qos profiles dscp-pbit (name) codepoint (codepoint) (value)**" is to be used.*

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos profiles (no dscp-pbit (name)) | (dscp-pbit (name))

Command Parameters

Table 21.35-1 "QoS DSCP to Pbit Mapping Profile Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	A unique profile name

21.36 QoS DSCP to Pbit Mapping Profile Configuration Command

Command Description

*This command allows the operator to configure a QoS DSCP to Pbit mapping profile. To configure the DSCP codepoints in the DSCP to dot1p mapping, the command "**configure qos profiles dscp-pbit (name) codepoint (codepoint) (value)**" is to be used.*

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos profiles dscp-pbit (name) codepoint (codepoint) [dot1p-value <Qos::DscpToDot1PAlign>]

Command Parameters

Table 21.36-1 "QoS DSCP to Pbit Mapping Profile Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	A unique profile name
(codepoint)	Format: - the number of the DSCP codepoint - range: [0...63]	the value of the codepoint

Table 21.36-2 "QoS DSCP to Pbit Mapping Profile Configuration Command" Command Parameters

Parameter	Type	Description
dot1p-value	Parameter type: <Qos::DscpToDot1PAlign> Format: - the DOT1P value - range: [0...7]	*optional parameter* the dot1p value to be assigned to the dscp codepoint

21.37 QoS DSCP to Tc Mapping Profile Configuration Command

Command Description

*This command allows the operator to configure a QoS DSCP to Tc mapping profile. To configure the DSCP codepoints in the DSCP to tc mapping, the command "**configure qos profiles dscp-tc (name) codepoint (codepoint) (value)**" is to be used.*

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos profiles (no dscp-tc (name)) | (dscp-tc (name))

Command Parameters

Table 21.37-1 "QoS DSCP to Tc Mapping Profile Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	A unique profile name

21.38 QoS DSCP to Tc Mapping Profile Configuration Command

Command Description

*This command allows the operator to configure a QoS DSCP to Tc mapping profile. To configure the DSCP codepoints in the DSCP to tc mapping, the command "**configure qos profiles dscp-tc (name) codepoint (codepoint) (value)**" is to be used.*

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos profiles dscp-tc (name) codepoint (codepoint) [tc-value <Qos::DscpToTcAlign>]

Command Parameters

Table 21.38-1 "QoS DSCP to Tc Mapping Profile Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	A unique profile name
(codepoint)	Format: - the number of the DSCP codepoint - range: [0...63]	the value of the codepoint

Table 21.38-2 "QoS DSCP to Tc Mapping Profile Configuration Command" Command Parameters

Parameter	Type	Description
tc-value	Parameter type: <Qos::DscpToTcAlign> Format: - the Tc value - range: [0...7]	*optional parameter* the tc value to be assigned to the dscp codepoint

21.39 QoS Policer Per Tc Profile Configure

Command Description

This command allows the operator to configure policer per tc profile. .

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos profiles (no policer-per-tc (name)) | (policer-per-tc (name))

Command Parameters

Table 21.39-1 "QoS Policer Per Tc Profile Configure" Resource Parameters

Resource Identifier	Type	Description
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	A unique profile name

21.40 QoS Policer Per Tc Profile Configure

Command Description

This command allows the operator to configure policer per tc profile. .

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos profiles policer-per-tc (name) tc-policer (tc) [no policer | policer <Qos::QosPolicerProfileName>]

Command Parameters

Table 21.40-1 "QoS Policer Per Tc Profile Configure" Resource Parameters

Resource Identifier	Type	Description
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	A unique profile name
(tc)	Format: - the number of the TC index - range: [0...7]	the value of the tc index

Table 21.40-2 "QoS Policer Per Tc Profile Configure" Command Parameters

Parameter	Type	Description
[no] policer	Parameter type: <Qos::QosPolicerProfileName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associate - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* the value of the tc

21.41 QoS CoS Threshold Profile Configuration Command

Command Description

This command allows the operator to configure a QoS CoS threshold profile. A QoS CoS threshold profile contains all settings related to a policer threshold.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos profiles (no cos-threshold (name)) | (cos-threshold (name) [no tc0-threshold | tc0-threshold <Qos::tcThreshold>] [no tc1-threshold | tc1-threshold <Qos::tcThreshold>] [no tc2-threshold | tc2-threshold <Qos::tcThreshold>] [no tc3-threshold | tc3-threshold <Qos::tcThreshold>] [no tc4-threshold | tc4-threshold <Qos::tcThreshold>] [no tc5-threshold | tc5-threshold <Qos::tcThreshold>] [no tc6-threshold | tc6-threshold <Qos::tcThreshold>] [no tc7-threshold | tc7-threshold <Qos::tcThreshold>])

Command Parameters

Table 21.41-1 "QoS CoS Threshold Profile Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(name)	Format: - a profile name - range: [a-zA-Z0-9-_.] - length: 1<=x<=32	A unique profile name

Table 21.41-2 "QoS CoS Threshold Profile Configuration Command" Command Parameters

Parameter	Type	Description
[no] tc0-threshold	Parameter type: <Qos::tcThreshold> Format: - Percentage of the QoS Thresh - range: [0...100]	*optional parameter with default value: 0* tc0 threshold, unit: percent
[no] tc1-threshold	Parameter type: <Qos::tcThreshold> Format: - Percentage of the QoS Thresh - range: [0...100]	*optional parameter with default value: 0* tc1 threshold, unit: percent
[no] tc2-threshold	Parameter type: <Qos::tcThreshold> Format: - Percentage of the QoS Thresh - range: [0...100]	*optional parameter with default value: 0* tc2 threshold, unit: percent
[no] tc3-threshold	Parameter type: <Qos::tcThreshold> Format:	*optional parameter with default value: 0*

Parameter	Type	Description
	- Percentage of the QoS Thresh - range: [0...100]	tc3 threshold, unit: percent
[no] tc4-threshold	Parameter type: <Qos::tcThreshold> Format: - Percentage of the QoS Thresh - range: [0...100]	*optional parameter with default value: 0* tc4 threshold, unit: percent
[no] tc5-threshold	Parameter type: <Qos::tcThreshold> Format: - Percentage of the QoS Thresh - range: [0...100]	*optional parameter with default value: 0* tc5 threshold, unit: percent
[no] tc6-threshold	Parameter type: <Qos::tcThreshold> Format: - Percentage of the QoS Thresh - range: [0...100]	*optional parameter with default value: 0* tc6 threshold, unit: percent
[no] tc7-threshold	Parameter type: <Qos::tcThreshold> Format: - Percentage of the QoS Thresh - range: [0...100]	*optional parameter with default value: 0* tc7 threshold, unit: percent

21.42 QoS Board-Level Queue and Performance Configuration Command

Command Description

This command allows the operator to configure various parameters related to board-level traffic load and packet loss.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos global (index) [no buffer-occ-thresh | buffer-occ-thresh <Qos::PercentThresh>] [[no] queue-stats] [[no] dsload-tca] [no dsload-thresh | dsload-thresh <Qos::PercentThresh>] [[no] buffer-tca] [no up-buf-thresh | up-buf-thresh <Qos::UpAggrBufOvflwTcaTh>] [no up-obc-thresh | up-obc-thresh <Qos::UpObcAggrBufOvflwTcaTh>] [no dn-obc-thresh | dn-obc-thresh <Qos::DnObcAggrBufOvflwTcaTh>] [no dn-buf-thresh | dn-buf-thresh <Qos::DnUcAggrBufOvflwTcaTh>] [no part-buf-thresh | part-buf-thresh <Qos::PartBufThresh>]

Command Parameters

Table 21.42-1 "QoS Board-Level Queue and Performance Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(index)	Format: (lt : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> | <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::EqSlotId>) Possible values: - lt : lt-slot Field type <Eqpt::RackId> - the rack number Field type <Eqpt::ShelfId> - the shelf number Field type <Eqpt::SlotId> - the LT slot number Field type <Eqpt::EqSlotId> - the equipment slot number	the physical number of the slot

Table 21.42-2 "QoS Board-Level Queue and Performance Configuration Command" Command Parameters

Parameter	Type	Description
[no] buffer-occ-thresh	Parameter type: <Qos::PercentThresh> Format:	*optional parameter with default value: 0*

Parameter	Type	Description
	- Percentage of the QoS Thresh - range: [0...100]	the ratio of occupied data buffer entries to the LT global data buffer size, above which the partial buffer threshold alarm will be triggered.(only applicable to low priority traffic i.e. BE and CL)
[no] queue-stats	Parameter type: boolean	*optional parameter* enable or disable generation of queue statistics
[no] dsload-tca	Parameter type: boolean	*optional parameter* enable or disable the threshold crossing alarm associated to card-level load of downstream traffic
[no] dsload-thresh	Parameter type: <Qos::PercentThresh> Format: - Percentage of the QoS Thresh - range: [0...100]	*optional parameter with default value: 0* Percentage of LT fan-out load above which the alarm will be triggered.
[no] buffer-tca	Parameter type: boolean	*optional parameter* enable the threshold crossover alarm of aggregation buffer overflow
[no] up-buf-thresh	Parameter type: <Qos::UpAggrBufOvflwTcaTh> Format: - Qos thresh - range: [0...2147483647]	*optional parameter with default value: 0* the threshold of upstream aggregation buffer overflow TCA.
[no] up-obc-thresh	Parameter type: <Qos::UpObcAggrBufOvflwTcaTh> Format: - Qos thresh - range: [0...2147483647]	*optional parameter with default value: 0* The threshold of OBC-directed upstream aggregation buffer overflow TCA.
[no] dn-obc-thresh	Parameter type: <Qos::DnObcAggrBufOvflwTcaTh> Format: - Qos thresh - range: [0...2147483647]	*optional parameter with default value: 0* The threshold of downstream OBC-directed aggregation buffer overflow TCA.
[no] dn-buf-thresh	Parameter type: <Qos::DnUcAggrBufOvflwTcaTh> Format: - Qos thresh - range: [0...2147483647]	*optional parameter with default value: 0* The threshold of downstream data aggregation buffer overflow TCA.
[no] part-buf-thresh	Parameter type: <Qos::PartBufThresh> Format: - threshold of dropped lower class packets of global buffer. range: [0...18446744073709551615]	*optional parameter with default value: "0"* The threshold of dropped lower class packets of global buffer occupancy threshold overflow TCA.

21.43 QoS Queue Threshold Crossing Alarm Configuration Command

Command Description

This command allows the operator to configure various parameters related to subscriber interface and queue level traffic load and packet loss.

Load per physical line is calculated by matching the total number of bytes transmitted versus the capacity of the interface in the relevant measurement epoch. Load per queue is measured in terms of the contribution to the interface level load of traffic passed in a certain queue.

Threshold crossing alarms can be specified for the load and packet loss parameters per line and per traffic class.

This feature can be useful to detect network anomalies by watching over packet discard or load level in high-priority traffic classes.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos tca (index) queue <Qos::TcaQueues> [[no] tca-enable] [no load-thresh | load-thresh <Qos::PercentThresh>] [no dis-frame-th | dis-frame-th <Qos::QosQueueStatsDiscFramesTcaThreshold>] [no qpeak-usage-th | qpeak-usage-th <Qos::PercentThresh>]

Command Parameters

Table 21.43-1 "QoS Queue Threshold Crossing Alarm Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(index)	Format: (<Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PortId> | <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / <Eqpt::OntSlotId> / <Eqpt::OntPortId> | pon : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> | ont : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> | <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / voip | <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / vuni	physical port or lag port of a dsl link

Resource Identifier	Type	Description
	| ellid : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / <Eqpt::LLId> | epon : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> | eont : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / <Eqpt::OntSlotId> / <Eqpt::OntPortId> : <Eqpt::UnstackedVlan> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / <Eqpt::OntSlotId> / <Eqpt::OntPortId> : stacked : <Eqpt::SVlan> : <Eqpt::CVlan> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / voip : <Eqpt::UnstackedVlan> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / vuni : <Eqpt::UnstackedVlan> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / voip : stacked : <Eqpt::SVlan> : <Eqpt::CVlan> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / vuni : stacked : <Eqpt::SVlan> : <Eqpt::CVlan> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PortId> : <Eqpt::UnstackedVlan> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PortId> : stacked : <Eqpt::SVlan> : <Eqpt::CVlan> | chpair : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::ChannelPairId> | ont:ng2 : <Eqpt::ChannelGroupId> / <Eqpt::SubChannelGroupId> / <Eqpt::Ng2OntId> | uni:ng2 : <Eqpt::ChannelGroupId> / <Eqpt::SubChannelGroupId> / <Eqpt::Ng2OntId> / <Eqpt::Ng2OntSlotId> / <Eqpt::Ng2OntPortId> | vlan:ng2 : <Eqpt::ChannelGroupId> / <Eqpt::SubChannelGroupId> / <Eqpt::Ng2OntId> / <Eqpt::Ng2OntSlotId> / <Eqpt::Ng2OntPortId> : <Eqpt::UnstackedVlan> | vlan:ng2 : <Eqpt::ChannelGroupId> / <Eqpt::SubChannelGroupId> / <Eqpt::Ng2OntId> / <Eqpt::Ng2OntSlotId> / <Eqpt::Ng2OntPortId> : stacked : <Eqpt::SVlan> : <Eqpt::CVlan> | ltbackpl : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> | uni:ng2 : <Eqpt::ChannelGroupId> / <Eqpt::SubChannelGroupId> / <Eqpt::Ng2OntId> / vuni | vlan:ng2 : <Eqpt::ChannelGroupId> / <Eqpt::SubChannelGroupId> / <Eqpt::Ng2OntId> / vuni : <Eqpt::UnstackedVlan> | vlan:ng2 : <Eqpt::ChannelGroupId> / <Eqpt::SubChannelGroupId> / <Eqpt::Ng2OntId> / vuni : stacked : <Eqpt::SVlan> : <Eqpt::CVlan> | x-pon : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::XPonId> | 25g-pon : <Eqpt::RackId> / <Eqpt::ShelfId> /	

Resource Identifier	Type	Description
	<Eqpt::SlotId> / <Eqpt::M25GPonId>) Possible values: - pon : pon - x-pon : xgs pon - 25g-pon : 25g pon - chpair : channel pair - ont : ont - epon : epon - eont : eont - ellid : ellid - vlan : vlan - ont:ng2 : ngpon2 ONT style identification - uni:ng2 : ngpon2 UNI style identification - vlan:ng2 : ngpon2 vlan - ltbackpl : Backplane Port on LT Field type <Eqpt::RackId> - the rack number Field type <Eqpt::ShelfId> - the shelf number Field type <Eqpt::SlotId> - the LT slot number Field type <Eqpt::PortId> - the port number Field type <Eqpt::PonId> - the PON identifier Field type <Eqpt::XPonId> - the XGS PON identifier Field type <Eqpt::M25GPonId> - the 25G PON identifier Field type <Eqpt::ChannelPairId> - the channel pair identifier Field type <Eqpt::ChannelGroupId> - the channel group identifier Field type <Eqpt::SubChannelGroupId> - the subchannel group identifier Field type <Eqpt::OntId> - the ONT identifier Field type <Eqpt::Ng2OntId> - the NG2 ONT identifier Field type <Eqpt::LLId> - the LLID identifier,range 1 for EPON,range 1-8 for DPOE Possible values: - voip : virtual uni identifier obsolete alternative replaced by vuni - vuni : virtual uni identifier Possible values: - vuni : virtual NGPON2 uni identifier Field type <Eqpt::OntSlotId> - the ONT SLOT identifier Field type <Eqpt::OntPortId> - the ONT PORT identifier Field type <Eqpt::Ng2OntSlotId> - the NGPON2 ONT SLOT identifier Field type <Eqpt::Ng2OntPortId> - the NGPON2 ONT PORT identifier Possible values: - stacked : stacked vlan identity	

Resource Identifier	Type	Description
	Field type <Eqpt::UnstackedVlan> - unstacked vlan id Field type <Eqpt::SVlan> - service vlan id Field type <Eqpt::CVlan> - customer vlan id	
queue	Parameter type: <Qos::TcaQueues> Format: - output dsl/gpon/epon port queue number - range: [0...7,255]	the queue with in the scope of one dsl link of tca

Table 21.43-2 "QoS Queue Threshold Crossing Alarm Configuration Command" Command Parameters

Parameter	Type	Description
[no] tca-enable	Parameter type: boolean	*optional parameter* each queue statistic TCA of this queue
[no] load-thresh	Parameter type: <Qos::PercentThresh> Format: - Percentage of the QoS Thresh - range: [0...100]	*optional parameter with default value: 0* The threshold of queue traffic load.
[no] dis-frame-th	Parameter type: <Qos::QosQueueStatsDiscFramesTcaThreshold> Format: - Qos thresh - range: [0...2147483647]	*optional parameter with default value: 0* The threshold of discarded frames of this queue.
[no] qpeak-usage-th	Parameter type: <Qos::PercentThresh> Format: - Percentage of the QoS Thresh - range: [0...100]	*optional parameter with default value: 0* The threshold of the per queue traffic peak usage.

21.44 QoS DSL Link Configuration Command

Command Description

Obsolete command, replaced by configure qos interface (index).

This command allows the operator to configure QoS settings on subscriber interfaces. For each subscriber interface the operator can apply scheduling and CAC settings.

A scheduler profile is used to configure egress scheduler settings for egress subscriber interfaces on L3 cards. A CAC profile is used to configure CAC settings for a subscriber interface.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos dsl-port (index) [no scheduler-profile | scheduler-profile <Qos::SchedulerProfName>] [cac-profile <Qos::QosCacProfileName>]

Obsolete command, replaced by configure qos interface (index).

Command Parameters

Table 21.44-1 "QoS DSL Link Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(index)	Format: <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PortId> Field type <Eqpt::RackId> - the rack number Field type <Eqpt::ShelfId> - the shelf number Field type <Eqpt::SlotId> - the LT slot number Field type <Eqpt::PortId> - the port number	physical port of a subscriber interface.

Table 21.44-2 "QoS DSL Link Configuration Command" Command Parameters

Parameter	Type	Description
[no] scheduler-profile	Parameter type: <Qos::SchedulerProfName> Format: name : <Qos::IgnoredQosProfileName> Possible values: - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration	*optional parameter with default value: "name : CL_66"* name of scheduler profile to be mapped on this subscriber interface.

Parameter	Type	Description
	and software. The currently allowed values can be shown with online-help.	
cac-profile	Parameter type: <Qos::QosCacProfileName> Format: (name : <Qos::IgnoredQosProfileName> | none) Possible values: - none : no profile name to associated - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter* name of cac profile to be mapped on this subscriber interface.

21.45 QoS LIM Queue Configuration Command

Command Description

Obsolete command, replaced by configure qos interface (index) queue.

This command allows the operator to configure a QoS Line Card queue. On the L3 line cards, each DSL interface supports four downstream buffers, which can be configured independently using buffer acceptance control (BAC) profiles.

The operator can configure downstream buffers, such that the total buffer pool is oversubscribed. However, this is not recommended because this allows QoS un-aware packet discard. If the total downstream buffer pool is over-subscribed, the system logs a warning message. Proceed with care, as this allows QoS un-aware packet discard in extreme traffic conditions.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos dsl-port (index) queue (queue) [queue-profile <Qos::QosQueueProfileName>]

Obsolete command, replaced by configure qos interface (index) queue.

Command Parameters

Table 21.45-1 "QoS LIM Queue Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(index)	Format: <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PortId> Field type <Eqpt::RackId> - the rack number Field type <Eqpt::ShelfId> - the shelf number Field type <Eqpt::SlotId> - the LT slot number Field type <Eqpt::PortId> - the port number	physical port of a subscriber interface.
(queue)	Format: - output dsl/gpon/epon port queue number - range: [0...7,255]	queue in scope of 1 dsl link on a line-interface-module

Table 21.45-2 "QoS LIM Queue Configuration Command" Command Parameters

Parameter	Type	Description
queue-profile	Parameter type: <Qos::QosQueueProfileName> Format:	*optional parameter* name of the queue profile

Parameter	Type	Description
	(none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associated - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	

21.46 QoS ShdSL Link Configuration Command

Command Description

Obsolete command, replaced by configure qos interface (index).

This command allows the operator to configure Shdsl links. For each Shdsl link the operator can apply scheduling and CAC settings.

A scheduler profile is used to configure egress scheduler settings for each egress Shdsl interface. A CAC profile is used to configure CAC settings for each Shdsl interface.

The Shdsl link table can be configured on the SMLT-H , SMLT-J and NSLT-A units.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos shdsl-port (index) [scheduler-profile <Qos::QosSchedulerProfileName>] [cac-profile <Qos::QosCacProfileName>]

Obsolete command, replaced by configure qos interface (index).

Command Parameters

Table 21.46-1 "QoS ShdSL Link Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(index)	Format: <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PortId> Field type <Eqpt::RackId> - the rack number Field type <Eqpt::ShelfId> - the shelf number Field type <Eqpt::SlotId> - the LT slot number Field type <Eqpt::PortId> - the port number	physical port of a shdsl link

Table 21.46-2 "QoS ShdSL Link Configuration Command" Command Parameters

Parameter	Type	Description
scheduler-profile	Parameter type: <Qos::QosSchedulerProfileName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associate	*optional parameter* name of scheduler profile to be mapped on this dsl link

Parameter	Type	Description
	- name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	
cac-profile	Parameter type: <Qos::QosCacProfileName> Format: (name : <Qos::IgnoredQosProfileName> | none) Possible values: - none : no profile name to associated - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter* name of cac profile to be mapped on this dsl link

21.47 QoS LIM Queue (SHDSL) Configuration Command

Command Description

Obsolete command, replaced by configure qos interface (index) queue.

This command allows the operator to configure a QoS Line Card queue. On the L3 line cards, each SHDSL interface supports four downstream buffers, which can be configured independently using buffer acceptance control (BAC) profiles.

The operator can configure downstream buffers, such that the total buffer pool is oversubscribed. However, this is not recommended because this allows QoS un-aware packet discard. If the total downstream buffer pool is over-subscribed, the system logs a warning message. Proceed with care, as this allows QoS un-aware packet discard in extreme traffic conditions.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos shdsl-port (index) queue (queue) [queue-profile <Qos::QosQueueProfileName>]

Obsolete command, replaced by configure qos interface (index) queue.

Command Parameters

Table 21.47-1 "QoS LIM Queue (SHDSL) Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(index)	Format: <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PortId> Field type <Eqpt::RackId> - the rack number Field type <Eqpt::ShelfId> - the shelf number Field type <Eqpt::SlotId> - the LT slot number Field type <Eqpt::PortId> - the port number	physical port of a shdsl link
(queue)	Format: - output dsl/gpon/epon port queue number - range: [0...7,255]	queue in scope of 1 dsl link on a line-interface-module

Table 21.47-2 "QoS LIM Queue (SHDSL) Configuration Command" Command Parameters

Parameter	Type	Description
queue-profile	Parameter type: <Qos::QosQueueProfileName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associated - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter* name of the queue profile

21.48 QoS Interface Configuration Command

Command Description

This command allows the operator to configure QoS settings on a user-port Interface. A user-port Interface can be a DSL-link, an Shdsl-link, an Ethernet Line, a Link Aggregation Group or a pon, ont or uni interface. For each Interface the operator can apply scheduling and CAC and shaper settings.

A scheduler node profile is used to configure egress scheduler settings for each egress Interface. A CAC profile is used to configure CAC settings for each Interface. A shaper profile is used to configure downstream flooding shaper settings for each Interface.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos interface (index) [no scheduler-node | scheduler-node <Qos::SchedulerNodeProfName>] [no ingress-profile | ingress-profile <Qos::QosIngressProfileNameEOnu>] [no cac-profile | cac-profile <Qos::QosCacProfileName>] [no ext-cac | ext-cac <Qos::QosCacProfileName>] [[no] ds-queue-sharing] [[no] us-queue-sharing] [no ds-num-queue | ds-num-queue <Qos::NumberofQueues>] [no ds-num-rem-queue | ds-num-rem-queue <Qos::NumberofQueues>] [no us-num-queue | us-num-queue <Qos::NumberofQueues>] [[no] queue-stats-on] [[no] autoschedule] [oper-weight <Qos::QosWeight>] [oper-rate <Qos::ShaperExcessiveInfoRate>] [[no] us-vlanport-queue] [no dsfld-shaper-prof | dsfld-shaper-prof <Qos::QosShaperProfileName>] [no bandwidth-profile | bandwidth-profile <Qos::QosBandwidthProfileName>] [no bandwidth-sharing | bandwidth-sharing <Qos::UniBandwidthSharing>] [no aggr-usq-profile | aggr-usq-profile <Qos::QosAggrQueuesConfigProfileName>] [no aggr-dsq-profile | aggr-dsq-profile <Qos::QosAggrQueuesConfigProfileName>] [no gem-sharing | gem-sharing <Qos::GemSharing>] [no scheduler-mode | scheduler-mode <Qos::SchedulerMode>] [no mc-scheduler-node | mc-scheduler-node <Qos::SchedulerNodeProfName>] [no bc-scheduler-node | bc-scheduler-node <Qos::SchedulerNodeProfName>] [no ds-schedule-tag | ds-schedule-tag <Qos::DsScheduleTag>]

Command Parameters

Table 21.48-1 "QoS Interface Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(index)	Format: (<Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PortId> | <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / <Eqpt::OntSlotId> / <Eqpt::OntPortId> | pon : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> | ont : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> | <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> /	physical port or la-group of a user-port Interface

Resource Identifier	Type	Description
	<Eqpt::PonId> / <Eqpt::OntId> / voip | <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / vuni | ellid : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / <Eqpt::LLId> | epon : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> | eont : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / <Eqpt::OntSlotId> / <Eqpt::OntPortId> : <Eqpt::UnstackedVlan> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / <Eqpt::OntSlotId> / <Eqpt::OntPortId> : stacked : <Eqpt::SVlan> : <Eqpt::CVlan> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / voip : <Eqpt::UnstackedVlan> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / vuni : <Eqpt::UnstackedVlan> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / voip : stacked : <Eqpt::SVlan> : <Eqpt::CVlan> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / vuni : stacked : <Eqpt::SVlan> : <Eqpt::CVlan> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PortId> : <Eqpt::UnstackedVlan> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PortId> : stacked : <Eqpt::SVlan> : <Eqpt::CVlan> | chpair : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::ChannelPairId> | ont:ng2 : <Eqpt::ChannelGroupId> / <Eqpt::SubChannelGroupId> / <Eqpt::Ng2OntId> | uni:ng2 : <Eqpt::ChannelGroupId> / <Eqpt::SubChannelGroupId> / <Eqpt::Ng2OntId> / <Eqpt::Ng2OntSlotId> / <Eqpt::Ng2OntPortId> | vlan:ng2 : <Eqpt::ChannelGroupId> / <Eqpt::SubChannelGroupId> / <Eqpt::Ng2OntId> / <Eqpt::Ng2OntSlotId> / <Eqpt::Ng2OntPortId> : <Eqpt::UnstackedVlan> | vlan:ng2 : <Eqpt::ChannelGroupId> / <Eqpt::SubChannelGroupId> / <Eqpt::Ng2OntId> / <Eqpt::Ng2OntSlotId> / <Eqpt::Ng2OntPortId> : stacked : <Eqpt::SVlan> : <Eqpt::CVlan> | ltbackpl : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> | uni:ng2 : <Eqpt::ChannelGroupId> / <Eqpt::SubChannelGroupId> / <Eqpt::Ng2OntId> / vuni | vlan:ng2 : <Eqpt::ChannelGroupId> / <Eqpt::SubChannelGroupId> / <Eqpt::Ng2OntId> / vuni : <Eqpt::UnstackedVlan> | vlan:ng2 : <Eqpt::ChannelGroupId> / <Eqpt::SubChannelGroupId> / <Eqpt::Ng2OntId> / vuni : stacked : <Eqpt::SVlan> : <Eqpt::CVlan>	

Resource Identifier	Type	Description
	| x-pon : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::XPonId> | 25g-pon : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::M25GPonId>) Possible values: - pon : pon - x-pon : xgs pon - 25g-pon : 25g pon - chpair : channel pair - ont : ont - epon : epon - eont : eont - ellid : ellid - vlan : vlan - ont:ng2 : ngpon2 ONT style identification - uni:ng2 : ngpon2 UNI style identification - vlan:ng2 : ngpon2 vlan - ltbackpl : Backplane Port on LT Field type <Eqpt::RackId> - the rack number Field type <Eqpt::ShelfId> - the shelf number Field type <Eqpt::SlotId> - the LT slot number Field type <Eqpt::PortId> - the port number Field type <Eqpt::PonId> - the PON identifier Field type <Eqpt::XPonId> - the XGS PON identifier Field type <Eqpt::M25GPonId> - the 25G PON identifier Field type <Eqpt::ChannelPairId> - the channel pair identifier Field type <Eqpt::ChannelGroupId> - the channel group identifier Field type <Eqpt::SubChannelGroupId> - the subchannel group identifier Field type <Eqpt::OntId> - the ONT identifier Field type <Eqpt::Ng2OntId> - the NG2 ONT identifier Field type <Eqpt::LLId> - the LLID identifier,range 1 for EPON,range 1-8 for DPOE Possible values: - voip : virtual uni identifier obsolete alternative replaced by vuni - vuni : virtual uni identifier Possible values: - vuni : virtual NGPON2 uni identifier Field type <Eqpt::OntSlotId> - the ONT SLOT identifier Field type <Eqpt::OntPortId> - the ONT PORT identifier Field type <Eqpt::Ng2OntSlotId> - the NGPON2 ONT SLOT identifier Field type <Eqpt::Ng2OntPortId>	

Resource Identifier	Type	Description
	- the NGPON2 ONT PORT identifier Possible values: - stacked : stacked vlan identity Field type <Eqpt::UnstackedVlan> - unstacked vlan id Field type <Eqpt::SVlan> - service vlan id Field type <Eqpt::CVlan> - customer vlan id	

Table 21.48-2 "QoS Interface Configuration Command" Command Parameters

Parameter	Type	Description
[no] scheduler-node	Parameter type: <Qos::SchedulerNodeProfName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associated - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* the name of the scheduler-node profile to be mapped on this user-port Interface
[no] ingress-profile	Parameter type: <Qos::QosIngressProfileNameEOnu> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associated - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* the name of the ingress profile to be mapped on this user-port Interface. It only used for EPON ONU interface current.
[no] cac-profile	Parameter type: <Qos::QosCacProfileName> Format: (name : <Qos::IgnoredQosProfileName> | none) Possible values: - none : no profile name to associated - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* the name of the cac profile to be mapped on this user-port Interface. For EPON OLT in downstream, this profile used for CAC on 1G PON bandwidth.
[no] ext-cac	Parameter type: <Qos::QosCacProfileName> Format: (name : <Qos::IgnoredQosProfileName> | none) Possible values: - none : no profile name to associated - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* the name of the cac profile to be mapped on this user-port Interface. For EPON OLT in downstream, this profile used for CAC on 10G PON bandwidth.
[no] ds-queue-sharing	Parameter type: boolean	*optional parameter*

Parameter	Type	Description
		enable downstream queue sharing
[no] us-queue-sharing	Parameter type: boolean	*optional parameter* enable upstream queue sharing
[no] ds-num-queue	Parameter type: <Qos::NumberofQueues> Format: (not-applicable | <Qos::NumberofQueues>) Possible values: - not-applicable : not applicable Field type <Qos::NumberofQueues> - number of queues per uni - range: [4,8,1]	*optional parameter with default value: 4* number of downstream queues per uni
[no] ds-num-rem-queue	Parameter type: <Qos::NumberofQueues> Format: (not-applicable | <Qos::NumberofQueues>) Possible values: - not-applicable : not applicable Field type <Qos::NumberofQueues> - number of queues per uni - range: [4,8,1]	*optional parameter with default value: 0* number of remote downstream queues per ont
[no] us-num-queue	Parameter type: <Qos::NumberofQueues> Format: (not-applicable | <Qos::NumberofQueues>) Possible values: - not-applicable : not applicable Field type <Qos::NumberofQueues> - number of queues per uni - range: [4,8,1]	*optional parameter with default value: 8* number of upstream queues per uni
[no] queue-stats-on	Parameter type: boolean	*optional parameter* enable queue stats collection for ont uni
[no] autoschedule	Parameter type: boolean	*optional parameter*
oper-weight	Parameter type: <Qos::QosWeight> Format: - relative weight - range: [0...127]	*optional parameter* operational weight of the ONT or UNI scheduler
oper-rate	Parameter type: <Qos::ShaperExcessiveInfoRate> Format: - excessive information rate of a shaper - unit: kbps - range: [0...2147483647]	*optional parameter* Operational rate limit when autoShape enabled for ONT or UNI
[no] us-vlanport-queue	Parameter type: boolean	*optional parameter* Enable Vlan Port Level Queue Configuration
[no] dsfld-shaper-prof	Parameter type: <Qos::QosShaperProfileName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associated - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* the name of the shaper profile attached to the pon

Parameter	Type	Description
[no] bandwidth-profile	Parameter type: <Qos::QosBandwidthProfileName> Format: (name : <Qos::IgnoredQosProfileName> | none) Possible values: - none : no profile name to associate - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* the name of the bandwidth profile.
[no] bandwidth-sharing	Parameter type: <Qos::UniBandwidthSharing> Format: (no-sharing | ont-sharing) Possible values: - no-sharing : disable bandwidth sharing - ont-sharing : enable UNI level BW or TCONT sharing across UNIs of an ONT	*optional parameter with default value: "no-sharing"* enable or disable bandwidth sharing
[no] aggr-usq-profile	Parameter type: <Qos::QosAggrQueuesConfigProfileName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associated - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* the name of the aggrQueuesConfig profile applied on upstream queues of an UNI.
[no] aggr-dsq-profile	Parameter type: <Qos::QosAggrQueuesConfigProfileName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associated - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* the name of the aggrQueuesConfig profile applied on downstream queues of an UNI.
[no] gem-sharing	Parameter type: <Qos::GemSharing> Format: (enable | disable | not-applicable) Possible values: - enable : enable GEM sharing - disable : disable GEM sharing - not-applicable : not applicable	*optional parameter with default value: "disable"* enable or disable gem sharing
[no] scheduler-mode	Parameter type: <Qos::SchedulerMode> Format: (subscriber-hierarchy | service-hierarchy | service-flat) Possible values: - subscriber-hierarchy : Subscriber-based hierarchical	*optional parameter with default value: "subscriber-hierarchy"* specifies which mode is selected for scheduler

Parameter	Type	Description
	scheduling. This mode achieves subscriber fairness using a Traffic Management hierarchy of subscriber levels. - service-hierarchy : Service-based hierarchical scheduling. This mode achieves subscriber fairness using a Traffic Management hierarchy of subscriber levels, but also takes into account the service priority across all subscribers to achieve service fairness. - service-flat : Service-based scheduling across all subscribers, using a flat class-based scheduler and aggregated queues associated with the physical port (e.g. PON port).	
[no] mc-scheduler-node	Parameter type: <Qos::SchedulerNodeProfName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associated - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "name : Multicast_Default"* the name of the scheduler-node profile to be mapped on multicast port
[no] bc-scheduler-node	Parameter type: <Qos::SchedulerNodeProfName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associated - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "name : Broadcast_Default"* the name of the scheduler-node profile to be mapped on broadcast port
[no] ds-schedule-tag	Parameter type: <Qos::DsScheduleTag> Format: (egressoutertag | cvlantag | svlantag) Possible values: - egressoutertag : system default behavior: always the egress outer tag used. - cvlantag : Select downstream scheduler based on the c-vlan. - svlantag : Select downstream scheduler based on the s-vlan.	*optional parameter with default value: "egressoutertag"* specifies downstream scheduler reference

21.49 QoS Interface Queue Configuration Command

Command Description

This command allows the operator to configure a QoS Line Card queue. On the L3 line cards, each user-port (DSL-Link, Shdsl-link or Ethernet Line or LA-Group) supports four downstream buffers, which can be configured independently using buffer acceptance control (BAC) profiles.

The operator can configure downstream buffers, such that the total buffer pool is oversubscribed. Please take note that this allows QoS un-aware packet discard under extreme traffic conditions. When the total downstream buffer pool is over-subscribed, the system logs a warning message.

Queue profile none only for epon,queue profile must have a name for other boards.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos interface (index) queue (queue) [priority <Qos::QosPriority>] [weight <Qos::QosWeight>] [oper-weight <Qos::QosWeight>] [queue-profile <Qos::QosQueueProfName>] [shaper-profile <Qos::QosShaperProfileName>]

Command Parameters

Table 21.49-1 "QoS Interface Queue Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(index)	Format: (<Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PortId> | <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / <Eqpt::OntSlotId> / <Eqpt::OntPortId> | pon : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> | ont : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> | <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / voip | <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / vuni | ellid : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / <Eqpt::LLId> | epon : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> /	physical port or la-group of a user-port Interface

Resource Identifier	Type	Description
	<Eqpt::PonId> | eont : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / <Eqpt::OntSlotId> / <Eqpt::OntPortId> : <Eqpt::UnstackedVlan> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / <Eqpt::OntSlotId> / <Eqpt::OntPortId> : stacked : <Eqpt::SVlan> : <Eqpt::CVlan> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / voip : <Eqpt::UnstackedVlan> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / vuni : <Eqpt::UnstackedVlan> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / voip : stacked : <Eqpt::SVlan> : <Eqpt::CVlan> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / vuni : stacked : <Eqpt::SVlan> : <Eqpt::CVlan> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PortId> : <Eqpt::UnstackedVlan> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PortId> : stacked : <Eqpt::SVlan> : <Eqpt::CVlan> | chpair : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::ChannelPairId> | ont:ng2 : <Eqpt::ChannelGroupId> / <Eqpt::SubChannelGroupId> / <Eqpt::Ng2OntId> | uni:ng2 : <Eqpt::ChannelGroupId> / <Eqpt::SubChannelGroupId> / <Eqpt::Ng2OntId> / <Eqpt::Ng2OntSlotId> / <Eqpt::Ng2OntPortId> | vlan:ng2 : <Eqpt::ChannelGroupId> / <Eqpt::SubChannelGroupId> / <Eqpt::Ng2OntId> / <Eqpt::Ng2OntSlotId> / <Eqpt::Ng2OntPortId> : <Eqpt::UnstackedVlan> | vlan:ng2 : <Eqpt::ChannelGroupId> / <Eqpt::SubChannelGroupId> / <Eqpt::Ng2OntId> / <Eqpt::Ng2OntSlotId> / <Eqpt::Ng2OntPortId> : stacked : <Eqpt::SVlan> : <Eqpt::CVlan> | ltbackpl : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> | uni:ng2 : <Eqpt::ChannelGroupId> / <Eqpt::SubChannelGroupId> / <Eqpt::Ng2OntId> / vuni | vlan:ng2 : <Eqpt::ChannelGroupId> / <Eqpt::SubChannelGroupId> / <Eqpt::Ng2OntId> / vuni : <Eqpt::UnstackedVlan> | vlan:ng2 : <Eqpt::ChannelGroupId> / <Eqpt::SubChannelGroupId> / <Eqpt::Ng2OntId> / vuni : stacked : <Eqpt::SVlan> : <Eqpt::CVlan> | x-pon : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::XPonId> | 25g-pon : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::M25GPonId>) Possible values: - pon : pon	

Resource Identifier	Type	Description
	- x-pon : xgs pon - 25g-pon : 25g pon - chpair : channel pair - ont : ont - epon : epon - eont : eont - ellid : ellid - vlan : vlan - ont:ng2 : ngpon2 ONT style identification - uni:ng2 : ngpon2 UNI style identification - vlan:ng2 : ngpon2 vlan - ltbackpl : Backplane Port on LT Field type <Eqpt::RackId> - the rack number Field type <Eqpt::ShelfId> - the shelf number Field type <Eqpt::SlotId> - the LT slot number Field type <Eqpt::PortId> - the port number Field type <Eqpt::PonId> - the PON identifier Field type <Eqpt::XPonId> - the XGS PON identifier Field type <Eqpt::M25GPonId> - the 25G PON identifier Field type <Eqpt::ChannelPairId> - the channel pair identifier Field type <Eqpt::ChannelGroupId> - the channel group identifier Field type <Eqpt::SubChannelGroupId> - the subchannel group identifier Field type <Eqpt::OntId> - the ONT identifier Field type <Eqpt::Ng2OntId> - the NG2 ONT identifier Field type <Eqpt::LLId> - the LLID identifier,range 1 for EPON,range 1-8 for DPOE Possible values: - voip : virtual uni identifier obsolete alternative replaced by vuni - vuni : virtual uni identifier Possible values: - vuni : virtual NGPON2 uni identifier Field type <Eqpt::OntSlotId> - the ONT SLOT identifier Field type <Eqpt::OntPortId> - the ONT PORT identifier Field type <Eqpt::Ng2OntSlotId> - the NGPON2 ONT SLOT identifier Field type <Eqpt::Ng2OntPortId> - the NGPON2 ONT PORT identifier Possible values: - stacked : stacked vlan identity Field type <Eqpt::UnstackedVlan> - unstacked vlan id Field type <Eqpt::SVlan>	

Resource Identifier	Type	Description
	- service vlan id Field type <Eqpt::CVlan> - customer vlan id	
(queue)	Format: - output dsl/gpon/epon port queue number - range: [0...7,255]	queue in scope of 1 user-port Interface on a line-interface-module

Table 21.49-2 "QoS Interface Queue Configuration Command" Command Parameters

Parameter	Type	Description
priority	Parameter type: <Qos::QosPriority> Format: - relative priority - range: [1...8]	*optional parameter* relative priority of the scheduler
weight	Parameter type: <Qos::QosWeight> Format: - relative weight - range: [0...127]	*optional parameter* relative weight of the scheduler
oper-weight	Parameter type: <Qos::QosWeight> Format: - relative weight - range: [0...127]	*optional parameter* relative weight of the scheduler - operational value
queue-profile	Parameter type: <Qos::QosQueueProfName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associated - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter* name of the queue profile
shaper-profile	Parameter type: <Qos::QosShaperProfileName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associated - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter* name of the shaper profile

21.50 QoS Interface Upstream Queue Configuration Command

Command Description

This command allows the operator to configure the upstream queues on the LIM with queue profiles

The operator can configure the upstream queue priority and upstream queue weight along with an option to enable or disable the bandwidth sharing.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos interface (index) upstream-queue (queue) [no priority | priority <Qos::QosPriority>] [no weight | weight <Qos::QosWeight>] [no bandwidth-profile | bandwidth-profile <Qos::QosBandwidthProfileName>] [no ext-bw | ext-bw <Qos::QosBandwidthProfileName>] [no bandwidth-sharing | bandwidth-sharing <Qos::BandwidthSharing>] [no queue-profile | queue-profile <Qos::QosQueueProfName>] [no shaper-profile | shaper-profile <Qos::QosShaperProfileName>]

Command Parameters

Table 21.50-1 "QoS Interface Upstream Queue Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(index)	Format: (<Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PortId> | <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / <Eqpt::OntSlotId> / <Eqpt::OntPortId> | pon : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> | ont : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> | <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / voip | <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / vuni | ellid : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / <Eqpt::LLId> | epon : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> | eont : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> /	physical port or la-group of a user-port Interface

Resource Identifier	Type	Description
	<Eqpt::PonId> / <Eqpt::OntId> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / <Eqpt::OntSlotId> / <Eqpt::OntPortId> : <Eqpt::UnstackedVlan> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / <Eqpt::OntSlotId> / <Eqpt::OntPortId> : stacked : <Eqpt::SVlan> : <Eqpt::CVlan> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / voip : <Eqpt::UnstackedVlan> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / vuni : <Eqpt::UnstackedVlan> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / voip : stacked : <Eqpt::SVlan> : <Eqpt::CVlan> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / vuni : stacked : <Eqpt::SVlan> : <Eqpt::CVlan> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PortId> : <Eqpt::UnstackedVlan> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PortId> : stacked : <Eqpt::SVlan> : <Eqpt::CVlan> | chpair : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::ChannelPairId> | ont:ng2 : <Eqpt::ChannelGroupId> / <Eqpt::SubChannelGroupId> / <Eqpt::Ng2OntId> | uni:ng2 : <Eqpt::ChannelGroupId> / <Eqpt::SubChannelGroupId> / <Eqpt::Ng2OntId> / <Eqpt::Ng2OntSlotId> / <Eqpt::Ng2OntPortId> | vlan:ng2 : <Eqpt::ChannelGroupId> / <Eqpt::SubChannelGroupId> / <Eqpt::Ng2OntId> / <Eqpt::Ng2OntSlotId> / <Eqpt::Ng2OntPortId> : <Eqpt::UnstackedVlan> | vlan:ng2 : <Eqpt::ChannelGroupId> / <Eqpt::SubChannelGroupId> / <Eqpt::Ng2OntId> / <Eqpt::Ng2OntSlotId> / <Eqpt::Ng2OntPortId> : stacked : <Eqpt::SVlan> : <Eqpt::CVlan> | ltbackpl : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> | uni:ng2 : <Eqpt::ChannelGroupId> / <Eqpt::SubChannelGroupId> / <Eqpt::Ng2OntId> / vuni | vlan:ng2 : <Eqpt::ChannelGroupId> / <Eqpt::SubChannelGroupId> / <Eqpt::Ng2OntId> / vuni : <Eqpt::UnstackedVlan> | vlan:ng2 : <Eqpt::ChannelGroupId> / <Eqpt::SubChannelGroupId> / <Eqpt::Ng2OntId> / vuni : stacked : <Eqpt::SVlan> : <Eqpt::CVlan> | x-pon : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::XPonId> | 25g-pon : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::M25GPonId>) Possible values: - pon : pon - x-pon : xgs pon - 25g-pon : 25g pon	

Resource Identifier	Type	Description
	- chpair : channel pair - ont : ont - epon : epon - eont : eont - ellid : ellid - vlan : vlan - ont:ng2 : ngpon2 ONT style identification - uni:ng2 : ngpon2 UNI style identification - vlan:ng2 : ngpon2 vlan - ltbackpl : Backplane Port on LT Field type <Eqpt::RackId> - the rack number Field type <Eqpt::ShelfId> - the shelf number Field type <Eqpt::SlotId> - the LT slot number Field type <Eqpt::PortId> - the port number Field type <Eqpt::PonId> - the PON identifier Field type <Eqpt::XPonId> - the XGS PON identifier Field type <Eqpt::M25GPonId> - the 25G PON identifier Field type <Eqpt::ChannelPairId> - the channel pair identifier Field type <Eqpt::ChannelGroupId> - the channel group identifier Field type <Eqpt::SubChannelGroupId> - the subchannel group identifier Field type <Eqpt::OntId> - the ONT identifier Field type <Eqpt::Ng2OntId> - the NG2 ONT identifier Field type <Eqpt::LLId> - the LLID identifier,range 1 for EPON,range 1-8 for DPOE Possible values: - voip : virtual uni identifier obsolete alternative replaced by vuni - vuni : virtual uni identifier Possible values: - vuni : virtual NGPON2 uni identifier Field type <Eqpt::OntSlotId> - the ONT SLOT identifier Field type <Eqpt::OntPortId> - the ONT PORT identifier Field type <Eqpt::Ng2OntSlotId> - the NGPON2 ONT SLOT identifier Field type <Eqpt::Ng2OntPortId> - the NGPON2 ONT PORT identifier Possible values: - stacked : stacked vlan identity Field type <Eqpt::UnstackedVlan> - unstacked vlan id Field type <Eqpt::SVlan> - service vlan id Field type <Eqpt::CVlan>	

Resource Identifier	Type	Description
	- customer vlan id	
(queue)	Format: - output dsl/gpon/epon port queue number - range: [0...7,255]	queue in scope of 1 user-port Interface on a line-interface-module or ont uni, value 255 indicates the configuration is on the interface not on the queue

Table 21.50-2 "QoS Interface Upstream Queue Configuration Command" Command Parameters

Parameter	Type	Description
[no] priority	Parameter type: <Qos::QosPriority> Format: - relative priority - range: [1...8]	*optional parameter with default value: 1* relative priority
[no] weight	Parameter type: <Qos::QosWeight> Format: - relative weight - range: [0...127]	*optional parameter with default value: 1* relative weight
[no] bandwidth-profile	Parameter type: <Qos::QosBandwidthProfileName> Format: (name : <Qos::IgnoredQosProfileName> | none) Possible values: - none : no profile name to associate - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* the name of the bandwidth profile. For EPON OLT in downstream, this profile used for DBA on 1G PON bandwidth.
[no] ext-bw	Parameter type: <Qos::QosBandwidthProfileName> Format: (name : <Qos::IgnoredQosProfileName> | none) Possible values: - none : no profile name to associate - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* the name of the bandwidth profile. For EPON OLT in downstream, this profile used for DBA on 10G PON bandwidth.
[no] bandwidth-sharing	Parameter type: <Qos::BandwidthSharing> Format: (no-sharing | uni-sharing | ont-sharing | vlan-port-sharing) Possible values: - no-sharing : disable shaper sharing - uni-sharing : enable BW or TCONT sharing on a single UNI - ont-sharing : enable BW or TCONT sharing on across UNIs of an ONT - vlan-port-sharing : enable BW or TCONT sharing on a vlan port	*optional parameter with default value: "no-sharing"* enable or disable shaper sharing
[no] queue-profile	Parameter type: <Qos::QosQueueProfName> Format: (none	*optional parameter with default value: "none"* name of the queue profile

Parameter	Type	Description
	| name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associated - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	
[no] shaper-profile	Parameter type: <Qos::QosShaperProfileName> Format: (none | name : <Qos::IgnoredQosProfileName>) Possible values: - none : no profile name to associated - name : enter profile name to be associated Data driven field type Possible values are depending on the actual configuration and software. The currently allowed values can be shown with online-help.	*optional parameter with default value: "none"* name of the shaper profile

21.51 QoS Interface Remote Downstream Queue Configuration Command

Command Description

This command allows the operator to configure the downstream queues on the ONT.

The operator can configure the downstream queue priority and downstream queue weight at the ONT.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos interface (index) ds-rem-queue (queue) [no priority | priority <Qos::QosPriority>] [no weight | weight <Qos::QosWeight>]

Command Parameters

Table 21.51-1 "QoS Interface Remote Downstream Queue Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(index)	Format: (<Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PortId> | <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / <Eqpt::OntSlotId> / <Eqpt::OntPortId> | pon : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> | ont : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> | <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / voip | <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / vuni | ellid : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / <Eqpt::LLId> | epon : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> | eont : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / <Eqpt::OntSlotId> /	physical port or la-group of a user-port Interface

Resource Identifier	Type	Description
	<Eqpt::OntPortId> : <Eqpt::UnstackedVlan> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / <Eqpt::OntSlotId> / <Eqpt::OntPortId> : stacked : <Eqpt::SVlan> : <Eqpt::CVlan> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / voip : <Eqpt::UnstackedVlan> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / vuni : <Eqpt::UnstackedVlan> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / voip : stacked : <Eqpt::SVlan> : <Eqpt::CVlan> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PonId> / <Eqpt::OntId> / vuni : stacked : <Eqpt::SVlan> : <Eqpt::CVlan> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PortId> : <Eqpt::UnstackedVlan> | vlan : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::PortId> : stacked : <Eqpt::SVlan> : <Eqpt::CVlan> | chpair : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::ChannelPairId> | ont:ng2 : <Eqpt::ChannelGroupId> / <Eqpt::SubChannelGroupId> / <Eqpt::Ng2OntId> | uni:ng2 : <Eqpt::ChannelGroupId> / <Eqpt::SubChannelGroupId> / <Eqpt::Ng2OntId> / <Eqpt::Ng2OntSlotId> / <Eqpt::Ng2OntPortId> | vlan:ng2 : <Eqpt::ChannelGroupId> / <Eqpt::SubChannelGroupId> / <Eqpt::Ng2OntId> / <Eqpt::Ng2OntSlotId> / <Eqpt::Ng2OntPortId> : <Eqpt::UnstackedVlan> | vlan:ng2 : <Eqpt::ChannelGroupId> / <Eqpt::SubChannelGroupId> / <Eqpt::Ng2OntId> / <Eqpt::Ng2OntSlotId> / <Eqpt::Ng2OntPortId> : stacked : <Eqpt::SVlan> : <Eqpt::CVlan> | ltbackpl : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> | uni:ng2 : <Eqpt::ChannelGroupId> / <Eqpt::SubChannelGroupId> / <Eqpt::Ng2OntId> / vuni | vlan:ng2 : <Eqpt::ChannelGroupId> / <Eqpt::SubChannelGroupId> / <Eqpt::Ng2OntId> / vuni : <Eqpt::UnstackedVlan> | vlan:ng2 : <Eqpt::ChannelGroupId> / <Eqpt::SubChannelGroupId> / <Eqpt::Ng2OntId> / vuni : stacked : <Eqpt::SVlan> : <Eqpt::CVlan> | x-pon : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::XPonId> | 25g-pon : <Eqpt::RackId> / <Eqpt::ShelfId> / <Eqpt::SlotId> / <Eqpt::M25GPonId>) Possible values: - pon : pon - x-pon : xgs pon - 25g-pon : 25g pon - chpair : channel pair - ont : ont - epon : epon	

Resource Identifier	Type	Description
	- eont : eont - ellid : ellid - vlan : vlan - ont:ng2 : ngpon2 ONT style identification - uni:ng2 : ngpon2 UNI style identification - vlan:ng2 : ngpon2 vlan - ltbackpl : Backplane Port on LT Field type <Eqpt::RackId> - the rack number Field type <Eqpt::ShelfId> - the shelf number Field type <Eqpt::SlotId> - the LT slot number Field type <Eqpt::PortId> - the port number Field type <Eqpt::PonId> - the PON identifier Field type <Eqpt::XPonId> - the XGS PON identifier Field type <Eqpt::M25GPonId> - the 25G PON identifier Field type <Eqpt::ChannelPairId> - the channel pair identifier Field type <Eqpt::ChannelGroupId> - the channel group identifier Field type <Eqpt::SubChannelGroupId> - the subchannel group identifier Field type <Eqpt::OntId> - the ONT identifier Field type <Eqpt::Ng2OntId> - the NG2 ONT identifier Field type <Eqpt::LLId> - the LLID identifier,range 1 for EPON,range 1-8 for DPOE Possible values: - voip : virtual uni identifier obsolete alternative replaced by vuni - vuni : virtual uni identifier Possible values: - vuni : virtual NGPON2 uni identifier Field type <Eqpt::OntSlotId> - the ONT SLOT identifier Field type <Eqpt::OntPortId> - the ONT PORT identifier Field type <Eqpt::Ng2OntSlotId> - the NGPON2 ONT SLOT identifier Field type <Eqpt::Ng2OntPortId> - the NGPON2 ONT PORT identifier Possible values: - stacked : stacked vlan identity Field type <Eqpt::UnstackedVlan> - unstacked vlan id Field type <Eqpt::SVlan> - service vlan id Field type <Eqpt::CVlan> - customer vlan id	
(queue)	Format: - output dsl/gpon/epon port queue number	queue in scope of 1 user-port Interface on a

Resource Identifier	Type	Description
	- range: [0...7,255]	line-interface-module or ont uni, value 255 indicates the configuration is on the interface not on the queue

Table 21.51-2 "QoS Interface Remote Downstream Queue Configuration Command" Command Parameters

Parameter	Type	Description
[no] priority	Parameter type: <Qos::QosPriority> Format: - relative priority - range: [1...8]	*optional parameter with default value: 1* relative priority
[no] weight	Parameter type: <Qos::QosWeight> Format: - relative weight - range: [0...127]	*optional parameter with default value: 10* relative weight

21.52 QoS Line Control Packets Rate Limit Configuration Command

Command Description

This command allows the operator to configure police rate and burst per protocl.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos (no ctrl-pkt-policer (protocol-id)) | (ctrl-pkt-policer (protocol-id) [no sustained-rate | sustained-rate <Qos::SustainedRate>] [no burst-size | burst-size <Qos::DslCtrlBurstSize>])

Command Parameters

Table 21.52-1 "QoS Line Control Packets Rate Limit Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(protocol-id)	Format: (arp | igmp | dhcpv4 | dhcpv6 | icmpv6 | cfm | pppox) Possible values: - arp : arp - igmp : igmp - dhcpv4 : dhcpv4 - dhcpv6 : dhcpv6 - icmpv6 : icmpv6 - cfm : cfm - pppox : pppox	protocol id for arp, igmp, dhcpv4, dhcpv6, icmpv6, cfm, pppox

Table 21.52-2 "QoS Line Control Packets Rate Limit Configuration Command" Command Parameters

Parameter	Type	Description
[no] sustained-rate	Parameter type: <Qos::SustainedRate> Format: - the police rate of inc user pkts in pps - range: [1...64]	*optional parameter with default value: 15* police the user incoming packets on all pvc's for the protocol of a

Parameter	Type	Description
		dsl line.
[no] burst-size	Parameter type: <Qos::DslCtrlBurstSize> Format: - the burst size - range: [1...128]	*optional parameter with default value: 10* police the user incoming packets on all pvc's for the protocol of a dsl line.

21.53 P-bit Based Scheduling For SC Forwarder Cross Connect/Residential Bridge Configuration Command

Command Description

This command allows the operator to configure the P-bit based scheduling for the S+C VLAN forwarder model for Cross Connect / Residential Bridge.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos pbit-scheduling [no sc-xcon-us | sc-xcon-us <Qos::PbitSched>] [no sc-xcon-dn | sc-xcon-dn <Qos::PbitSched>] [no sc-rb-us | sc-rb-us <Qos::PbitSched>] [no sc-rb-dn | sc-rb-dn <Qos::PbitSched>]

Command Parameters

Table 21.53-2 "P-bit Based Scheduling For SC Forwarder Cross Connect/Residential Bridge Configuration Command" Command Parameters

Parameter	Type	Description
[no] sc-xcon-us	Parameter type: <Qos::PbitSched> Format: (svlanpbitbased | cvlanpbitbased) Possible values: - svlanpbitbased : Upstream p-bits affecting QoS action applies to S-VLAN p-bits and C-VLAN p-bits. Downstream S-VLAN p-bits are copied to User-VLAN p-bits - cvlanpbitbased : Upstream p-bits affecting QoS action applies to S-VLAN p-bits. Downstream C-VLAN p-bits are copied to User-VLAN p-bits	*optional parameter with default value: "svlanpbitbased"* This objects configure the behavior of pbit scheduling in S+C Vlan Cross Connect in upstream direction
[no] sc-xcon-dn	Parameter type: <Qos::PbitSched> Format: (svlanpbitbased | cvlanpbitbased) Possible values: - svlanpbitbased : Upstream p-bits affecting QoS action applies to S-VLAN p-bits and C-VLAN p-bits. Downstream S-VLAN p-bits are copied to User-VLAN p-bits - cvlanpbitbased : Upstream p-bits affecting QoS action	*optional parameter with default value: "svlanpbitbased"* This objects configure the behavior of pbit scheduling in S+C Vlan Cross Connect in downstream direction

Parameter	Type	Description
	applies to S-VLAN p-bits. Downstream C-VLAN p-bits are copied to User-VLAN p-bits	
[no] sc-rb-us	Parameter type: <Qos::PbitSched> Format: (svlanpbitbased | cvlanpbitbased) Possible values: - svlanpbitbased : Upstream p-bits affecting QoS action applies to S-VLAN p-bits and C-VLAN p-bits. Downstream S-VLAN p-bits are copied to User-VLAN p-bits - cvlanpbitbased : Upstream p-bits affecting QoS action applies to S-VLAN p-bits. Downstream C-VLAN p-bits are copied to User-VLAN p-bits	*optional parameter with default value: "svlanpbitbased"* This objects configure the behavior of pbit scheduling in S+C Vlan iBridge in upstream direction
[no] sc-rb-dn	Parameter type: <Qos::PbitSched> Format: (svlanpbitbased | cvlanpbitbased) Possible values: - svlanpbitbased : Upstream p-bits affecting QoS action applies to S-VLAN p-bits and C-VLAN p-bits. Downstream S-VLAN p-bits are copied to User-VLAN p-bits - cvlanpbitbased : Upstream p-bits affecting QoS action applies to S-VLAN p-bits. Downstream C-VLAN p-bits are copied to User-VLAN p-bits	*optional parameter with default value: "cvlanpbitbased"* This objects configure the behavior of pbit scheduling in S+C Vlan iBridge in downstream direction

21.54 QoS system level Up Control Packet DSCP/Pbit marking, TC mapping Configuration Command

Command Description

This command allows the operator to configure QoS DSCP, Pbit marking, TC mapping for various protocols control packet in upstream direction.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos (no up-ctrl-pkt (protocol-id)) | (up-ctrl-pkt (protocol-id) [no dscp | dscp <Qos::dscpvalue>] [no pbit | pbit <Qos::pbitvalue>] [no tc | tc <Qos::tcvalue>])

Command Parameters

Table 21.54-1 "QoS system level Up Control Packet DSCP/Pbit marking, TC mapping Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(protocol-id)	Format: (arp | igmp | dhcpv4 | dhcpv6 | icmpv6 | cfm | pppox | lacp | dot1x) Possible values: - arp : configure DSCP/Pbit marking, TC mapping for arp protocol ctrl packet - igmp : configure DSCP/Pbit marking, TC mapping for igmp protocol ctrl packet - dhcpv4 : configure DSCP/Pbit marking, TC mapping for dhcpv4 protocol ctrl packet - dhcpv6 : configure DSCP/Pbit marking, TC mapping for dhcpv6 protocol ctrl packet - icmpv6 : configure DSCP/Pbit marking, TC mapping for	protocol id for arp, igmp, dhcpv4, dhcpv6, icmpv6, cfm, pppox, lacp, dot1x

Resource Identifier	Type	Description
	icmpv6 protocol ctrl packet - cfm : configure DSCP/Pbit marking, TC mapping for cfm protocol ctrl packet - pppox : configure DSCP/Pbit marking, TC mapping for pppox protocol ctrl packet - lacp : configure DSCP/Pbit marking, TC mapping for lacp protocol ctrl packet - dot1x : configure DSCP/Pbit marking, TC mapping for dot1x protocol ctrl packet	

Table 21.54-2 "QoS system level Up Control Packet DSCP/Pbit marking, TC mapping Configuration Command" Command Parameters

Parameter	Type	Description
[no] dscp	Parameter type: <Qos::dscpvalue> Format: - dscp value range - range: [-1...63]	*optional parameter with default value: -1L* configure the dscp value
[no] pbit	Parameter type: <Qos::pbitvalue> Format: - pbit value range - range: [-1...7]	*optional parameter with default value: 7L* configure the P-bit value
[no] tc	Parameter type: <Qos::tcvalue> Format: - traffic class value range - range: [-1...7]	*optional parameter with default value: -1L* configure the traffic class value

21.55 QoS system level Dn Control Packet DSCP/Pbit marking, TC mapping Configuration Command

Command Description

This command allows the operator to configure QoS DSCP, Pbit marking, TC mapping for various protocols control packet in downstream direction.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos (no dn-ctrl-pkt (protocol-id)) | (dn-ctrl-pkt (protocol-id) [no dscp | dscp <Qos::dscpvalue>] [no pbit | pbit <Qos::pbitvalue>] [no tc | tc <Qos::tcvalue>])

Command Parameters

Table 21.55-1 "QoS system level Dn Control Packet DSCP/Pbit marking, TC mapping Configuration Command" Resource Parameters

Resource Identifier	Type	Description
(protocol-id)	Format: (arp | igmp | dhcpv4 | dhcpv6 | icmpv6 | cfm | pppox | lacp | dot1x) Possible values: - arp : configure DSCP/Pbit marking, TC mapping for arp protocol ctrl packet - igmp : configure DSCP/Pbit marking, TC mapping for igmp protocol ctrl packet - dhcpv4 : configure DSCP/Pbit marking, TC mapping for dhcpv4 protocol ctrl packet - dhcpv6 : configure DSCP/Pbit marking, TC mapping for dhcpv6 protocol ctrl packet - icmpv6 : configure DSCP/Pbit marking, TC mapping for	protocol id for arp, igmp, dhcpv4, dhcpv6, icmpv6, cfm, pppox, lacp, dot1x

Resource Identifier	Type	Description
	icmpv6 protocol ctrl packet - cfm : configure DSCP/Pbit marking, TC mapping for cfm protocol ctrl packet - pppox : configure DSCP/Pbit marking, TC mapping for pppox protocol ctrl packet - lacp : configure DSCP/Pbit marking, TC mapping for lacp protocol ctrl packet - dot1x : configure DSCP/Pbit marking, TC mapping for dot1x protocol ctrl packet	

Table 21.55-2 "QoS system level Dn Control Packet DSCP/Pbit marking, TC mapping Configuration Command" Command Parameters

Parameter	Type	Description
[no] dscp	Parameter type: <Qos::dscpvalue> Format: - dscp value range - range: [-1...63]	*optional parameter with default value: -1L* configure the dscp value
[no] pbit	Parameter type: <Qos::pbitvalue> Format: - pbit value range - range: [-1...7]	*optional parameter with default value: 7L* configure the P-bit value
[no] tc	Parameter type: <Qos::tcvalue> Format: - traffic class value range - range: [-1...7]	*optional parameter with default value: -1L* configure the traffic class value

21.56 QoS handling of upstream protocols(ARP, PPPoE, DHCPv4/v6,ND and MLD) for DSL LT's Configuration Command

Command Description

This command allows the operator to configure the QoS handling of upstream protocols(ARP, PPPoE, DHCPv4/v6,ND and MLD) for DSL LT's.

User Level

The command can be accessed by operators with qos privileges, and executed by operators with qos privileges.

Command Syntax

The command has the following syntax:

> configure qos upstr-prot-dsl [[no] enable]

Command Parameters

Table 21.56-2 "QoS handling of upstream protocols(ARP, PPPoE, DHCPv4/v6,ND and MLD) for DSL LT's Configuration Command" Command Parameters

Parameter	Type	Description
[no] enable	Parameter type: boolean	*optional parameter* Enable QoS handling of upstream protocols