

Service SAP QoS Policy Command Reference

Command Hierarchies

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Service Ingress QoS Policy Commands

```
config
— qos
— [no] sap-ingress policy-id | policy-name
— default-fc fc-name
— no default-fc
— default-priority {low | high}
— no default-priority
— description description-string
— no description
— dot1p dot1p-priority [fc fc-name] [priority {low | high}]
— no dot1p dot1p-priority
— dscp dscp-name [fc fc-name] [priority {low | high}]
— no dscp dscp-name
— dynamic-policer
— range start-entry policer-id count count
— no range
— [no] fc fc-name
— policer policer-id [fp-redirect-group]
— no policer
— broadcast-policer policer-id [fp-redirect-group]
— no broadcast-policer
— broadcast-queue queue-id [group queue-group-name]
— no broadcast-queue
— [no] de-1-out-profile
— egress-fc fc-name
— no egress-fc
— in-remark dscp dscp-name
— in-remark prec ip-prec-value
— no in-remark
— multicast-policer policer-id [fp-redirect-group]
— no multicast-policer
— multicast-queue queue-id [group queue-group-name]
— no multicast-queue
— out-remark dscp dscp-name
— out-remark prec ip-prec-value
```

```

— no out-remark
— profile {in | out}
— no profile
— queue queue-id [{group queue-group-name [instance instance-id]} | port-
  redirect-group-queue]
— no queue
— unknown-policer policer-id [fp-redirect-group]
— no unknown-policer
— unknown-queue queue-id [group queue-group-name]
— no unknown-queue
— [no] ip-criteria
— [no] entry entry-id
  — action [fc fc-name] [priority {high | low}] [policer policer-id]
  — no action
  — description description-string
  — no description
  — match [protocol protocol-id]
  — no match
    — dscp dscp-name
    — no dscp
    — dst-ip {ip-address/mask | ip-address ipv4-address-mask |
      ip-prefix-list prefix-list-name}
    — no dst-ip
    — dst-port {lt | gt | eq} dst-port-number
    — dst-port range start end
    — no dst-port
    — fragment {true | false}
    — no fragment
    — src-ip {ip-address/mask | ip-address ipv4-address-mask |
      ip-prefix-list prefix-list-name}
    — no src-ip
    — src-port {lt | gt | eq} src-port-number
    — src-port range start end
    — no src-port
  — renum [old-entry-id new-entry-id]
— [no] ipv6-criteria
— [no] entry entry-id
  — action [fc fc-name] [priority {low | high}] [policer policer-id]
  — no action
  — description description-string
  — no description
  — match [next-header next-header]
  — no match
    — dscp dscp-name
    — no dscp
    — dst-ip {ipv6-address/prefix-length | ipv6-address/ipv6-
      address-mask}
    — no dst-ip
    — dst-port {lt | gt | eq} dst-port-number
    — dst-port range start end
    — no dst-port
    — fragment {true | false |first-only|non-first-only}
    — no fragment

```

- **src-ip** {ipv6-address/prefix-length | ipv6-address/ipv6-address-mask}
- **no src-ip**
- **src-port** {lt | gt | eq} src-port-number
- **src-port range** start end
- **no src-port**
- **renum** [old-entry-id new-entry-id]
- **lsp-exp** lsp-exp-value [fc fc-name] [priority {low|high}] [hsmda-counter-override counter-id]
- **no lsp-exp** lsp-exp-value
- [no] **mac-criteria**
 - [no] **entry** entry-id
 - **action** [fc fc-name] [priority {low | high}] [policer policer-id]
 - **no action**
 - **description** description-string
 - **no description**
 - **match** [frame-type {802dot3 | 802dot2-llc | 802dot2-snap | ethernet-II | atm}]
 - **no match**
 - **atm-vci** vci-value
 - **no atm-vci**
 - **dot1p** dot1p-value [dot1p-mask]
 - **no dot1p**
 - **dsap** dsap-value [dsap-mask]
 - **no dsap**
 - **dst-mac** ieee-address [ieee-address-mask]
 - **no dst-mac**
 - **etype** etype-value
 - **no etype**
 - **inner-tag** value [vid-mask]
 - **no inner-tag**
 - **outer-tag** value [vid-mask]
 - **no outer-tag**
 - **snap-oui** [zero | non-zero]
 - **no snap-oui**
 - **snap-pid** snap-pid
 - **no snap-pid**
 - **src-mac** ieee-address [ieee-address-mask]
 - **no src-mac**
 - **ssap** ssap-value [ssap-mask]
 - **no ssap**
 - **renum** old-entry-number new-entry-number
 - **type** filter-type
 - **policer** policer-id [create]
 - **no policer** policer-id
 - **adaptation-rule** pir {max | min | closest} [cir {max | min | closest}]
 - **no adaptation-rule**
 - **adv-config-policy** policy-name
 - **no adv-config-policy**
 - **description** description-string
 - **no description**
 - **cbs** {size [bytes | kilobytes] | default}
 - **no cbs**
 - **high-prio-only** percent-of-mbs

- **no high-prio-only**
- **mbs** {size [bytes | kilobytes] | default}
- **no mbs**
- **packet-byte-offset** {add bytes | subtract bytes}
- **no packet-byte-offset**
- **parent** {root | arbiter-name} [level level] [weight weight-within-level]
- **no parent**
- **percent-rate** pir-percent [cir cir-percent]
- **no percent-rate**
- **no profile-capped**
- **rate** {max | kilobits-per-second} [cir {max | kilobits-per-second}]
- **no rate**
- **stat-mode** {no-stats | minimal | offered-profile-no-cir | offered-priority-no-cir | offered-limited-profile-cir | offered-profile-cir | offered-priority-cir | offered-total-cir | offered-profile-capped-cir | offered-limited-capped-cir}
- **no stat-mode**
- **prec** ip-prec-value [fc fc-name] [priority {low | high}]
- **no prec** ip-prec-value
- **queue** queue-id [multipoint] [queue-type] [queue-mode] pool pool-name
- **no queue** queue-id
 - **adaptation-rule** [pir adaptation-rule] [cir adaptation-rule]
 - **no adaptation-rule**
 - **adv-config-policy** policy-name
 - **no adv-config-policy**
 - **burst-limit**
 - **no burst-limit**
 - **cbs** size-in-kbytes
 - **no cbs**
 - **high-prio-only** percent
 - **no high-prio-only**
 - **mbs** size [bytes|kilobytes]
 - **no mbs**
 - **packet-byte-offset** {add bytes | subtract bytes}
 - **no packet-byte-offset**
 - **parent** scheduler-name [weight weight] [level level] [cir-weight cir-weight] [cir-level cir-level]
 - **no parent**
 - **percent-rate** pir-percent [cir cir-percent] [port-limit|local-limit]
 - **percent-rate** pir-percent police [port-limit|local-limit]
 - **no percent-rate**
 - [no] **pool** pool-name
 - **rate** pir-rate [cir cir-rate | police]
 - **no rate**
- **scope** {exclusive | template}
- **no scope**
- **sub-insert-shared-pccrule** start-entry entry-id count count
- **no sub-insert-shared-pccrule**

Service Egress QoS Policy Commands

```

config
— qos
— [no] sap-egress policy-id | policy-name
— description description-string
— no description
— dot1p dot1p-value [fc fc-name] [profile {in | out | use-de}]
— no dot1p dot1p-value
— dscp dscp-list [hsmda-counter-override counter-id] [fc fc-name] [profile {in | out}]
— no dscp dscp-list
— dynamic-policer
— range start-entry policer-id count count
— no range
— ethernet-ctag
— no ethernet-ctag
— fc fc-name
— no fc fc-name
— [no] de-mark [force de-value]
— [no] de-mark-inner [force de-value]
— [no] de-mark-outer [force de-value]
— [no] dot1p {dot1p-value | in-profile dot1p-value out-profile dot1p-value}
— [no] dot1p-inner {dot1p-value | in-profile dot1p-value out-profile dot1p-value}
— [no] dot1p-outer {dot1p-value | in-profile dot1p-value out-profile dot1p-value}
— dscp {dscp-name | in-profile dscp-name out-profile dscp-name}
— no dscp
— hsmda
— queue [1..8]
— no queue
— policer policer-id [ {port-redirect-group-queue [queue queue-id] } | {group
queue-group-name [instance instance-id] [queue group-queue-id] } ]
— no policer
— prec ip-prec-value [hsma-counter-override counter-id] [fc fc-name] [profile
{in | out}]
— no prec ip-prec-value
— queue queue-id [ {group queue-group-name [instance instance-id] } | port-redirect-group-queue ]
— no queue
— hsmda-queues
— [no] low-burst-max-class class-id
— packet-byte-offset {add add-bytes | subtract sub-bytes}
— no packet-byte-offset
— queue queue-id [port-redirect-group-queue]
— no queue queue-id
— adaptation-rule [pir adaptation-rule]
— no adaptation-rule
— burst-limit size [bytes|kilobytes]
— no burst-limit
— mbs {[0..2625][kilobytes] | [0..2688000]bytes | default }
— no mbs

```

```

— rate pir-rate {max | kilobits-per-second}
— no rate
— slope-policy hsmda-slope-policy-name
— no slope-policy
— [no] wrr-weight weight
— [no] wrr-policy wrr-policy-name
— [no] ip-criteria
— entry entry-id [create]
— no entry entry-id
— action [hsmda-counter-override counter-id] [fc fc-name] [profile
{in | out}] [policer policer-id] [port-redirect-group-queue queue
queue-id | queue queue-id | use-fc-mapped-queue]
— no action
— description description string
— no description
— match [protocol protocol-id]
— no match
— dscp dscp-name
— no dscp
— dst-ip {ip-address/mask | ip-address ipv4-address-mask | ip-
prefix-list prefix-list-name}
— no dst-ip
— dst-port {lt|gt|cq} dst-port-number
— dst-port range start end
— no dst-port
— fragment {true|false}
— no fragment
— src-ip {ip-address/mask | ip-address ipv4-address-mask |
ip-prefix-list prefix-list-name}
— no src-ip
— src-port {lt|gt|eq} src-port-number
— src-port range start end
— no src-port port
— renum old-entry-id new-entry-id
— [no] ipv6-criteria
— entry entry-id [create]
— no entry entry-id
— action [hsmda-counter-override counter-id] [fc fc-name] [profile
{in | out}] [policer policer-id] [port-redirect-group-queue queue
queue-id | queue queue-id | use-fc-mapped-queue]
— no action
— description description string
— no description
— match [next-header next header]
— no match
— dscp dscp-name
— no dscp
— dst-ip {ipv6-address/prefix-length | ipv6-address ipv6-
address-mask}
— no dst-ip
— dst-port {lt|gt|cq} dst-port-number
— dst-port range start end
— no dst-port

```

- **src-ip** {*ipv6-address/prefix-length* | *ipv6-address ipv6-address-mask*}
- **no src-ip**
- **src-port** {*lt|gt|eq*} *dst-port-number*
- **src-port range** *start end*
- **no src-port**
- **renum** *old-entry-number new-entry-number*
- **parent-location** {*default|sla*}
- **no parent-location**
- **policer** *policer-id* [*group queue-group-name* [*queue group-queue-id*]]
- **no policer**
 - **adaptation-rule** [*pir* {*max* | *min* | *closest*}] [*cir* {*max* | *min* | *closest*}]
 - **no adaptation-rule**
 - **adv-config-policy** *adv-config-policy-name*
 - **no adv-config-policy**
 - **cbs** {*size* [*bytes* | *kilobytes*] | *default*}
 - **no cbs**
 - **description** *description string*
 - **no description**
 - **high-prio-only** *percent-of-mbs*
 - **no high-prio-only**
 - **mbs** {*size* [*bytes* | *kilobytes*] | *default*}
 - **no mbs**
 - **packet-byte-offset** {*add bytes* | *subtract bytes*}
 - **no packet-byte-offset**
 - **parent** {*root* | *arbiter-name*} [*level level*] [*weight weight-within-level*]
 - **no parent**
 - **percent-rate** *percent-of-line-rate* [*cir percent-of-line-rate*]
 - **no percent-rate**
 - [*no*] **profile-capped**
 - [*no*] **profile-out-preserve**
 - **rate** {*max* | *kilobits-per-second*} [*cir* {*max* | *kilobits-per-second*}]
 - **no rate**
 - **stat-mode** {*no-stats* | *minimal* | *offered-profile-no-cir* | *offered-profile-cir* | *offered-total-cir*}
 - **no stat-mode**
- **policy-name** *policy-name*
- **no policy-name**
- **prec** *ip-prec-value* [*hsmdda-counter-override counter-id*] [*fc fc-name*] [*profile* {*in*|*out*}]
- **no prec** *ip-prec-value*
- **queue** *queue-id* [*multipoint*] [*queue-type*] [*queue-mode*] **pool** *pool-name*
- **no queue** *queue-id*
 - **adaptation-rule** [*pir adaptation-rule*] [*cir adaptation-rule*]
 - **no adaptation-rule**
 - **adv-config-policy** *policy-name*
 - **no adv-config-policy**
 - **avg-frame-overhead** *percent*
 - **no avg-frame-overhead**
 - **burst-limit**
 - **no burst-limit**
 - **cbs** *size-in-kbytes*
 - **no cbs**
 - **high-prio-only** *percent*
 - **no high-prio-only**

- **mbs** *size* [bytes | kilobytes]
- **no mbs**
- **parent** *scheduler-name* [weight *weight*] [level *level*] [cir-weight *cir-weight*] [cir-level *cir-level*]
- **no parent**
- **percent-rate** *pir-percent* [cir *cir-percent*] [port-limit | local-limit]
- **no percent-rate**
- [no] **pool** *pool-name*
- **port-parent** [weight *weight*] [level *level*] [cir-weight *cir-weight*] [cir-level *cir-level*]
- **no port-parent**
- **rate** *pir-rate* [cir *cir-rate*]
- **no rate**
- **xp-specific**
 - **packet-byte-offset** **add** *add-bytes*
 - **packet-byte-offset** **subtract** *sub-bytes*
 - **no packet-byte-offset**
 - **wred-queue** [policy *slope-policy-name*]
 - **no wred-queue**
- **scope** {exclusive | template}
- **no scope**
- **sub-insert-shared-pccrule** **start-entry** *entry-id* **count** *count*
- **no sub-insert-shared-pccrule**

config

- qos
 - **match-list**
 - **ip-prefix-list** *ip-prefix-list-name* [create]
 - **no ip-prefix-list** *ip-prefix-list-name*
 - **description** *string*
 - **no description**
 - **prefix** *ip-prefix/prefix-length*
 - **no prefix** *ip-prefix/prefix-length*

Operational Commands

config

- qos
 - **copy** sap-egress *src-pol dst-pol* [overwrite]
 - **copy** sap-ingress *src-pol dst-pol* [overwrite]
 - **copy** hsmda-pool-policy *src-name dst-name* [overwrite]
 - **copy** hsmda-scheduler-policy *src-name dst-name* [overwrite]
 - **copy** hsmda-slope-policy *src-name dst-name* [overwrite]
 - **copy** named-pool-policy *src-name dst-name* [overwrite]

Show Commands

show

- qos
 - **sap-ingress** *policy-id* [association | match-criteria | hsmda | detail]
 - **sap-egress** [*policy-id*] [association | match-criteria | hsmda | detail]
 - **hsmda-pool-policy** [*hsmda-pool-policy-name*] [associations] [detail]
 - **hsmda-pools** mda *mda-id* {ingress | egress} [detail]
 - **hsmda-scheduler-hierarchy** port *port-id* [{shapers | shaper *shaper-name*}]
 - **hsmda-scheduler-hierarchy** mda *mda-id*
 - **hsmda-scheduler-hierarchy** sap *sap-id* [ingress | egress]
 - **hsmda-scheduler-hierarchy** subscriber *sub-id* [ingress | egress]
 - **hsmda-scheduler-policy** [*hsmda-scheduler-policy-name*] [associations] [detail]
 - **hsmda-slope-policy** [*hsmda-slope-policy-name*] [associations] [detail]

