ZebOS-XP QoS SMI Reference

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1.1 File List

Here is a list of all documented files with brief descriptions:

Chapter 2

File Documentation

2.1 smi_qos.h File Reference

Provides API for managing Quality of Service (QoS). `#include "smi_client.h"`

`#include "smi_qos_msg.h"`

Functions

- int **smi_client_create_n_send_qos_msg** (struct smi_client_handler *async, int vrid, qos_msg *msg, int optype)
- s_int32_t smi_qos_configure_bandwidth_by_rate (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *pmap_name, u_int32_t bw_rate, char *rate_unit)

  Configure a minimum rate of the interface bandwidth to a queue and configure the bandwidth on both ingress and egress queues.

- s_int32_t smi_qos_unconfigure_bandwidth_by_rate (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *pmap_name, u_int32_t bw_rate, char *rate_unit)

  Unconfigure a minimum rate of the interface bandwidth to a queue and configure the bandwidth on both ingress and egress queues.

- s_int32_t smi_qos_configure_bandwidth_by_percent (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *pmap_name, u_int8_t percent)

  Configure a minimum percentage of the interface bandwidth to a queue and configure the bandwidth on both ingress and egress queues.

- s_int32_t smi_qos_unconfigure_bandwidth_by_percent (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *pmap_name, u_int8_t percent)

Unconfigure a minimum percentage of the interface bandwidth to a queue and configure the bandwidth on both ingress and egress queues.

- s_int32_t smi_qos_configure_bandwidth_remaining_percent (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *pmap_name, u_int8_t percent)

  Configure the percentage of the bandwidth remaining on the interface after other allocations are configured on both ingress and egress queues.

- s_int32_t smi_qos_unconfigure_bandwidth_remaining_percent (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *pmap_name, u_int8_t percent)

  Unconfigure the percentage of the bandwidth remaining on the interface after other allocations are configured on both ingress and egress queues.

- s_int32_t smi_qos_add_ref_to_qos_cmap_in_pmap (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *pmap_name)

  Add a reference to an existing qos class map in a policy map.

- s_int32_t smi_qos_delete_ref_to_qos_cmap_in_pmap (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *pmap_name)

  Delete a reference to an existing qos class map in a policy map.

- s_int32_t smi_qos_add_ref_to_qos_default_cmap_in_pmap (struct smiclient_globals *azg, u_int32_t vr_id, char *pmap_name)

  Add a reference to the reserved class name "class-default" that matches all traffic not classified in other classes in a policy map.

- s_int32_t smi_qos_delete_ref_to_qos_default_cmap_in_pmap (struct smiclient_globals *azg, u_int32_t vr_id, char *pmap_name)

  Delete a reference to the reserved class name "class-default" that matches all traffic not classified in other classes in a policy map.

- s_int32_t smi_qos_add_ref_to_queuing_cmap_in_pmap (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *pmap_name)

  Add a reference to an existing queuing class map in a policy map.

- s_int32_t smi_qos_delete_ref_to_queuing_cmap_in_pmap (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *pmap_name)

  Delete a reference to an existing queuing class map in a policy map.

- s_int32_t smi_qos_create_qos_class_map (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *match_criteria)

  Create or modify a type qos class map that defines a class of traffic.

- s_int32_t smi_qos_cmap_no_class_map (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *match_criteria)

  Delete a type qos class map that defines a class of traffic.

- s_int32_t smi_qos_modify_queuing_class_map (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name)

  Modify a type queuing class map that defines a class of traffic.

- s_int32_t smi_qos_clear_statistics_all (struct smiclient_globals *azg, u_int32_t vr_id)

  the Clears the counters for all VLANs and interfaces.

- s_int32_t smi_qos_clear_statistics_per_interface (struct smiclient_globals *azg, u_int32_t vr_id, char *ifname, char *direction, char *qos_type)

  the Clears the counters for the given or all interfaces.

- s_int32_t smi_qos_clear_statistics_per_vlan (struct smiclient_globals *azg, u_int32_t vr_id, u_int16_t vlan_id, char *direction, char *qos_type)

  the Clears the counters for the given or all VLANs.

- s_int32_t smi_qos_class_map_match_access_group (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *acl_name)

  Add a specified access control list (ACL) group as a match criteria for a type qos class map.

- s_int32_t smi_qos_class_map_no_match_access_group (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *acl_name)

  Delete a specified access control list (ACL) group as a match criteria from a type qos class map.

- s_int32_t smi_qos_class_map_match_cos (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *cos_list, u_int8_t negate)

  Add a specified CoS values as a match criteria for a type qos class map.

- s_int32_t smi_qos_class_map_no_match_cos (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *cos_list, u_int8_t negate)

  Delete a specified CoS values as a match criteria for a type qos class map.

- s_int32_t smi_qos_queuing_cmap_match_cos (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *cos_list)

  Add a specified CoS values as a match criteria for a type queuing class map.

- s_int32_t smi_qos_queuing_cmap_no_match_cos (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *cos_list)

  Delete a specified CoS values as a match criteria for a type qos queuing map.

- s_int32_t smi_qos_class_map_match_dscp (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *dscp_list, u_int8_t negate)

  Add a specified DSCP values as a match criteria for a type qos class map.

- s_int32_t smi_qos_class_map_no_match_dscp (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *dscp_list, u_int8_t negate)

  Delete a specified DSCP values as a match criteria for a type qos class map.

- s_int32_t smi_qos_class_map_match_ip_rtp (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *port_list, u_int8_t negate)

  Configure a class map to use the Real-Time Protocol (RTP) port as a match criteria for a type qos class map.

- s_int32_t smi_qos_class_map_no_match_ip_rtp (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *port_list, u_int8_t negate)

  Delete a class map to use the Real-Time Protocol (RTP) port as a match criteria for a type qos class map.

- s_int32_t smi_qos_class_map_match_precedence (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *prec_list, u_int8_t negate)

  Configure a class map to use the precedence value in the Type of Service (ToS) byte field of the IP header as a match criteria for a type qos class map.

- s_int32_t smi_qos_class_map_no_match_precedence (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *prec_list, u_int8_t negate)

  Unconfigure a class map to use the precedence value in the Type of Service (ToS) byte field of the IP header as a match criteria for a type qos class map.

- s_int32_t smi_qos_class_map_match_protocol (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *protocol, u_int8_t negate)

  Configure a class map to use a specific protocol as a match criterion for a type qos class map.

- s_int32_t smi_qos_class_map_no_match_protocol (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *protocol, u_int8_t negate)

  Unconfigure a class map to use a specific protocol as a match criterion for a type qos class map.

- s_int32_t smi_qos_queuing_cmap_match_qos_group (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *qg_list, u_int8_t negate)

  Configure a class map to use a specific qos group value as a match criterion for a type queuing class map.

- s_int32_t smi_qos_queuing_cmap_no_match_qos_group (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *qg_list, u_int8_t negate)

  Unconfigure a class map to use a specific qos group value as a match criterion for a type queuing class map.

- s_int32_t smi_qos_configure_police_by_rate (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *pmap_name, u_int32_t cir, char *cir_unit, u_int32_t bc, char *bc_unit, u_int32_t pir, char *pir_unit, u_int32_t be,

char *be_unit, char *confirm, u_int8_t confirm_set, char *exceed, u_int8_t exceed_set, char *violate, u_int8_t violate_set)

Configure policing of the data rates for a particular class of traffic.

- s_int32_t smi_qos_unconfigure_police_by_rate (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *pmap_name, u_int32_t cir, char *cir_unit, u_int32_t bc, char *bc_unit, u_int32_t pir, char *pir_unit, u_int32_t be, char *be_unit, char *confirm, u_int8_t confirm_set, char *exceed, u_int8_t exceed_set, char *violate, u_int8_t violate_set)

  Unconfigure policing of the data rates for a particular class of traffic.

- s_int32_t smi_qos_configure_police_by_percent (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *pmap_name, u_int8_t cir_percent, u_int32_t bc, char *bc_unit, u_int8_t pir_percent, u_int32_t be, char *be_unit, char *confirm, u_int8_t confirm_set, char *exceed, u_int8_t exceed_set, char *violate, u_int8_t violate_set)

  Configure policing of the data rates for a particular class of traffic.

- s_int32_t smi_qos_unconfigure_police_by_percent (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *pmap_name, u_int8_t cir_percent, u_int32_t bc, char *bc_unit, u_int8_t pir_percent, u_int32_t be, char *be_unit, char *confirm, u_int8_t confirm_set, char *exceed, u_int8_t exceed_set, char *violate, u_int8_t violate_set)

  Unconfigure policing of the data rates for a particular class of traffic.

- s_int32_t smi_qos_create_qos_policy_map (struct smiclient_globals *azg, u_int32_t vr_id, char *pmap_name)

  Create or modify a type qos policy map that defines a policy of traffic.

- s_int32_t smi_qos_cmap_no_policy_map (struct smiclient_globals *azg, u_int32_t vr_id, char *pmap_name)

  Delete a type qos policy map that defines a class of traffic.

- s_int32_t smi_qos_create_queuing_policy_map (struct smiclient_globals *azg, u_int32_t vr_id, char *pmap_name)

  Create or modify a type queuing policy map that defines a policy of traffic.

- s_int32_t smi_qos_queuing_cmap_no_policy_map (struct smiclient_globals *azg, u_int32_t vr_id, char *pmap_name)

  Delete a type queuing policy map that defines a class of traffic.

- s_int32_t smi_qos_configure_priority_queuing (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *pmap_name, u_int8_t priority)

  Configure a single output queuing class as the priority queue.

- s_int32_t smi_qos_unconfigure_priority_queuing (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *pmap_name, u_int8_t priority)

Unconfigure a single output queuing class as the priority queue.

- s_int32_t smi_qos_enable_statistics (struct smiclient_globals *azg)

  Enable Quality of Service (QoS) statistics.

- s_int32_t smi_qos_disable_statistics (struct smiclient_globals *azg)

  Disable Quality of Service (QoS) statistics.

- s_int32_t smi_qos_configure_tail_drop_by_value (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *pmap_name, u_int32_t threshold, char *threshold_unit, u_int8_t cos)

  Configure tail drop by setting queue limits on both ingress and egress queues.

- s_int32_t smi_qos_unconfigure_tail_drop_by_value (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *pmap_name, u_int32_t threshold, char *threshold_unit, u_int8_t cos)

  Unconfigure tail drop by setting queue limits on both ingress and egress queues.

- s_int32_t smi_qos_configure_tail_drop_by_percent (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *pmap_name, u_int8_t percent, u_int8_t cos)

  Configure tail drop by setting queue limits on both ingress and egress queues.

- s_int32_t smi_qos_unconfigure_tail_drop_by_percent (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *pmap_name, u_int8_t percent, u_int8_t cos)

  Unconfigure tail drop by setting queue limits on both ingress and egress queues.

- s_int32_t smi_qos_configure_wred_by_value (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *pmap_name, u_int32_t min_threshold, char *min_threshold_unit, u_int32_t max_threshold, char *max_threshold_unit, u_int8_t cos)

  Configure weighted random early detection (WRED) on both ingress and egress queues by setting aggregate minimum and maximum packet drop threshold default values for specific class of service (CoS) values.

- s_int32_t smi_qos_unconfigure_wred_by_value (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *pmap_name, u_int32_t min_threshold, char *min_threshold_unit, u_int32_t max_threshold, char *max_threshold_unit, u_int8_t cos)

  Unconfigure weighted random early detection (WRED) on both ingress and egress queues by setting aggregate minimum and maximum packet drop threshold default values for specific class of service (CoS) values.

- s_int32_t smi_qos_configure_wred_by_percent (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *pmap_name, u_int8_t min_percent, u_int8_t max_percent, u_int8_t cos)

Configure weighted random early detection (WRED) on both ingress and egress queues by setting aggregate minimum and maximum packet drop threshold default values for specific class of service (CoS) values.

- s_int32_t smi_qos_unconfigure_wred_by_percent (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *pmap_name, u_int8_t min_percent, u_int8_t max_percent, u_int8_t cos)

  Unconfigure weighted random early detection (WRED) on both ingress and egress queues by setting aggregate minimum and maximum packet drop threshold default values for specific class of service (CoS) values.

- s_int32_t smi_qos_attach_policy_map (struct smiclient_globals *azg, u_int32_t vr_id, char *type, char *direction, char *pmap_name, char *ifname)

  Attach a policy map to an interface, VLAN, or tunnel.

- s_int32_t smi_qos_dettach_policy_map (struct smiclient_globals *azg, u_int32_t vr_id, char *type, char *direction, char *pmap_name, char *ifname)

  Dettach a policy map to an interface, VLAN, or tunnel.

- s_int32_t smi_qos_pmap_set_cos (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *pmap_name, u_int8_t cos)

  Assign a class of service (CoS) value for a class of traffic in a type qos policy map.

- s_int32_t smi_qos_pmap_no_set_cos (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *pmap_name, u_int8_t cos)

  Remove a class of service (CoS) value for a class of traffic in a type qos policy map.

- s_int32_t smi_qos_pmap_set_dscp (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *pmap_name, char *dscp)

  Assign a Differentiated Services Code Point (DSCP) value for a class of traffic in a type qos policy map.

- s_int32_t smi_qos_pmap_no_set_dscp (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *pmap_name, char *dscp)

  Remove a Differentiated Services Code Point (DSCP) value for a class of traffic in a type qos policy map.

- s_int32_t smi_qos_pmap_set_precedence (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *pmap_name, char *prec)

  Set precedence value in an IP header for a class of traffic in a type qos policy map.

- s_int32_t smi_qos_pmap_no_set_precedence (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *pmap_name, char *prec)

  Unset precedence value in an IP header for a class of traffic in a type qos policy map.

- s_int32_t smi_qos_pmap_set_qos_group (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *pmap_name, u_int8_t qg)

  Assign the QoS group identifier for a class of traffic in a type qos policy map.

- s_int32_t smi_qos_pmap_set_no_qos_group (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *pmap_name, u_int8_t qg)

  Remove the QoS group identifier for a class of traffic in a type qos policy map.

- s_int32_t smi_qos_configure_shaping_by_rate (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *pmap_name, u_int32_t rate, char *rate_unit)

  Configure shaping on an egress queue to impose a maximum rate on it.

- s_int32_t smi_qos_unconfigure_shaping_by_rate (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *pmap_name, u_int32_t rate, char *rate_unit)

  Remove shaping configuration.

- s_int32_t smi_qos_configure_shaping_by_percent (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *pmap_name, u_int8_t percent)

  Configure shaping on an egress queue to impose a maximum rate on it.

- s_int32_t smi_qos_unconfigure_shaping_by_percent (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, char *pmap_name, u_int8_t percent)

  Configure shaping on an egress queue to impose a maximum rate on it.

- s_int32_t smi_qos_show_qos_class_map (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, struct list *qosOutList, u_int32_t(*callbackFunc)(struct list *qosOutList))

  Shows the QoS class map information of given class map name.

- s_int32_t smi_qos_show_qos_class_map_all (struct smiclient_globals *azg, u_int32_t vr_id, int start_index, int end_index, struct list *qosOutList, u_int32_t(*callbackFunc)(struct list *qosOutList))

  Shows the QoS class map information of all class maps.

- s_int32_t smi_qos_show_queuing_class_map (struct smiclient_globals *azg, u_int32_t vr_id, char *cmap_name, struct list *qosOutList, u_int32_t(*callbackFunc)(struct list *qosOutList))

  Shows the Queuing class map information of given class map name.

- s_int32_t smi_qos_show_queuing_class_map_all (struct smiclient_globals *azg, u_int32_t vr_id, int start_index, int end_index, struct list *qosOutList, u_int32_t(*callbackFunc)(struct list *qosOutList))

  Shows the Queuing class map information of all class maps.

- s_int32_t smi_qos_show_class_map_all (struct smiclient_globals *azg, u_int32_t vr_id, int start_index, int end_index, struct list *qosOutList, u_int32_t(*callbackFunc)(struct list *qosOutList))

  Shows both the Queuing and QoS class map information of all class maps.

- s_int32_t smi_qos_show_qos_policy_map (struct smiclient_globals ∗azg, u_int32_t vr_id, char ∗pmap_name, struct list ∗qosOutList, u_int32_t(∗callbackFunc)(struct list ∗qosOutList))

  Shows the QoS policy map information of given policy map name.

- s_int32_t smi_qos_show_qos_policy_map_all (struct smiclient_globals ∗azg, u_int32_t vr_id, int start_index, int end_index, struct list ∗qosOutList, u_int32_t(∗callbackFunc)(struct list ∗qosOutList))

  Shows the QoS policy map information of all policy maps.

- s_int32_t smi_qos_show_queuing_policy_map (struct smiclient_globals ∗azg, u_int32_t vr_id, char ∗pmap_name, struct list ∗qosOutList, u_int32_t(∗callbackFunc)(struct list ∗qosOutList))

  Shows the Queuing policy map information of given policy map name.

- s_int32_t smi_qos_show_queuing_policy_map_all (struct smiclient_globals ∗azg, u_int32_t vr_id, int start_index, int end_index, struct list ∗qosOutList, u_int32_t(∗callbackFunc)(struct list ∗qosOutList))

  Shows the Queuing policy map information of all policy maps.

- s_int32_t smi_qos_show_policy_map_all (struct smiclient_globals ∗azg, u_int32_t vr_id, int start_index, int end_index, struct list ∗qosOutList, u_int32_t(∗callbackFunc)(struct list ∗qosOutList))

  Shows both the Queuing and QoS policy map information of all policy maps.

- s_int32_t smi_qos_show_qos_ingress_pmap_interface (struct smiclient_globals ∗azg, u_int32_t vr_id, char ∗if_name, struct list ∗qosOutList, u_int32_t(∗callbackFunc)(struct list ∗qosOutList))

  Shows the QoS ingress policy map information of given interface.

- s_int32_t smi_qos_show_qos_egress_pmap_interface (struct smiclient_globals ∗azg, u_int32_t vr_id, char ∗if_name, struct list ∗qosOutList, u_int32_t(∗callbackFunc)(struct list ∗qosOutList))

  Shows the QoS egress policy map information of given interface.

- s_int32_t smi_qos_show_queuing_interface (struct smiclient_globals ∗azg, u_int32_t vr_id, char ∗if_name, int start_index, int end_index, struct list ∗qosOutList, u_int32_t(∗callbackFunc)(struct list ∗qosOutList))

  Shows the Queuing interface information of given interface.

- s_int32_t smi_qos_show_pmap_interface_brief (struct smiclient_globals ∗azg, int start_index, int end_index, struct list ∗qosOutList, u_int32_t(∗callbackFunc)(struct list ∗qosOutList))

  Shows brief Policy map interface information of all interfaces.

2.1.1 Detailed Description

Provides API for managing Quality of Service (QoS). The APIs provided in this file forms the basis of ZebOS QoS management. These APIs are used by various north bound management interfaces like CLI, SNMP and SMI

2.1.2 Function Documentation

2.1.2.1 s_int32_t smi_qos_add_ref_to_qos_cmap_in_pmap (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *pmap_name*)

Add a reference to an existing qos class map in a policy map. smi_qos_add_ref_to_-qos_cmap_in_pmap

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***pmap_name*** Policy map name string

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_POLICY_MAP
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_PMAP_ATTACHED_TO_IF
NSM_API_ERR_CMAP_CREATE_FAIL
NSM_API_ERR_INSERT_CMAP_FAIL

2.1.2.2 s_int32_t smi_qos_add_ref_to_qos_default_cmap_in_pmap (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *pmap_name*)

Add a reference to the reserved class name "class-default" that matches all traffic not classified in other classes in a policy map. smi_qos_add_ref_to_qos_default_cmap_-in_pmap

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***pmap_name*** Policy map name string

Returns:

0 on success, otherwise one of the following error codes

NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_POLICY_MAP
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_PMAP_ATTACHED_TO_IF
NSM_API_ERR_CMAP_CREATE_FAIL
NSM_API_ERR_INSERT_CMAP_FAIL

2.1.2.3 s_int32_t smi_qos_add_ref_to_queuing_cmap_in_pmap (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *pmap_name*)

Add a reference to an existing queuing class map in a policy map. smi_qos_add_ref_-to_queuing_cmap_in_pmap

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***pmap_name*** Policy map name string

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_POLICY_MAP
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_PMAP_ATTACHED_TO_IF
NSM_API_ERR_CMAP_CREATE_FAIL
NSM_API_ERR_INSERT_CMAP_FAIL

2.1.2.4 s_int32_t smi_qos_attach_policy_map (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *type*, char * *direction*, char * *pmap_name*, char * *ifname*)

Attach a policy map to an interface, VLAN, or tunnel. smi_qos_attach_policy_map

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***type*** [Optional]Type string{qos|queuing}

← ***direction*** Direction string {input | output}

← ***pmap_name*** Policy map name

← ***ifname*** Interface name

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_POLICY_MAP
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_NO_CMAP_IN_PMAP
NSM_API_ERR_INVALID_RATE_UNIT
NSM_API_ERR_INVALID_RATE

2.1.2.5 s_int32_t smi_qos_class_map_match_access_group (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *acl_name*)

Add a specified access control list (ACL) group as a match criteria for a type qos class map. smi_qos_class_map_match_access_group

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***acl_name*** Name of the ACL

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_ACL_NOT_FOUND
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_MATCH_NUM_EXCEEDS
NSM_API_ERR_ACL_ALREADY_ATTACHED
NSM_API_ERR_SET_MATCH_FAIL

2.1.2.6 s_int32_t smi_qos_class_map_match_cos (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *cos_list*, u_int8_t *negate*)

Add a specified CoS values as a match criteria for a type qos class map. smi_qos_-class_map_match_cos

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***cos_list*** Specified CoS value or list of CoS values. <0-7>

To specify a list of values, use one of the following options: Specify a range of values by separating each value with a dash. Specify a noncontiguous list of values by separating each value by a comma.

← ***negate*** [Optional]Negates the specified match result {0|1}

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_MATCH_NUM_EXCEEDS
NSM_API_ERR_INVALID_INPUT
NSM_API_ERR_SET_MATCH_FAIL

2.1.2.7 s_int32_t smi_qos_class_map_match_dscp (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *dscp_list*, u_int8_t *negate*)

Add a specified DSCP values as a match criteria for a type qos class map. smi_qos_-class_map_match_dscp

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***dscp_list*** Specified DSCP value or list of DSCP values. {af11 | af12 |af13 | af21 | af22 |af23 | af31 | af32 |af33 | af41 | af42 |af43 | cs1 | cs2 | cs3 |cs4 |cs5 |cs6 | cs7 | default | ef | <0-63>} To specify a list of values, use one of the following options: Specify a range of values by separating each value with a dash. Specify a noncontiguous list of values by separating each value by a comma.

← ***negate*** [Optional]Negates the specified match result {0|1}

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_MATCH_NUM_EXCEEDS
NSM_API_ERR_INVALID_INPUT
NSM_API_ERR_SET_MATCH_FAIL

2.1.2.8 s_int32_t smi_qos_class_map_match_ip_rtp (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *port_list*, u_int8_t *negate*)

Configure a class map to use the Real-Time Protocol (RTP) port as a match criteria for a type qos class map. smi_qos_class_map_match_ip_rtp

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***port_list*** Specified port value or list of port values. <2000-65535>
To specify a list of values, use one of the following options: Specify a range of values by separating each value with a dash. Specify a noncontiguous list of values by separating each value by a comma.

← ***negate*** [Optional]Negates the specified match result {0|1}

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_MATCH_NUM_EXCEEDS
NSM_API_ERR_INVALID_INPUT
NSM_API_ERR_SET_MATCH_FAIL

2.1.2.9 s_int32_t smi_qos_class_map_match_precedence (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *prec_list*, u_int8_t *negate*)

Configure a class map to use the precedence value in the Type of Service (ToS) byte field of the IP header as a match criteria for a type qos class map. smi_qos_class_-map_match_precedence

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***prec_list*** Specified precedence value or list of precedence values. {critical | flash |flash-override | immediate | internet |network | priority | routine |<0-7>} To specify a list of values, use one of the following options: Specify a range of values by separating each value with a dash. Specify a noncontiguous list of values by separating each value by a comma.

← ***negate*** [Optional]Negates the specified match result {0|1}

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_MATCH_NUM_EXCEEDS
NSM_API_ERR_INVALID_INPUT
NSM_API_ERR_SET_MATCH_FAIL

2.1.2.10 s_int32_t smi_qos_class_map_match_protocol (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *protocol*, u_int8_t *negate*)

Configure a class map to use a specific protocol as a match criterion for a type qos class map. smi_qos_class_map_match_protocol

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***protocol*** Protocol {arp |bridging |cdp |clns |clns-es |clns-is | dhcp |isis |ldp |netbios} Note: A maximum of eight different protocols can be matched at a time.

← ***negate*** [Optional]Negates the specified match result {0|1}

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_MATCH_NUM_EXCEEDS
NSM_API_ERR_INVALID_INPUT
NSM_API_ERR_SET_MATCH_FAIL

2.1.2.11 s_int32_t smi_qos_class_map_no_match_access_group (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *acl_name*)

Delete a specified access control list (ACL) group as a match criteria from a type qos class map. smi_qos_class_map_no_match_access_group

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***acl_name*** Name of the ACL

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_ACL_NOT_FOUND
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_DEL_MATCH_FAIL

2.1.2.12 s_int32_t smi_qos_class_map_no_match_cos (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *cos_list*, u_int8_t *negate*)

Delete a specified CoS values as a match criteria for a type qos class map. smi_qos_-class_map_no_match_cos

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***cos_list*** Specified CoS value or list of CoS values. <0-7>

To specify a list of values, use one of the following options: Specify a range of values by separating each value with a dash. Specify a noncontiguous list of values by separating each value by a comma.

← ***negate*** [Optional]Negates the specified match result {0|1}

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_MATCH_NUM_EXCEEDS
NSM_API_ERR_INVALID_INPUT
NSM_API_ERR_SET_MATCH_FAIL

2.1.2.13 s_int32_t smi_qos_class_map_no_match_dscp (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *dscp_list*, u_int8_t *negate*)

Delete a specified DSCP values as a match criteria for a type qos class map. smi_qos_-class_map_no_match_dscp

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***cos_list*** Specified DSCP value or list of DSCP values. {af11 | af12 |af13 | af21 | af22 |af23 | af31 | af32 |af33 | af41 | af42 |af43 | cs1 | cs2 | cs3 |cs4 |cs5 |cs6 | cs7 | default | ef | <0-63>} To specify a list of values, use one of the following options: Specify a range of values by separating each value with a dash. Specify a noncontiguous list of values by separating each value by a comma.

← ***negate*** [Optional]Negates the specified match result {0|1}

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_MATCH_NUM_EXCEEDS
NSM_API_ERR_INVALID_INPUT
NSM_API_ERR_SET_MATCH_FAIL

2.1.2.14 s_int32_t smi_qos_class_map_no_match_ip_rtp (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *port_list*, u_int8_t *negate*)

Delete a class map to use the Real-Time Protocol (RTP) port as a match criteria for a type qos class map. smi_qos_class_map_no_match_ip_rtp

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***port_list*** Specified port value or list of port values. <2000-65535>

To specify a list of values, use one of the following options: Specify a range of values by separating each value with a dash. Specify a noncontiguous list of values by separating each value by a comma.

← ***negate*** [Optional]Negates the specified match result {0|1}

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_MATCH_NUM_EXCEEDS
NSM_API_ERR_INVALID_INPUT
NSM_API_ERR_SET_MATCH_FAIL

2.1.2.15 s_int32_t smi_qos_class_map_no_match_precedence (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *prec_list*, u_int8_t *negate*)

Unconfigure a class map to use the precedence value in the Type of Service (ToS) byte field of the IP header as a match criteria for a type qos class map. smi_qos_class_-map_no_match_precedence

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***prec_list*** Specified precedence value or list of precedence values. {critical | flash |flash-override | immediate | internet |network | priority | routine |<0-7>} To specify a list of values, use one of the following options: Specify a range of values by separating each value with a dash. Specify a noncontiguous list of values by separating each value by a comma.

← ***negate*** [Optional]Negates the specified match result {0|1}

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_MATCH_NUM_EXCEEDS
NSM_API_ERR_INVALID_INPUT
NSM_API_ERR_SET_MATCH_FAIL

2.1.2.16 s_int32_t smi_qos_class_map_no_match_protocol (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *protocol*, u_int8_t *negate*)

Unconfigure a class map to use a specific protocol as a match criterion for a type qos class map. smi_qos_class_map_no_match_protocol

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***protocol*** Protocol {arp |bridging |cdp |clns |clns-es |clns-is | dhcp |isis |ldp |netbios} Note: A maximum of eight different protocols can be matched at a time.

← ***negate*** [Optional]Negates the specified match result {0|1}

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_MATCH_NUM_EXCEEDS
NSM_API_ERR_INVALID_INPUT
NSM_API_ERR_SET_MATCH_FAIL

2.1.2.17 s_int32_t smi_qos_clear_statistics_all (struct smiclient_globals * *azg*, u_int32_t *vr_id*)

the Clears the counters for all VLANs and interfaces. smi_qos_clear_statistics_all

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_CMAP_ATTACHED_TO_IF

2.1.2.18 s_int32_t smi_qos_clear_statistics_per_interface (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *ifname*, char * *direction*, char * *qos_type*)

the Clears the counters for the given or all interfaces. smi_qos_clear_statistics_per_-interface

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***@param[in]*** direction [Optional]Direction string {input|ouput}

← ***qos_type*** [Optional] Type {qos|queuing}

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_CMAP_ATTACHED_TO_IF

2.1.2.19 s_int32_t smi_qos_clear_statistics_per_vlan (struct smiclient_globals * *azg*, u_int32_t *vr_id*, u_int16_t *vlan_id*, char * *direction*, char * *qos_type*)

the Clears the counters for the given or all VLANs. smi_qos_clear_statistics_per_vlan

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***vlan_id*** [Optional]vlan_id VLAN Id <1-4093>

← ***direction*** [Optional]Direction string {input|ouput}

← ***qos_type*** [Optional] Type {qos|queuing}

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_CMAP_ATTACHED_TO_IF

2.1.2.20 s_int32_t smi_qos_cmap_no_class_map (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *match_criteria*)

Delete a type qos class map that defines a class of traffic. smi_qos_cmap_no_class_-map

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***match_criteria*** [Optional]Match criteria string [match-any | match-all]

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_RESERVED_CMAP_NAME
NSM_API_ERR_INVALID_MATCH_CRITERIA
NSM_API_ERR_CMAP_ATTACHED_TO_IF
NSM_API_ERR_WRONG_MATCH_CRITERIA

2.1.2.21 s_int32_t smi_qos_cmap_no_policy_map (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *pmap_name*)

Delete a type qos policy map that defines a class of traffic. smi_qos_cmap_no_policy_-map

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***pmap_name*** Policy map name string

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NULL_POLICY_MAP
NSM_API_ERR_NO_POLICY_MAP
NSM_API_ERR_PMAP_ATTACHED_TO_IF
NSM_API_ERR_NOT_QOS_PMAP_TYPE

2.1.2.22 s_int32_t smi_qos_configure_bandwidth_by_percent (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *pmap_name*, u_int8_t *percent*)

Configure a minimum percentage of the interface bandwidth to a queue and configure the bandwidth on both ingress and egress queues. smi_qos_configure_bandwidth_by_-percent

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***pmap_name*** Policy map name string

← ***percent*** Percent <1-100>

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_POLICY_MAP
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_NO_CMAP_IN_PMAP
NSM_API_ERR_INVALID_RATE_PERCENT

2.1.2.23 s_int32_t smi_qos_configure_bandwidth_by_rate (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *pmap_name*, u_int32_t *bw_rate*, char * *rate_unit*)

Configure a minimum rate of the interface bandwidth to a queue and configure the bandwidth on both ingress and egress queues. smi_qos_configure_bandwidth_by_rate

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***pmap_name*** Policy map name string

← ***bw_rate*** Rate <1-1000000000>

← ***rate_unit*** [Optional]Rate unit string [bps | kbps | mbps | gbps]

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_POLICY_MAP
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_NO_CMAP_IN_PMAP
NSM_API_ERR_INVALID_RATE_UNIT
NSM_API_ERR_INVALID_RATE

2.1.2.24 s_int32_t smi_qos_configure_bandwidth_remaining_percent (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *pmap_name*, u_int8_t *percent*)

Configure the percentage of the bandwidth remaining on the interface after other allocations are configured on both ingress and egress queues. smi_qos_configure_bandwidth_remaining_percent

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***pmap_name*** Policy map name string

← ***percent*** Percent <0-100>

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_POLICY_MAP
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_NO_CMAP_IN_PMAP
NSM_API_ERR_INVALID_RATE_PERCENT

2.1.2.25 s_int32_t smi_qos_configure_police_by_percent (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *pmap_name*, u_int8_t *cir_percent*, u_int32_t *bc*, char * *bc_unit*, u_int8_t *pir_percent*, u_int32_t *be*, char * *be_unit*, char * *confirm*, u_int8_t *confirm_set*, char * *exceed*, u_int8_t *exceed_set*, char * *violate*, u_int8_t *violate_set*)

Configure policing of the data rates for a particular class of traffic. smi_qos_configure_police_by_percent

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***pmap_name*** Policy map name string

← ***cir_percent*** Rate <1-100>

← ***bc*** Commited burst size <1-536870912>

← ***bc_unit*** Unit string {bytes|kbytes|mbytes|ms|us}

← ***pir_percent*** Rate <1-100>

← ***be*** Exceeded burst size <1-536870912>

← ***be_unit*** Unit string {bytes|kbytes|mbytes|ms|us}

← ***confirm*** Action to take when the data rate is within bounds
{transmit | set-prec-transmit | set-dscp-transmit | set-cos-transmit }

← ***confirm_set*** Set value corresponding to confirm action
<0-7> for set-prec-transmit, set-cos-transmit
<0-63> for set-dscp-transmit,

← ***exceed*** Action to take when the data rate is exceeded
{drop | set-dscp-transmit | set-cos-transmit }

← ***exceed_set*** Set value corresponding to exceed action
<0-7> for set-cos-transmit
<0-63> for set-dscp-transmit,

← ***violate*** Action to take when the data rate violates the configured rate values
{drop | set-dscp-transmit | set-cos-transmit }

← ***violate_set*** Set value corresponding to violate action
<0-7> for set-cos-transmit
<0-63> for set-dscp-transmit,

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_POLICY_MAP
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_INVALID_CIR_RATE_UNIT
NSM_API_ERR_INVALID_CIR_RATE
NSM_API_ERR_INVALID_BC_UNIT
NSM_API_ERR_INVALID_BC
NSM_API_ERR_INVALID_PIR_RATE_UNIT
NSM_API_ERR_PIR_IS_LT_CIR
NSM_API_ERR_INVALID_PIR_RATE
NSM_API_ERR_INVALID_BE_UNIT
NSM_API_ERR_INVALID_BE
NSM_API_ERR_INVALID_CONFIRM_COS
NSM_QOS_CONF_ACT_POLICED_DSCP_TX

NSM_API_ERR_INVALID_CONFIRM_DSCP
NSM_QOS_CONF_ACT_POLICED_PREC_TX
NSM_API_ERR_INVALID_CONFIRM_IPPREC
NSM_QOS_CONF_ACT_POLICED_QOS_GRP_TX
NSM_API_ERR_INVALID_CONFIRM_QOS
NSM_API_ERR_INVALID_CONFIRM_ACTION
NSM_QOS_EXD_ACT_POLICED_DSCP_TX
NSM_API_ERR_INVALID_EXCEED_DSCP
NSM_QOS_EXD_ACT_POLICED_COS_TX
NSM_API_ERR_INVALID_EXCEED_COS
NSM_QOS_EXD_ACT_DROP
NSM_QOS_VOT_ACT_POLICED_DSCP_TX
NSM_API_ERR_INVALID_VIOLATE_DSCP
NSM_QOS_ERR_VOT_ACT_VIOLATE_COS_TX
NSM_API_ERR_INVALID_VIOLATE_COS
NSM_QOS_EXD_ACT_DROP
NSM_API_ERR_MULTIPLE_SET_ACTIONS
NSM_API_ERR_SHOULD_BE_DROP_ACTION
NSM_API_ERR_NO_CLASS_MAP

2.1.2.26 s_int32_t smi_qos_configure_police_by_rate (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *pmap_name*, u_int32_t *cir*, char * *cir_unit*, u_int32_t *bc*, char * *bc_unit*, u_int32_t *pir*, char * *pir_unit*, u_int32_t *be*, char * *be_unit*, char * *confirm*, u_int8_t *confirm_set*, char * *exceed*, u_int8_t *exceed_set*, char * *violate*, u_int8_t *violate_set*)

Configure policing of the data rates for a particular class of traffic. smi_qos_-configure_police_by_rate

Parameters:

← ***azg*** Pointer to the SMI client global structure
← ***vr_id*** Virtual Router ID <0-255>
← ***cmap_name*** Class map name string
← ***pmap_name*** Policy map name string
← ***cir*** Rate <1-1000000000>
← ***cir_unit*** [Optional]Rate unit string [bps | kbps | mbps | gbps]
← ***bc*** Commited burst size <1-536870912>
← ***bc_unit*** Unit string {bytes|kbytes|mbytes|ms|us}
← ***pir*** Rate <1-1000000000>
← ***pir_unit*** [Optional]Rate unit string [bps | kbps | mbps | gbps]
← ***be*** Exceeded burst size <1-536870912>
← ***be_unit*** Unit string {bytes|kbytes|mbytes|ms|us}
← ***confirm*** Action to take when the data rate is within bounds
{transmit | set-prec-transmit | set-dscp-transmit | set-cos-transmit }

← ***confirm_set*** Set value corresponding to confirm action
<0-7> for set-prec-transmit, set-cos-transmit
<0-63> for set-dscp-transmit,

← ***exceed*** Action to take when the data rate is exceeded
{drop | set-dscp-transmit | set-cos-transmit }

← ***exceed_set*** Set value corresponding to exceed action
<0-7> for set-cos-transmit
<0-63> for set-dscp-transmit,

← ***violate*** Action to take when the data rate violates the configured rate values
{drop | set-dscp-transmit | set-cos-transmit }

← ***violate_set*** Set value corresponding to violate action
<0-7> for set-cos-transmit
<0-63> for set-dscp-transmit,

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_POLICY_MAP
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_INVALID_CIR_RATE_UNIT
NSM_API_ERR_INVALID_CIR_RATE
NSM_API_ERR_INVALID_BC_UNIT
NSM_API_ERR_INVALID_BC
NSM_API_ERR_INVALID_PIR_RATE_UNIT
NSM_API_ERR_PIR_IS_LT_CIR
NSM_API_ERR_INVALID_PIR_RATE
NSM_API_ERR_INVALID_BE_UNIT
NSM_API_ERR_INVALID_BE
NSM_API_ERR_INVALID_CONFIRM_COS
NSM_QOS_CONF_ACT_POLICED_DSCP_TX
NSM_API_ERR_INVALID_CONFIRM_DSCP
NSM_QOS_CONF_ACT_POLICED_PREC_TX
NSM_API_ERR_INVALID_CONFIRM_IPPREC
NSM_QOS_CONF_ACT_POLICED_QOS_GRP_TX
NSM_API_ERR_INVALID_CONFIRM_QOS
NSM_API_ERR_INVALID_CONFIRM_ACTION
NSM_QOS_EXD_ACT_POLICED_DSCP_TX
NSM_API_ERR_INVALID_EXCEED_DSCP
NSM_QOS_EXD_ACT_POLICED_COS_TX
NSM_API_ERR_INVALID_EXCEED_COS
NSM_QOS_EXD_ACT_DROP
NSM_QOS_VOT_ACT_POLICED_DSCP_TX
NSM_API_ERR_INVALID_VIOLATE_DSCP
NSM_QOS_ERR_VOT_ACT_VIOLATE_COS_TX
NSM_API_ERR_INVALID_VIOLATE_COS
NSM_QOS_EXD_ACT_DROP
NSM_API_ERR_MULTIPLE_SET_ACTIONS

NSM_API_ERR_SHOULD_BE_DROP_ACTION
NSM_API_ERR_NO_CLASS_MAP

2.1.2.27 s_int32_t smi_qos_configure_priority_queuing (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *pmap_name*, u_int8_t *priority*)

Configure a single output queuing class as the priority queue. smi_qos_configure_-priority_queuing

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***pmap_name*** Policy map name string

← ***priority*** [Optional]Priority value {1}

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_POLICY_MAP
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_NO_CMAP_IN_PMAP
NSM_API_ERR_CONT_CONFIGURE_MT_ONE
NSM_API_ERR_CONT_CONFIGURE_AS_BW_ENABLED
NSM_API_ERR_CONT_INVALID_PRIORITY

2.1.2.28 s_int32_t smi_qos_configure_shaping_by_percent (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *pmap_name*, u_int8_t *percent*)

Configure shaping on an egress queue to impose a maximum rate on it. smi_qos_-configure_shaping_by_percent

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***pmap_name*** Policy map name string

← ***percent*** Rate <1-100>

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_MATCH_NUM_EXCEEDS
NSM_API_ERR_INVALID_INPUT
NSM_API_ERR_SET_MATCH_FAIL

2.1.2.29 s_int32_t smi_qos_configure_shaping_by_rate (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *pmap_name*, u_int32_t *rate*, char * *rate_unit*)

Configure shaping on an egress queue to impose a maximum rate on it. smi_qos_configure_shaping_by_rate

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***pmap_name*** Policy map name string

← ***rate*** Rate <1-1000000000>

← ***rate_unit*** [Optional]Rate unit string [bps | kbps | mbps | gbps]

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_MATCH_NUM_EXCEEDS
NSM_API_ERR_INVALID_INPUT
NSM_API_ERR_SET_MATCH_FAIL

2.1.2.30 s_int32_t smi_qos_configure_tail_drop_by_percent (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *pmap_name*, u_int8_t *percent*, u_int8_t *cos*)

Configure tail drop by setting queue limits on both ingress and egress queues. smi_qos_configure_tail_drop_by_percent

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***pmap_name*** Policy map name string

← ***percent*** Threshold <1-100>
← ***cos*** CoS value <0-7>

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_POLICY_MAP
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_NO_CMAP_IN_PMAP
NSM_API_ERR_INVALID_RATE_UNIT
NSM_API_ERR_INVALID_RATE

2.1.2.31 s_int32_t smi_qos_configure_tail_drop_by_value (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *pmap_name*, u_int32_t *threshold*, char * *threshold_unit*, u_int8_t *cos*)

Configure tail drop by setting queue limits on both ingress and egress queues. smi_qos_configure_tail_drop_by_value

Parameters:

← ***azg*** Pointer to the SMI client global structure
← ***vr_id*** Virtual Router ID <0-255>
← ***cmap_name*** Class map name string
← ***pmap_name*** Policy map name string
← ***threshold*** Threshold <1-83886080>
← ***threshold_unit*** [Optional]Threshold unit string [packets | bytes | kbytes | mbytes | ms | us]
← ***cos*** CoS value <0-7>

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_POLICY_MAP
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_NO_CMAP_IN_PMAP
NSM_API_ERR_INVALID_RATE_UNIT
NSM_API_ERR_INVALID_RATE

2.1.2.32 s_int32_t smi_qos_configure_wred_by_percent (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *pmap_name*, u_int8_t *min_percent*, u_int8_t *max_percent*, u_int8_t *cos*)

Configure weighted random early detection (WRED) on both ingress and egress queues by setting aggregate minimum and maximum packet drop threshold default values for specific class of service (CoS) values. smi_qos_configure_wred_by_percent

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***pmap_name*** Policy map name string

← ***min_percent*** Threshold <1-100>

← ***max_percent*** Threshold <1-100>

← ***cos*** CoS value <0-7>

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_POLICY_MAP
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_NO_CMAP_IN_PMAP
NSM_API_ERR_INVALID_RATE_UNIT
NSM_API_ERR_INVALID_RATE

2.1.2.33 s_int32_t smi_qos_configure_wred_by_value (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *pmap_name*, u_int32_t *min_threshold*, char * *min_threshold_unit*, u_int32_t *max_threshold*, char * *max_threshold_unit*, u_int8_t *cos*)

Configure weighted random early detection (WRED) on both ingress and egress queues by setting aggregate minimum and maximum packet drop threshold default values for specific class of service (CoS) values. smi_qos_configure_wred_by_value

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***pmap_name*** Policy map name string

← ***min_threshold*** Threshold <1-13631280>

← ***min_threshold_unit*** [Optional]Threshold unit string [packets | bytes | kbytes | mbytes | ms | us]

← ***max_threshold*** Threshold <1-13631280>

← ***max_threshold_unit*** [Optional]Threshold unit string [packets | bytes | kbytes | mbytes | ms | us]

← ***cos*** CoS value <0-7>

Returns:

0 on success, otherwise one of the following error codes

NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_POLICY_MAP
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_NO_CMAP_IN_PMAP
NSM_API_ERR_INVALID_RATE_UNIT
NSM_API_ERR_INVALID_RATE

2.1.2.34 s_int32_t smi_qos_create_qos_class_map (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *match_criteria*)

Create or modify a type qos class map that defines a class of traffic. smi_qos_create_-qos_class_map

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***match_criteria*** [Optional]Match criteria string [match-any | match-all]

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NULL_CLASS_MAP
NSM_API_ERR_RESERVED_CMAP_NAME
NSM_API_ERR_INVALID_MATCH_CRITERIA
NSM_API_ERR_CMAP_CREATE_FAIL
NSM_API_ERR_CMAP_ATTACHED_TO_IF

2.1.2.35 s_int32_t smi_qos_create_qos_policy_map (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *pmap_name*)

Create or modify a type qos policy map that defines a policy of traffic. smi_qos_-create_qos_policy_map

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***pmap_name*** Policy map name string

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NULL_CLASS_MAP

NSM_API_ERR_RESERVED_CMAP_NAME
NSM_API_ERR_INVALID_MATCH_CRITERIA
NSM_API_ERR_CMAP_CREATE_FAIL
NSM_API_ERR_CMAP_ATTACHED_TO_IF

2.1.2.36 s_int32_t smi_qos_create_queuing_policy_map (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *pmap_name*)

Create or modify a type queuing policy map that defines a policy of traffic. smi_qos_-create_queuing_policy_map

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***pmap_name*** Policy map name string

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NULL_CLASS_MAP
NSM_API_ERR_RESERVED_CMAP_NAME
NSM_API_ERR_INVALID_MATCH_CRITERIA
NSM_API_ERR_CMAP_CREATE_FAIL
NSM_API_ERR_CMAP_ATTACHED_TO_IF

2.1.2.37 s_int32_t smi_qos_delete_ref_to_qos_cmap_in_pmap (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *pmap_name*)

Delete a reference to an existing qos class map in a policy map. smi_qos_delete_ref_-to_qos_cmap_in_pmap

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***pmap_name*** Policy map name string

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_POLICY_MAP
NSM_API_ERR_NO_CLASS_MAP

NSM_API_ERR_PMAP_ATTACHED_TO_IF
NSM_API_ERR_REMOVE_CMAP_FAIL
NSM_API_ERR_CMAP_NOT_ATTACHED
NSM_API_ERR_CMAP_TREE_DEL_FAIL

2.1.2.38 s_int32_t smi_qos_delete_ref_to_qos_default_cmap_in_pmap (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *pmap_name*)

Delete a reference to the reserved class name "class-default" that matches all traffic not classified in other classes in a policy map. smi_qos_delete_ref_to_qos_default_-cmap_in_pmap

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***pmap_name*** Policy map name string

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_POLICY_MAP
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_PMAP_ATTACHED_TO_IF
NSM_API_ERR_REMOVE_CMAP_FAIL
NSM_API_ERR_CMAP_NOT_ATTACHED
NSM_API_ERR_CMAP_TREE_DEL_FAIL

2.1.2.39 s_int32_t smi_qos_delete_ref_to_queuing_cmap_in_pmap (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *pmap_name*)

Delete a reference to an existing queuing class map in a policy map. smi_qos_delete_-ref_to_queuing_cmap_in_pmap

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***pmap_name*** Policy map name string

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER

NSM_API_ERR_NO_POLICY_MAP
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_PMAP_ATTACHED_TO_IF
NSM_API_ERR_REMOVE_CMAP_FAIL
NSM_API_ERR_CMAP_NOT_ATTACHED
NSM_API_ERR_CMAP_TREE_DEL_FAIL

2.1.2.40 s_int32_t smi_qos_dettach_policy_map (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *type*, char * *direction*, char * *pmap_name*, char * *ifname*)

Dettach a policy map to an interface, VLAN, or tunnel. smi_qos_dettach_policy_map

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***type*** [Optional]Type string{qos|queuing}

← ***direction*** Direction string {input | output}

← ***pmap_name*** Policy map name

← ***ifname*** Interface name

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_POLICY_MAP
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_NO_CMAP_IN_PMAP
NSM_API_ERR_INVALID_RATE_UNIT
NSM_API_ERR_INVALID_RATE

2.1.2.41 s_int32_t smi_qos_disable_statistics (struct smiclient_globals * *azg*)

Disable Quality of Service (QoS) statistics. smi_qos_disable_statistics

Parameters:

← ***azg*** Pointer to the SMI client global structure

Returns:

0 on success, otherwise one of the following error codes
NSM_QOS_ERR_HAL

2.1.2.42 s_int32_t smi_qos_enable_statistics (struct smiclient_globals * *azg*)

Enable Quality of Service (QoS) statistics. smi_qos_enable_statistics

Parameters:

← ***azg*** Pointer to the SMI client global structure

Returns:

0 on success, otherwise one of the following error codes
NSM_QOS_ERR_HAL

2.1.2.43 s_int32_t smi_qos_modify_queuing_class_map (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*)

Modify a type queuing class map that defines a class of traffic. smi_qos_modify_-queuing_class_map

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** System defined class map name string

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_CMAP_ATTACHED_TO_IF

2.1.2.44 s_int32_t smi_qos_pmap_no_set_cos (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *pmap_name*, u_int8_t *cos*)

Remove a class of service (CoS) value for a class of traffic in a type qos policy map. smi_qos_pmap_no_set_cos

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***pmap_name*** Policy map name string

← ***cos*** CoS value to assign for this class of traffic <0-7>

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_MATCH_NUM_EXCEEDS
NSM_API_ERR_INVALID_INPUT
NSM_API_ERR_SET_MATCH_FAIL

2.1.2.45 s_int32_t smi_qos_pmap_no_set_dscp (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *pmap_name*, char * *dscp*)

Remove a Differentiated Services Code Point (DSCP) value for a class of traffic in a type qos policy map. smi_qos_pmap_no_set_dscp

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***pmap_name*** Policy map name string

← ***dscp*** DSCP string to assign for this class of traffic {af11 | af12 |af13 | af21 | af22 |af23 | af31 | af32 |af33 | af41 | af42 |af43 | cs1 | cs2 | cs3 |cs4 |cs5 |cs6 | cs7 | default | ef | <0-63>}

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_MATCH_NUM_EXCEEDS
NSM_API_ERR_INVALID_INPUT
NSM_API_ERR_SET_MATCH_FAIL

2.1.2.46 s_int32_t smi_qos_pmap_no_set_precedence (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *pmap_name*, char * *prec*)

Unset precedence value in an IP header for a class of traffic in a type qos policy map. smi_qos_pmap_no_set_precedence

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***pmap_name*** Policy map name string

← ***prec*** Specified precedence value or list of precedence values. {critical | flash |flash-override | immediate | internet |network | priority | routine |<0-7>}

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_MATCH_NUM_EXCEEDS
NSM_API_ERR_INVALID_INPUT
NSM_API_ERR_SET_MATCH_FAIL

2.1.2.47 s_int32_t smi_qos_pmap_set_cos (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *pmap_name*, u_int8_t *cos*)

Assign a class of service (CoS) value for a class of traffic in a type qos policy map. smi_qos_pmap_set_cos

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***pmap_name*** Policy map name string

← ***cos*** CoS value to assign for this class of traffic <0-7>

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_MATCH_NUM_EXCEEDS
NSM_API_ERR_INVALID_INPUT
NSM_API_ERR_SET_MATCH_FAIL

2.1.2.48 s_int32_t smi_qos_pmap_set_dscp (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *pmap_name*, char * *dscp*)

Assign a Differentiated Services Code Point (DSCP) value for a class of traffic in a type qos policy map. smi_qos_pmap_set_dscp

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***pmap_name*** Policy map name string

← ***dscp*** DSCP string to assign for this class of traffic {af11 | af12 |af13 | af21 | af22 |af23 | af31 | af32 |af33 | af41 | af42 |af43 | cs1 | cs2 | cs3 |cs4 |cs5 |cs6 | cs7 | default | ef | <0-63>}

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_MATCH_NUM_EXCEEDS
NSM_API_ERR_INVALID_INPUT
NSM_API_ERR_SET_MATCH_FAIL

2.1.2.49 s_int32_t smi_qos_pmap_set_no_qos_group (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *pmap_name*, u_int8_t *qg*)

Remove the QoS group identifier for a class of traffic in a type qos policy map. smi_-qos_pmap_set_no_qos_group

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***pmap_name*** Policy map name string

← ***qg*** QoS group <0-7>

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_MATCH_NUM_EXCEEDS
NSM_API_ERR_INVALID_INPUT
NSM_API_ERR_SET_MATCH_FAIL

2.1.2.50 s_int32_t smi_qos_pmap_set_precedence (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *pmap_name*, char * *prec*)

Set precedence value in an IP header for a class of traffic in a type qos policy map. smi_qos_pmap_set_precedence

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***pmap_name*** Policy map name string

← ***prec*** Specified precedence value or list of precedence values. {critical | flash |flash-override | immediate | internet |network | priority | routine |<0-7>}

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_MATCH_NUM_EXCEEDS
NSM_API_ERR_INVALID_INPUT
NSM_API_ERR_SET_MATCH_FAIL

2.1.2.51 s_int32_t smi_qos_pmap_set_qos_group (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *pmap_name*, u_int8_t *qg*)

Assign the QoS group identifier for a class of traffic in a type qos policy map. smi_-qos_pmap_set_qos_group

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***pmap_name*** Policy map name string

← ***qg*** QoS group <0-7>

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_MATCH_NUM_EXCEEDS
NSM_API_ERR_INVALID_INPUT
NSM_API_ERR_SET_MATCH_FAIL

2.1.2.52 s_int32_t smi_qos_queuing_cmap_match_cos (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *cos_list*)

Add a specified CoS values as a match criteria for a type queuing class map. smi_qos_-queuing_cmap_match_cos

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***cos_list*** Specified CoS value or list of CoS values. <0-7>

To specify a list of values, use one of the following options: Specify a range of values by separating each value with a dash. Specify a noncontiguous list of values by separating each value by a comma.

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_MATCH_NUM_EXCEEDS
NSM_API_ERR_INVALID_INPUT
NSM_API_ERR_SET_MATCH_FAIL

2.1.2.53 s_int32_t smi_qos_queuing_cmap_match_qos_group (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *qg_list*, u_int8_t *negate*)

Configure a class map to use a specific qos group value as a match criterion for a type queuing class map. smi_qos_queuing_cmap_match_qos_group

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***qg_list*** Specific QoS group value or list of values <0-7>

To specify a list of values, use one of the following options: Specify a range of values by separating each value with a dash. Specify a noncontiguous list of values by separating each value by a comma. Note: A maximum of eight different protocols can be matched at a time.

← ***negate*** [Optional]Negates the specified match result {0|1}

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_MATCH_NUM_EXCEEDS
NSM_API_ERR_INVALID_INPUT
NSM_API_ERR_SET_MATCH_FAIL

2.1.2.54 s_int32_t smi_qos_queuing_cmap_no_match_cos (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *cos_list*)

Delete a specified CoS values as a match criteria for a type qos queuing map. smi_-qos_queuing_cmap_no_match_cos

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***cos_list*** Specified CoS value or list of CoS values. <0-7>

To specify a list of values, use one of the following options: Specify a range of values by separating each value with a dash. Specify a noncontiguous list of values by separating each value by a comma.

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_MATCH_NUM_EXCEEDS
NSM_API_ERR_INVALID_INPUT
NSM_API_ERR_SET_MATCH_FAIL

2.1.2.55 s_int32_t smi_qos_queuing_cmap_no_match_qos_group (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *qg_list*, u_int8_t *negate*)

Unconfigure a class map to use a specific qos group value as a match criterion for a type queuing class map. smi_qos_queuing_cmap_no_match_qos_group

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***qg_list*** Specific QoS group value or list of values <0-7>

To specify a list of values, use one of the following options: Specify a range of values by separating each value with a dash. Specify a noncontiguous list of values by separating each value by a comma. Note: A maximum of eight different protocols can be matched at a time.

← ***negate*** [Optional]Negates the specified match result {0|1}

Returns:

0 on success, otherwise one of the following error codes

NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_MATCH_NUM_EXCEEDS
NSM_API_ERR_INVALID_INPUT
NSM_API_ERR_SET_MATCH_FAIL

2.1.2.56 s_int32_t smi_qos_queuing_cmap_no_policy_map (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *pmap_name*)

Delete a type queuing policy map that defines a class of traffic. smi_qos_queuing_-cmap_no_policy_map

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***pmap_name*** Policy map name string

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NULL_POLICY_MAP
NSM_API_ERR_NO_POLICY_MAP
NSM_API_ERR_PMAP_ATTACHED_TO_IF
NSM_API_ERR_NOT_QOS_PMAP_TYPE

2.1.2.57 s_int32_t smi_qos_show_class_map_all (struct smiclient_globals * *azg*, u_int32_t *vr_id*, int *start_index*, int *end_index*, struct list * *qosOutList*, u_int32_t(*)(struct list *qosOutList) *callbackFunc*)

Shows both the Queuing and QoS class map information of all class maps. smi_qos_-show_class_map_all

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vrId*** Virtual router ID <0-255>

← ***start_index*** Start index

← ***end_index*** End index

→ ***qosOutList*** Pointer to linked list of structure qosCmapEntry

← ***callbackFunc*** Callback func pointer

Returns:

0 on success, otherwise one of the following error codes
RESULT_ERROR

2.1.2.58 s_int32_t smi_qos_show_pmap_interface_brief (struct smiclient_globals * *azg*, int *start_index*, int *end_index*, struct list * *qosOutList*, u_int32_t(*)(struct list *qosOutList) *callbackFunc*)

Shows brief Policy map interface information of all interfaces. smi_qos_show_pmap_-interface_brief

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***start_index*** Start index

← ***end_index*** End index

→ ***qosOutList*** Pointer to linked list of structure qosPmapIfBriefEntry

← ***callbackFunc*** Callback func pointer

Returns:

0 on success, otherwise one of the following error codes
RESULT_ERROR

2.1.2.59 s_int32_t smi_qos_show_policy_map_all (struct smiclient_globals * *azg*, u_int32_t *vr_id*, int *start_index*, int *end_index*, struct list * *qosOutList*, u_int32_t(*)(struct list *qosOutList) *callbackFunc*)

Shows both the Queuing and QoS policy map information of all policy maps. smi_-qos_show_policy_map_all

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vrId*** Virtual router ID <0-255>

← ***start_index*** Start index

← ***end_index*** End index

→ ***qosOutList*** Pointer to linked list of structure qosPmapInfo

← ***callbackFunc*** Callback func pointer

Returns:

0 on success, otherwise one of the following error codes
RESULT_ERROR

2.1.2.60 s_int32_t smi_qos_show_qos_class_map (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, struct list * *qosOutList*, u_int32_t(*)(struct list *qosOutList) *callbackFunc*)

Shows the QoS class map information of given class map name. smi_qos_show_qos_-class_map

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vrId*** Virtual router ID <0-255>

← ***cmapName*** User defined class map name

→ ***qosOutList*** Pointer to linked list of structure qosCmapEntry

← ***callbackFunc*** Callback func pointer

Returns:

0 on success, otherwise one of the following error codes
RESULT_ERROR

2.1.2.61 s_int32_t smi_qos_show_qos_class_map_all (struct smiclient_globals * *azg*, u_int32_t *vr_id*, int *start_index*, int *end_index*, struct list * *qosOutList*, u_int32_t(*)(struct list *qosOutList) *callbackFunc*)

Shows the QoS class map information of all class maps. smi_qos_show_qos_class_-map_all

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vrId*** Virtual router ID <0-255>

← ***start_index*** Start index

← ***end_index*** End index

→ ***qosOutList*** Pointer to linked list of structure qosCmapEntry

← ***callbackFunc*** Callback func pointer

Returns:

0 on success, otherwise one of the following error codes
RESULT_ERROR

2.1.2.62 s_int32_t smi_qos_show_qos_egress_pmap_interface (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *if_name*, struct list * *qosOutList*, u_int32_t(*)(struct list *qosOutList) *callbackFunc*)

Shows the QoS egress policy map information of given interface. smi_qos_show_-queuing_egress_pmap_interface

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vrId*** Virtual router ID <0-255>

← ***ifName*** Interface name

← ***start_index*** Start index

← ***end_index*** End index

→ ***qosOutList*** Pointer to linked list of structure qosPmapIfInfo

← ***callbackFunc*** Callback func pointer

Returns:

0 on success, otherwise one of the following error codes
RESULT_ERROR

2.1.2.63 s_int32_t smi_qos_show_qos_ingress_pmap_interface (struct smiclient_globals ∗ *azg*, u_int32_t *vr_id*, char ∗ *if_name*, struct list ∗ *qosOutList*, u_int32_t(∗)(struct list ∗qosOutList) *callbackFunc*)

Shows the QoS ingress policy map information of given interface. smi_qos_show_-qos_ingress_pmap_interface

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vrId*** Virtual router ID <0-255>

← ***ifName*** Interface name

← ***start_index*** Start index

← ***end_index*** End index

→ ***qosOutList*** Pointer to linked list of structure qosPmapIfInfo

← ***callbackFunc*** Callback func pointer

Returns:

0 on success, otherwise one of the following error codes
RESULT_ERROR

2.1.2.64 s_int32_t smi_qos_show_qos_policy_map (struct smiclient_globals ∗ *azg*, u_int32_t *vr_id*, char ∗ *pmap_name*, struct list ∗ *qosOutList*, u_int32_t(∗)(struct list ∗qosOutList) *callbackFunc*)

Shows the QoS policy map information of given policy map name. smi_qos_show_-qos_policy_map

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vrId*** Virtual router ID <0-255>

← ***pmapName*** User defined class map name

→ ***qosOutList*** Pointer to linked list of structure qosPmapInfo

← ***callbackFunc*** Callback func pointer

Returns:

0 on success, otherwise one of the following error codes
RESULT_ERROR

2.1.2.65 s_int32_t smi_qos_show_qos_policy_map_all (struct smiclient_globals * *azg*, u_int32_t *vr_id*, int *start_index*, int *end_index*, struct list * *qosOutList*, u_int32_t(*)(struct list *qosOutList) *callbackFunc*)

Shows the QoS policy map information of all policy maps. smi_qos_show_qos_-policy_map_all

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vrId*** Virtual router ID <0-255>

← ***start_index*** Start index

← ***end_index*** End index

→ ***qosOutList*** Pointer to linked list of structure qosPmapInfo

← ***callbackFunc*** Callback func pointer

Returns:

0 on success, otherwise one of the following error codes
RESULT_ERROR

2.1.2.66 s_int32_t smi_qos_show_queuing_class_map (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, struct list * *qosOutList*, u_int32_t(*)(struct list *qosOutList) *callbackFunc*)

Shows the Queuing class map information of given class map name. smi_qos_show_-queuing_class_map

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vrId*** Virtual router ID <0-255>

← ***cmapName*** System defined class map name

→ ***qosOutList*** Pointer to linked list of structure qosCmapEntry

← ***callbackFunc*** Callback func pointer

Returns:

0 on success, otherwise one of the following error codes
RESULT_ERROR

2.1.2.67 s_int32_t smi_qos_show_queuing_class_map_all (struct smiclient_globals * *azg*, u_int32_t *vr_id*, int *start_index*, int *end_index*, struct list * *qosOutList*, u_int32_t(*)(struct list *qosOutList) *callbackFunc*)

Shows the Queuing class map information of all class maps. smi_qos_show_queuing_-class_map_all

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vrId*** Virtual router ID <0-255>

← ***start_index*** Start index

← ***end_index*** End index

→ ***qosOutList*** Pointer to linked list of structure qosCmapEntry

← ***callbackFunc*** Callback func pointer

Returns:

0 on success, otherwise one of the following error codes
RESULT_ERROR

2.1.2.68 s_int32_t smi_qos_show_queuing_interface (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *if_name*, int *start_index*, int *end_index*, struct list * *qosOutList*, u_int32_t(*)(struct list *qosOutList) *callbackFunc*)

Shows the Queuing interface information of given interface. smi_qos_show_queuing_-interface

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vrId*** Virtual router ID <0-255>

← ***ifName*** Interface name

← ***start_index*** Start index

← ***end_index*** End index

→ ***qosOutList*** Pointer to linked list of structure qosQueuingInfo

← ***callbackFunc*** Callback func pointer

Returns:

0 on success, otherwise one of the following error codes
RESULT_ERROR

2.1.2.69 s_int32_t smi_qos_show_queuing_policy_map (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *pmap_name*, struct list * *qosOutList*, u_int32_t(*)(struct list *qosOutList) *callbackFunc*)

Shows the Queuing policy map information of given policy map name. smi_qos_-show_queuing_policy_map

Parameters:

← ***azg*** Pointer to the SMI client global structure
← ***vrId*** Virtual router ID <0-255>
← ***pmapName*** System defined policy map name
→ ***qosOutList*** Pointer to linked list of structure qosPmapInfo
← ***callbackFunc*** Callback func pointer

Returns:

0 on success, otherwise one of the following error codes
RESULT_ERROR

2.1.2.70 s_int32_t smi_qos_show_queuing_policy_map_all (struct smiclient_globals * *azg*, u_int32_t *vr_id*, int *start_index*, int *end_index*, struct list * *qosOutList*, u_int32_t(*)(struct list *qosOutList) *callbackFunc*)

Shows the Queuing policy map information of all policy maps. smi_qos_show_-queuing_policy_map_all

Parameters:

← ***azg*** Pointer to the SMI client global structure
← ***vrId*** Virtual router ID <0-255>
← ***start_index*** Start index
← ***end_index*** End index
→ ***qosOutList*** Pointer to linked list of structure qosPmapInfo
← ***callbackFunc*** Callback func pointer

Returns:

0 on success, otherwise one of the following error codes
RESULT_ERROR

2.1.2.71 s_int32_t smi_qos_unconfigure_bandwidth_by_percent (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *pmap_name*, u_int8_t *percent*)

Unconfigure a minimum percentage of the interface bandwidth to a queue and configure the bandwidth on both ingress and egress queues. smi_qos_unconfigure_-bandwidth_by_percent

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***pmap_name*** Policy map name string

← ***percent*** Percent <1-100>

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_POLICY_MAP
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_NO_CMAP_IN_PMAP
NSM_API_ERR_INVALID_RATE_PERCENT

2.1.2.72 s_int32_t smi_qos_unconfigure_bandwidth_by_rate (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *pmap_name*, u_int32_t *bw_rate*, char * *rate_unit*)

Unconfigure a minimum rate of the interface bandwidth to a queue and configure the bandwidth on both ingress and egress queues. smi_qos_unconfigure_bandwidth_by_-rate

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***pmap_name*** Policy map name string

← ***rate*** Rate <1-1000000000>

← ***rate_unit*** [Optional]Rate unit string [bps | kbps | mbps | gbps]

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_POLICY_MAP
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_NO_CMAP_IN_PMAP
NSM_API_ERR_INVALID_RATE_UNIT
NSM_API_ERR_INVALID_RATE

2.1.2.73 s_int32_t smi_qos_unconfigure_bandwidth_remaining_percent (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *pmap_name*, u_int8_t *percent*)

Unconfigure the percentage of the bandwidth remaining on the interface after other allocations are configured on both ingress and egress queues. smi_qos_unconfigure_-bandwidth_remaining_percent

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***pmap_name*** Policy map name string

← ***percent*** Percent <0-100>

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_POLICY_MAP
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_NO_CMAP_IN_PMAP
NSM_API_ERR_INVALID_RATE_PERCENT

2.1.2.74 s_int32_t smi_qos_unconfigure_police_by_percent (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *pmap_name*, u_int8_t *cir_percent*, u_int32_t *bc*, char * *bc_unit*, u_int8_t *pir_percent*, u_int32_t *be*, char * *be_unit*, char * *confirm*, u_int8_t *confirm_set*, char * *exceed*, u_int8_t *exceed_set*, char * *violate*, u_int8_t *violate_set*)

Unconfigure policing of the data rates for a particular class of traffic. smi_qos_-unconfigure_police_by_percent

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***pmap_name*** Policy map name string

← ***cir_percent*** Rate <1-100>

← ***bc*** Commited burst size <1-536870912>

← ***bc_unit*** Unit string {bytes|kbytes|mbytes|ms|us}

← ***pir_percent*** Rate <1-100>

← ***be*** Exceeded burst size <1-536870912>

← ***be_unit*** Unit string {bytes|kbytes|mbytes|ms|us}

← ***confirm*** Action to take when the data rate is within bounds
{transmit | set-prec-transmit | set-dscp-transmit | set-cos-transmit }

← ***confirm_set*** Set value corresponding to confirm action
<0-7> for set-prec-transmit, set-cos-transmit
<0-63> for set-dscp-transmit,

← ***exceed*** Action to take when the data rate is exceeded
{drop | set-dscp-transmit | set-cos-transmit }

← ***exceed_set*** Set value corresponding to exceed action
<0-7> for set-cos-transmit
<0-63> for set-dscp-transmit,

← ***violate*** Action to take when the data rate violates the configured rate values
{drop | set-dscp-transmit | set-cos-transmit }

← ***violate_set*** Set value corresponding to violate action
<0-7> for set-cos-transmit
<0-63> for set-dscp-transmit,

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_POLICY_MAP
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_INVALID_CIR_RATE_UNIT
NSM_API_ERR_INVALID_CIR_RATE
NSM_API_ERR_INVALID_BC_UNIT
NSM_API_ERR_INVALID_BC
NSM_API_ERR_INVALID_PIR_RATE_UNIT
NSM_API_ERR_PIR_IS_LT_CIR
NSM_API_ERR_INVALID_PIR_RATE
NSM_API_ERR_INVALID_BE_UNIT
NSM_API_ERR_INVALID_BE
NSM_API_ERR_INVALID_CONFIRM_COS
NSM_QOS_CONF_ACT_POLICED_DSCP_TX
NSM_API_ERR_INVALID_CONFIRM_DSCP
NSM_QOS_CONF_ACT_POLICED_PREC_TX
NSM_API_ERR_INVALID_CONFIRM_IPPREC
NSM_QOS_CONF_ACT_POLICED_QOS_GRP_TX
NSM_API_ERR_INVALID_CONFIRM_QOS
NSM_API_ERR_INVALID_CONFIRM_ACTION
NSM_QOS_EXD_ACT_POLICED_DSCP_TX
NSM_API_ERR_INVALID_EXCEED_DSCP
NSM_QOS_EXD_ACT_POLICED_COS_TX
NSM_API_ERR_INVALID_EXCEED_COS
NSM_QOS_EXD_ACT_DROP
NSM_QOS_VOT_ACT_POLICED_DSCP_TX
NSM_API_ERR_INVALID_VIOLATE_DSCP

NSM_QOS_ERR_VOT_ACT_VIOLATE_COS_TX
NSM_API_ERR_INVALID_VIOLATE_COS
NSM_QOS_EXD_ACT_DROP
NSM_API_ERR_MULTIPLE_SET_ACTIONS
NSM_API_ERR_SHOULD_BE_DROP_ACTION
NSM_API_ERR_NO_CLASS_MAP

2.1.2.75 s_int32_t smi_qos_unconfigure_police_by_rate (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *pmap_name*, u_int32_t *cir*, char * *cir_unit*, u_int32_t *bc*, char * *bc_unit*, u_int32_t *pir*, char * *pir_unit*, u_int32_t *be*, char * *be_unit*, char * *confirm*, u_int8_t *confirm_set*, char * *exceed*, u_int8_t *exceed_set*, char * *violate*, u_int8_t *violate_set*)

Unconfigure policing of the data rates for a particular class of traffic. smi_qos_-unconfigure_police_by_rate

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***pmap_name*** Policy map name string

← ***cir*** Rate <1-1000000000>

← ***cir_unit*** [Optional]Rate unit string [bps | kbps | mbps | gbps]

← ***bc*** Commited burst size <1-536870912>

← ***bc_unit*** Unit string {bytes|kbytes|mbytes|ms|us}

← ***pir*** Rate <1-1000000000>

← ***pir_unit*** [Optional]Rate unit string [bps | kbps | mbps | gbps]

← ***be*** Exceeded burst size <1-536870912>

← ***be_unit*** Unit string {bytes|kbytes|mbytes|ms|us}

← ***confirm*** Action to take when the data rate is within bounds
{transmit | set-prec-transmit | set-dscp-transmit | set-cos-transmit }

← ***confirm_set*** Set value corresponding to confirm action
<0-7> for set-prec-transmit, set-cos-transmit
<0-63> for set-dscp-transmit,

← ***exceed*** Action to take when the data rate is exceeded
{drop | set-dscp-transmit | set-cos-transmit }

← ***exceed_set*** Set value corresponding to exceed action
<0-7> for set-cos-transmit
<0-63> for set-dscp-transmit,

← ***violate*** Action to take when the data rate violates the configured rate values
{drop | set-dscp-transmit | set-cos-transmit }

← ***violate_set*** Set value corresponding to violate action
<0-7> for set-cos-transmit
<0-63> for set-dscp-transmit,

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_POLICY_MAP
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_INVALID_CIR_RATE_UNIT
NSM_API_ERR_INVALID_CIR_RATE
NSM_API_ERR_INVALID_BC_UNIT
NSM_API_ERR_INVALID_BC
NSM_API_ERR_INVALID_PIR_RATE_UNIT
NSM_API_ERR_PIR_IS_LT_CIR
NSM_API_ERR_INVALID_PIR_RATE
NSM_API_ERR_INVALID_BE_UNIT
NSM_API_ERR_INVALID_BE
NSM_API_ERR_INVALID_CONFIRM_COS
NSM_QOS_CONF_ACT_POLICED_DSCP_TX
NSM_API_ERR_INVALID_CONFIRM_DSCP
NSM_QOS_CONF_ACT_POLICED_PREC_TX
NSM_API_ERR_INVALID_CONFIRM_IPPREC
NSM_QOS_CONF_ACT_POLICED_QOS_GRP_TX
NSM_API_ERR_INVALID_CONFIRM_QOS
NSM_API_ERR_INVALID_CONFIRM_ACTION
NSM_QOS_EXD_ACT_POLICED_DSCP_TX
NSM_API_ERR_INVALID_EXCEED_DSCP
NSM_QOS_EXD_ACT_POLICED_COS_TX
NSM_API_ERR_INVALID_EXCEED_COS
NSM_QOS_EXD_ACT_DROP
NSM_QOS_VOT_ACT_POLICED_DSCP_TX
NSM_API_ERR_INVALID_VIOLATE_DSCP
NSM_QOS_ERR_VOT_ACT_VIOLATE_COS_TX
NSM_API_ERR_INVALID_VIOLATE_COS
NSM_QOS_EXD_ACT_DROP
NSM_API_ERR_MULTIPLE_SET_ACTIONS
NSM_API_ERR_SHOULD_BE_DROP_ACTION
NSM_API_ERR_NO_CLASS_MAP

2.1.2.76 s_int32_t smi_qos_unconfigure_priority_queuing (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *pmap_name*, u_int8_t *priority*)

Unconfigure a single output queuing class as the priority queue. smi_qos_-unconfigure_priority_queuing

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***pmap_name*** Policy map name string

← ***priority*** [Optional]Priority value {1}

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_POLICY_MAP
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_NO_CMAP_IN_PMAP
NSM_API_ERR_CONT_CONFIGURE_MT_ONE
NSM_API_ERR_CONT_CONFIGURE_AS_BW_ENABLED
NSM_API_ERR_CONT_INVALID_PRIORITY

2.1.2.77 s_int32_t smi_qos_unconfigure_shaping_by_percent (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *pmap_name*, u_int8_t *percent*)

Configure shaping on an egress queue to impose a maximum rate on it. smi_qos_-unconfigure_shaping_by_percent

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***pmap_name*** Policy map name string

← ***percent*** Rate <1-100>

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_MATCH_NUM_EXCEEDS
NSM_API_ERR_INVALID_INPUT
NSM_API_ERR_SET_MATCH_FAIL

2.1.2.78 s_int32_t smi_qos_unconfigure_shaping_by_rate (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *pmap_name*, u_int32_t *rate*, char * *rate_unit*)

Remove shaping configuration. smi_qos_unconfigure_shaping_by_rate

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***pmap_name*** Policy map name string

← ***rate*** Rate <1-1000000000>

← ***rate_unit*** [Optional]Rate unit string [bps | kbps | mbps | gbps]

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_MATCH_NUM_EXCEEDS
NSM_API_ERR_INVALID_INPUT
NSM_API_ERR_SET_MATCH_FAIL

2.1.2.79 s_int32_t smi_qos_unconfigure_tail_drop_by_percent (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *pmap_name*, u_int8_t *percent*, u_int8_t *cos*)

Unconfigure tail drop by setting queue limits on both ingress and egress queues. smi_-qos_unconfigure_tail_drop_by_percent

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***pmap_name*** Policy map name string

← ***percent*** Threshold <1-100>

← ***cos*** CoS value <0-7>

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_POLICY_MAP
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_NO_CMAP_IN_PMAP
NSM_API_ERR_INVALID_RATE_UNIT
NSM_API_ERR_INVALID_RATE

2.1.2.80 s_int32_t smi_qos_unconfigure_tail_drop_by_value (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *pmap_name*, u_int32_t *threshold*, char * *threshold_unit*, u_int8_t *cos*)

Unconfigure tail drop by setting queue limits on both ingress and egress queues. smi_qos_unconfigure_tail_drop_by_value

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***pmap_name*** Policy map name string

← ***threshold*** Threshold <1-83886080>

← ***threshold_unit*** [Optional]Threshold unit string [packets | bytes | kbytes | mbytes | ms | us]

← ***cos*** CoS value <0-7>

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_POLICY_MAP
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_NO_CMAP_IN_PMAP
NSM_API_ERR_INVALID_RATE_UNIT
NSM_API_ERR_INVALID_RATE

2.1.2.81 s_int32_t smi_qos_unconfigure_wred_by_percent (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *pmap_name*, u_int8_t *min_percent*, u_int8_t *max_percent*, u_int8_t *cos*)

Unconfigure weighted random early detection (WRED) on both ingress and egress queues by setting aggregate minimum and maximum packet drop threshold default values for specific class of service (CoS) values. smi_qos_unconfigure_wred_by_percent

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***pmap_name*** Policy map name string

← ***min_percent*** Threshold <1-100>

← ***max_percent*** Threshold <1-100>

← ***cos*** CoS value <0-7>

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_POLICY_MAP
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_NO_CMAP_IN_PMAP
NSM_API_ERR_INVALID_RATE_UNIT
NSM_API_ERR_INVALID_RATE

2.1.2.82 s_int32_t smi_qos_unconfigure_wred_by_value (struct smiclient_globals * *azg*, u_int32_t *vr_id*, char * *cmap_name*, char * *pmap_name*, u_int32_t *min_threshold*, char * *min_threshold_unit*, u_int32_t *max_threshold*, char * *max_threshold_unit*, u_int8_t *cos*)

Unconfigure weighted random early detection (WRED) on both ingress and egress queues by setting aggregate minimum and maximum packet drop threshold default values for specific class of service (CoS) values. smi_qos_unconfigure_wred_by_value

Parameters:

← ***azg*** Pointer to the SMI client global structure

← ***vr_id*** Virtual Router ID <0-255>

← ***cmap_name*** Class map name string

← ***pmap_name*** Policy map name string

← ***min_threshold*** Threshold <1-13631280>

← ***min_threshold_unit*** [Optional]Threshold unit string [packets | bytes | kbytes | mbytes | ms | us]

← ***max_threshold*** Threshold <1-13631280>

← ***max_threshold_unit*** [Optional]Threshold unit string [packets | bytes | kbytes | mbytes | ms | us]

← ***cos*** CoS value <0-7>

Returns:

0 on success, otherwise one of the following error codes
NSM_API_ERR_NO_NSM_MASTER
NSM_API_ERR_NO_POLICY_MAP
NSM_API_ERR_NO_CLASS_MAP
NSM_API_ERR_NO_CMAP_IN_PMAP
NSM_API_ERR_INVALID_RATE_UNIT
NSM_API_ERR_INVALID_RATE

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