ZebOS-XP IGMP Snooping SMI Reference

IP Infusion Inc.

Generated by Doxygen 1.6.1

Wed Dec 16 12:33:25 2015

Contents

Chapter 1

File Index

1.1 File List

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

Chapter 2

File Documentation

2.1 smi_igmp_snooping.h File Reference

Describes the command API functions for managing the Internet Group Management Protocol (IGMP) snooping. `#include "smi_client.h"`

`#include "smi_igmp_snooping_msg.h"`

Functions

- int smi_igmp_snoop_api_set_snooping (struct smiclient_globals *azg)

  Globally enables IGMP snooping.

- int smi_igmp_snoop_api_unset_snooping (struct smiclient_globals *azg)

  Globally disables IGMP snooping. If the global setting is disabled, then all VLANs are treated as disabled, whether they are enabled or not.

- int smi_igmp_snoop_api_set_report_suppression (struct smiclient_globals *azg)

  Enable Report suppression on global level.

- int smi_igmp_snoop_api_unset_report_suppression (struct smiclient_globals *azg)

  Disable Report suppression on global level. If the global setting is disabled, then all VLANs are treated as disabled, whether they are enabled or not.

- int smi_igmp_snoop_api_if_snooping_set (struct smiclient_globals *azg, char *ifName)

  Enables IGMP snooping for the given VLAN interface.

- int smi_igmp_snoop_api_if_snooping_unset (struct smiclient_globals *azg, char *ifName)

Disables IGMP snooping for the given VLAN interface. If the global setting is disabled, then all VLANs are treated as disabled, whether they are enabled or not.

- int smi_igmp_snoop_api_if_fast_leave_set (struct smiclient_globals *azg, char *ifName)

  Enables IGMP snooping 'fast leave' processing for the given VLAN interface. If enabled the software removes the group state when it receives an IGMP Leave report without sending an IGMP query message. This parameter is used for IGMPv2 hosts when no more than one host is present on each VLAN port. The fast leave feature does not send last member query messages to hosts. As soon as the software receives an IGMP leave message, the software stops forwarding multicast data to that port.

- int smi_igmp_snoop_api_if_fast_leave_unset (struct smiclient_globals *azg, char *ifName)

  Disables IGMP snooping 'fast leave' processing for the given VLAN interface.

- int smi_igmp_snoop_api_if_mrouter_set (struct smiclient_globals *azg, char *ifName, char *mrouterIfName)

  Configures a static connection to a multicast router for IGMP snooping. The interface to the router must be in the selected VLAN. You can specify the interface by type and number.

- int smi_igmp_snoop_api_if_mrouter_unset (struct smiclient_globals *azg, char *ifName, char *mrouterIfName)

  Unconfigures a static connection to a multicast router for IGMP snooping.

- int smi_igmp_snoop_api_if_querier_vid_set (struct smiclient_globals *azg, u_int16_t vId, u_char *ipAddr)

  Enables IGMP snooping Querier. When an IGMP snooping querier is enabled, it sends out periodic IGMP queries that trigger IGMP report messages from hosts that want to receive IP multicast traffic. IGMP snooping listens to these IGMP reports to establish appropriate forwarding. When there is no multicast router in the VLAN to originate the queries, you must configure an IGMP snooping querier to send membership queries.

- int smi_igmp_snoop_api_if_querier_set (struct smiclient_globals *azg, char *ifName)

  Enables IGMP snooping Querier. When there is no multicast router in the VLAN to originate the queries, you must configure an IGMP snooping querier to send membership queries.

- int smi_igmp_snoop_api_if_querier_unset (struct smiclient_globals *azg, char *ifName)

  Disables IGMP snooping Querier. When there is no multicast router in the VLAN to originate the queries, you must configure an IGMP snooping querier to send membership queries.

- int smi_igmp_snoop_api_static_group_source_set (struct smiclient_globals *azg, char *vifName, char *groupAddr, char *sourceAddr, char *ifName)

Configure static multicast group.

- int smi_igmp_snoop_api_static_group_source_unset (struct smiclient_globals *azg, char *vifName, char *groupAddr, char *sourceAddr, char *ifName)

  Configure static multicast group.

- int smi_igmp_snoop_api_if_report_suppress_set (struct smiclient_globals *azg, char *ifName)

  Enables IGMP snooping Report Suppression for IGMP versions 1 and 2. If enabled, this limits the membership report traffic sent to multicast-capable routers. When you disable report suppression, all IGMP reports are sent as is to multicast-capable routers. Report suppression does not apply to IGMPv3.

- int smi_igmp_snoop_api_if_report_suppress_unset (struct smiclient_globals *azg, char *ifName)

  Disables IGMP snooping Report Suppression for IGMP versions 1 and 2. When you disable report suppression, all IGMP reports are sent as is to multicast-capable routers.

- int smi_igmp_snoop_api_if_querier_get (struct smiclient_globals *azg, char *ifName, u_int32_t *queryAddr)

  Gets the address of the IGMP Querier on the IP subnet to which this interface is attached.

- int smi_igmp_snoop_api_if_query_interval_get (struct smiclient_globals *azg, char *ifName, u_int32_t *queryInterval)

  Gets the frequency in seconds at which IGMP Host-Query packets are transmitted on this interface.

- int smi_igmp_snoop_api_if_status_get (struct smiclient_globals *azg, char *ifName, u_int32_t *rowStatus)

  Gets the conceptual row status.

- int smi_igmp_snoop_api_if_status_set (struct smiclient_globals *azg, char *ifName, u_int32_t rowStatus)

  Sets the conceptual row status to manage the creation and deletion of rows. It manages the ability to enable or disable multicast support on a given interface, and therefore presents a significant denial-of-service vulnerability.

- int smi_igmp_snoop_api_if_version_get (struct smiclient_globals *azg, char *ifName, u_int32_t *version)

  Gets the version of MGMD that is running on this interface. Value 1 applies to IGMPv1 routers only. Value 2 applies to IGMPv2 and MLDv1 routers, and value 3 applies to IGMPv3 and MLDv2 routers.

- int smi_igmp_snoop_api_if_query_response_interval_get (struct smiclient_globals *azg, char *ifName, u_int32_t *queryResponseInterval)

  Gets the maximum query response interval in deciseconds advertised in MGMDv2 or IGMPv3 queries on this interface.

- int smi_igmp_snoop_api_if_querier_uptime_get (struct smiclient_globals *azg, char *ifName, u_int32_t *upTime)

  Gets the time in centiseconds since mgmdRouterInterfaceQuerier was last changed.

- int smi_igmp_snoop_api_if_querier_expiry_time_get (struct smiclient_globals *azg, char *ifName, u_int32_t *expiryTime)

  Gets the amount of time in centiseconds remaining before the Other Querier Present Timer expires. If the local system is the querier, the value of this object is zero.

- int smi_igmp_snoop_api_if_wrong_version_queries_get (struct smiclient_globals *azg, char *ifName, u_int32_t *wrongVerCount)

  Gets the number of general queries received whose IGMP version does not match the equivalent mgmdRouterInterfaceVersion, over the lifetime of the row entry. Both IGMP and MLD require that all routers on a LAN be configured to run the same version. Thus, if any general queries are received with the wrong version, this indicates a configuration error.

- int smi_igmp_snoop_api_if_joins_get (struct smiclient_globals *azg, char *ifName, u_int32_t *joinCount)

  Gets the number of times a group membership has been added on this interface, that is, the number of times an entry for this interface has been added to the Cache Table. This object can give an indication of the amount of activity between samples over time.

- int smi_igmp_snoop_api_if_mroute_pxy_get (struct smiclient_globals *azg, char *ifName, u_int32_t *proxyIfIndex)

  Gets the Proxy interface index of this device. Some devices implement a form of IGMP proxying whereby memberships learned on the interface represented by this row cause Host Membership Reports to be sent on the interface whose ifIndex value is given by this object. Such a device would implement the mgmdV2RouterBaseMIBGroup only on its router interfaces (those interfaces with non-zero mgmdRouterInterfaceProxyIfIndex).
  Typically, the value of this object is 0, indicating that no proxying is being done.

- int smi_igmp_snoop_api_if_groups_get (struct smiclient_globals *azg, char *ifName, u_int32_t *groupCount)

  Gets the current number of entries for this interface in the mgmdRouterCacheTable.

- int smi_igmp_snoop_api_if_robustness_var_get (struct smiclient_globals *azg, char *ifName, u_int32_t *robustnessVar)

  Gets the Robustness Variable that allows tuning for the expected packet loss on a subnet. If a subnet is expected to be lossy, the Robustness Variable may be increased. IGMP is robust to (Robustness Variable-1) packet losses.

- int smi_igmp_snoop_api_if_lmqi_get (struct smiclient_globals *azg, char *ifName, u_int32_t *lastMemberQueryInterval)

  Gets the Last Member Query Interval in deciseconds, that is the Max Query Response Interval inserted into group-specific queries sent in response to leave group messages,

and is also the amount of time between group-specific query messages. This value may be tuned to modify the leave latency of the network. A reduced value results in reduced time to detect the loss of the last member of a group. The value of this object is irrelevant if mgmdRouterInterfaceVersion is 1.

- int smi_igmp_snoop_api_if_lmqc_get (struct smiclient_globals *azg, char *ifName, u_int32_t *lastMemberQueryCount)

  Gets the Last Member Query Count, the number of group-specific and group-and-source-specific queries sent by the router before it assumes there are no local members.

- int smi_igmp_snoop_api_if_sqc_get (struct smiclient_globals *azg, char *ifName, u_int32_t *startUpQueryCount)

  Gets the Startup Query Count, the number of Queries sent out on startup, separated by the Startup Query Interval.

- int smi_igmp_snoop_api_if_sqi_get (struct smiclient_globals *azg, char *ifName, u_int32_t *startUpQueryInterval)

  Gets the Startup Query Interval in seconds that represents the interval between General Queries sent by a Querier on startup.

- int smi_igmp_snoop_api_if_cache_last_reporter_get (struct smiclient_globals *azg, char *ifName, u_int8_t addrType, char *multicastGroupAddr, u_int32_t *lastReportAddr)

  Gets the IP address of the source of the last membership report received for this IP multicast group address on this interface. If no membership report has been received, this object has a value of 0.

- int smi_igmp_snoop_api_if_cache_uptime_get (struct smiclient_globals *azg, char *ifName, u_int8_t addrType, char *multicastGroupAddr, u_int32_t *upTime)

  Gets the time in centiseconds elapsed since this entry was created.

- int smi_igmp_snoop_api_if_cache_expiry_time_get (struct smiclient_globals *azg, char *ifName, u_int8_t addrType, char *multicastGroupAddr, u_int32_t *expiryTime)

  Gets the time in centiseconds that represents the time remaining before the Group Membership Interval state expires. The value must always be greater than or equal to 1.

- int smi_igmp_snoop_api_if_cache_exclmode_exp_timer_get (struct smiclient_globals *azg, char *ifName, u_int8_t addrType, char *multicastGroupAddr, u_int32_t *expExpiryTime)

  Gets the time in centiseconds that value is applicable only to MGMDv3-compatible nodes and represents the time remaining before the interface EXCLUDE state expires and the interface state transitions to INCLUDE mode. This value can never be greater than mgmdRouterCacheExpiryTime.

- int smi_igmp_snoop_api_if_cache_ver1_host_timer_get (struct smiclient_globals *azg, char *ifName, u_int8_t addrType, char *multicastGroupAddr, u_int32_t *v1hostTime)

  Gets the time in centiseconds, the time remaining until the local router will assume that there are no longer any MGMD version 1 members on the IP subnet attached to this interface.
  This entry only applies to IGMPv1 hosts, and is not implemented for MLD. Upon hearing any MGMDv1 Membership Report (IGMPv1 only), this value is reset to the group membership timer. While this time remaining is non-zero, the local router ignores any MGMDv2 Leave messages (IGMPv2 only) for this group that it receives on this interface.

- int smi_igmp_snoop_api_if_cache_ver2_host_timer_get (struct smiclient_globals *azg, char *ifName, u_int8_t addrType, char *multicastGroupAddr, u_int32_t *v2hostTime)

  Gets the time in centiseconds, the time remaining until the local router will assume that there are no longer any MGMD version 2 members on the IP subnet attached to this interface. This entry applies to both IGMP and MLD hosts. Upon hearing any MGMDv2 Membership Report, this value is reset to the group membership timer.
  Assuming no MGMDv1 hosts have been detected, the local router does not ignore any MGMDv2 Leave messages for this group that it receives on this interface.

- int smi_igmp_snoop_api_if_cache_src_filter_mode_get (struct smiclient_globals *azg, char *ifName, u_int8_t addrType, char *multicastGroupAddr, u_int32_t *filterMode)

  Gets the current cache state, applicable to MGMDv3-compatible nodes. The value indicates whether the state is INCLUDE or EXCLUDE.

- int smi_igmp_snoop_api_if_inv_cache_address_get (struct smiclient_globals *azg, char *ifName, u_int8_t addrType, char *multicastGroupAddr)

  Gets the IP multicast group address for which this entry contains information about an interface.

- int smi_igmp_snoop_api_if_srclist_host_address_get (struct smiclient_globals *azg, char *ifName, u_int8_t addrType, char *sourceLimitAddr, u_int32_t *sourceLimitHostAddr)

  Gets the host address to which this entry corresponds. The mgmdHostCacheSourceFilterMode value for this group address and interface indicates whether this host address is included or excluded.

- int smi_igmp_snoop_api_if_srclist_expiry_time_get (struct smiclient_globals *azg, char *ifName, u_int8_t addrType, char *sourceLimitAddr, char *sourceLimitHostAddress, u_int32_t *sourceLimitExpiryTime)

  Gets the time interval in centiseconds, indicates the relevance of the SrcList entry, whereby a non-zero value indicates this is an INCLUDE state value, and a zero value indicates this to be an EXCLUDE state value.

- int smi_igmp_snoop_api_clear_all (struct smiclient_globals *azg)

  Delete the IGMP groups cache entries of All groups from all interfaces.

- int smi_igmp_snoop_api_clear_if (struct smiclient_globals *azg, char *ifName)

  Delete the Interface IGMP entries of All groups of given interface.

- int smi_igmp_snoop_api_clear_group (struct smiclient_globals *azg, char *ipAddr)

  Delete the IGMP group cache entries of Given group from all interfaces.

- int smi_igmp_snoop_api_clear_group_if (struct smiclient_globals *azg, char *ipAddr, char *ifName)

  Delete the IGMP group cache entries of Given group on given interface.

- int smi_debug_ip_igmp_snooping_sdkapi (struct smiclient_globals *azg, int debug)

  Use this function to enable debugging of all IGMP Snooping , or a specific component of IGMP snooping.

- int smi_debug_no_ip_igmp_snooping_sdkapi (struct smiclient_globals *azg, int debug)

  Use this function to disable all IGMP SNOOPING debugging.

- int **smi_show_igmp_snooping_interface** (struct smiclient_globals *azg, u_int32_t vrId, char *ifName, struct list *ipIgmpSnoopInfoList, int(*funpointer)(struct list *ipIgmpSnoopInfoList))
- int **smi_show_igmp_snooping_mrouter_ifname** (struct smiclient_globals *azg, u_int32_t vrId, char *ifName, struct list *ipIgmpSnoopMrouterList, int(*funpointer)(struct list *ipIgmpSnoopMrouterList))
- int **smi_show_igmp_snooping_statistics_ifname** (struct smiclient_globals *azg, u_int32_t vrId, char *ifName, struct list *ipIgmpSnoopStatList, int(*funpointer)(struct list *ipIgmpSnoopStatList))
- int **smi_show_igmp_snooping_groups_detail** (struct smiclient_globals *azg, u_int32_t vrId, int detailFlag, struct list *ipIgmpSnoopGroupList, int(*funpointer)(struct list *ipIgmpSnoopGroupList))
- int **smi_show_igmp_snooping_groups_by_ifname** (struct smiclient_globals *azg, u_int32_t vrId, int detailFlag, char *ifName, struct list *ipIgmpSnoopGroupList, int(*funpointer)(struct list *ipIgmpSnoopGroupList))

- int **smi_show_igmp_snooping_groups_by_addr** (struct smiclient_globals *azg, u_int32_t vrId, int detailFlag, char *groupAddr, struct list *ipIgmpSnoopGroupList, int(*funpointer)(struct list *ipIgmpSnoopGroupList))

2.1.1 Detailed Description

Describes the command API functions for managing the Internet Group Management Protocol (IGMP) snooping. The APIs provided in this file forms the basis of ZebOS IGMP 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 int smi_debug_ip_igmp_snooping_sdkapi (struct smiclient_globals * *azg*, int *debug*)

Use this function to enable debugging of all IGMP Snooping , or a specific component of IGMP snooping. smi_debug_ip_igmp_snooping_sdkapi

Parameters:

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

← ***debug*** Pass debug flag as following:
SMI_IGMP_SNOOP_DECODE_FLAG - Debug IGMP decoding
SMI_IGMP_SNOOP_ENCODE_FLAG - Debug IGMP encoding
SMI_IGMP_SNOOP_EVENTS_FLAG - Debug IGMP events
SMI_IGMP_SNOOP_FSM_FLAG - Debug IGMP Finite State Machine (FSM)
SMI_IGMP_SNOOP_TIB_FLAG - Debug IGMP Tree Information Base (TIB)
SMI_IGMP_SNOOP_ALL_FLAG - Debug all IGMP

Returns:

0 on success, otherwise one of the following error codes IGMP_ERR_NO_-CONTEXT_INFO
SMI_ERROR

2.1.2.2 int smi_debug_no_ip_igmp_snooping_sdkapi (struct smiclient_globals * *azg*, int *debug*)

Use this function to disable all IGMP SNOOPING debugging. smi_debug_no_ip_-igmp_snooping_sdkapi

Parameters:

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

← ***debug*** Pass debug flag as following:
SMI_IGMP_SNOOP_DECODE_FLAG - Debug IGMP decoding
SMI_IGMP_SNOOP_ENCODE_FLAG - Debug IGMP encoding
SMI_IGMP_SNOOP_EVENTS_FLAG - Debug IGMP events
SMI_IGMP_SNOOP_FSM_FLAG - Debug IGMP Finite State Machine (FSM)
SMI_IGMP_SNOOP_TIB_FLAG - Debug IGMP Tree Information Base (TIB)
SMI_IGMP_SNOOP_ALL_FLAG - Debug all IGMP

Returns:

0 on success, otherwise one of the following error codes IGMP_ERR_NO_-CONTEXT_INFO
SMI_ERROR

2.1.2.3 int smi_igmp_snoop_api_clear_all (struct smiclient_globals * *azg*)

Delete the IGMP groups cache entries of All groups from all interfaces. smi_igmp_-snoop_api_clear_all

Parameters:

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

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_NO_SUCH_IFF

2.1.2.4 int smi_igmp_snoop_api_clear_group (struct smiclient_globals * *azg*, char * *ipAddr*)

Delete the IGMP group cache entries of Given group from all interfaces. smi_igmp_-snoop_api_clear_group

Parameters:

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

← ***ipAddr*** Multicast Group Address

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_NO_SUCH_GROUP_REC
IGMP_ERR_OOM
IGMP_ERR_MALFORMED_ARG

2.1.2.5 int smi_igmp_snoop_api_clear_group_if (struct smiclient_globals * *azg*, char * *ipAddr*, char * *ifName*)

Delete the IGMP group cache entries of Given group on given interface. smi_igmp_-snoop_api_clear_group_if

Parameters:

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

← ***ipAddr*** Multicast Group Address

← ***vId*** vlan id

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_NO_SUCH_GROUP_REC
IGMP_ERR_OOM
IGMP_ERR_MALFORMED_ARG

2.1.2.6 int smi_igmp_snoop_api_clear_if (struct smiclient_globals * *azg*, char * *ifName*)

Delete the Interface IGMP entries of All groups of given interface. smi_igmp_snoop_-api_clear_if

Parameters:

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

← ***ifname*** interface name

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_NO_SUCH_IFF

2.1.2.7 int smi_igmp_snoop_api_if_cache_exclmode_exp_timer_get (struct smiclient_globals * *azg*, char * *ifName*, u_int8_t *addrType*, char * *multicastGroupAddr*, u_int32_t * *expExpiryTime*)

Gets the time in centiseconds that value is applicable only to MGMDv3-compatible nodes and represents the time remaining before the interface EXCLUDE state expires and the interface state transitions to INCLUDE mode. This value can never be greater than mgmdRouterCacheExpiryTime. smi_igmp_snoop_api_if_cache_-exclmode_exp_timer_get

Parameters:

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

← ***ifName*** Interface Name

← ***addrType*** Address type { ipv4(1), ipv6(2) }

← ***mcgAddr*** IP multicast group address

→ ***eexpiryTime*** Time interval <0-4294967295>

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF

2.1.2.8 int smi_igmp_snoop_api_if_cache_expiry_time_get (struct smiclient_globals * *azg*, char * *ifName*, u_int8_t *addrType*, char * *multicastGroupAddr*, u_int32_t * *expiryTime*)

Gets the time in centiseconds that represents the time remaining before the Group Membership Interval state expires. The value must always be greater than or equal to 1. smi_igmp_snoop_api_if_cache_expiry_time_get

Parameters:

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

← ***ifName*** Interface Name

← ***addrType*** Address type { ipv4(1), ipv6(2) }

← ***mcgAddr*** IP multicast group address

→ ***expiryTime*** Time interval <0-4294967295>

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF

2.1.2.9 int smi_igmp_snoop_api_if_cache_last_reporter_get (struct smiclient_globals * *azg*, char * *ifName*, u_int8_t *addrType*, char * *multicastGroupAddr*, u_int32_t * *lastReportAddr*)

Gets the IP address of the source of the last membership report received for this IP multicast group address on this interface. If no membership report has been received, this object has a value of 0. smi_igmp_snoop_api_if_cache_last_reporter_get

Parameters:

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

← ***ifName*** Interface Name

← ***addrType*** Address type { ipv4(1), ipv6(2) }

← ***mcgAddr*** IP multicast group address

→ ***lrAddr*** IP address of the source of the last membership report received for this IP multicast group address

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF

2.1.2.10 int smi_igmp_snoop_api_if_cache_src_filter_mode_get (struct smiclient_globals * *azg*, char * *ifName*, u_int8_t *addrType*, char * *multicastGroupAddr*, u_int32_t * *filterMode*)

Gets the current cache state, applicable to MGMDv3-compatible nodes. The value indicates whether the state is INCLUDE or EXCLUDE. smi_igmp_snoop_api_if_-cache_src_filter_mode_get

Parameters:

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

← ***ifName*** Interface Name

← ***addrType*** Address type { ipv4(1), ipv6(2) }

← ***mcgAddr*** IP multicast group address

→ ***filterMode*** Source filter mode {include (1),exclude (2)}

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF

2.1.2.11 int smi_igmp_snoop_api_if_cache_uptime_get (struct smiclient_globals * *azg*, char * *ifName*, u_int8_t *addrType*, char * *multicastGroupAddr*, u_int32_t * *upTime*)

Gets the time in centiseconds elapsed since this entry was created. smi_igmp_snoop_-api_if_cache_uptime_get

Parameters:

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

← ***ifName*** Interface Name

← ***addrType*** Address type { ipv4(1), ipv6(2) }

← ***mcgAddr*** IP multicast group address

→ ***upTime*** Time interval <0-4294967295>

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF

2.1.2.12 int smi_igmp_snoop_api_if_cache_ver1_host_timer_get (struct smiclient_globals * *azg*, char * *ifName*, u_int8_t *addrType*, char * *multicastGroupAddr*, u_int32_t * *v1hostTime*)

Gets the time in centiseconds, the time remaining until the local router will assume that there are no longer any MGMD version 1 members on the IP subnet attached to this interface.

This entry only applies to IGMPv1 hosts, and is not implemented for MLD. Upon hearing any MGMDv1 Membership Report (IGMPv1 only), this value is reset to the group membership timer. While this time remaining is non-zero, the local router ignores any MGMDv2 Leave messages (IGMPv2 only) for this group that it receives on this interface. smi_igmp_snoop_api_if_cache_ver1_host_timer_get

Parameters:

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

← ***ifName*** Interface Name

← ***addrType*** Address type { ipv4(1), ipv6(2) }

← ***mcgAddr*** IP multicast group address

→ ***v1hostTime*** Time interval <0-4294967295>

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF

2.1.2.13 int smi_igmp_snoop_api_if_cache_ver2_host_timer_get (struct smiclient_globals * *azg*, char * *ifName*, u_int8_t *addrType*, char * *multicastGroupAddr*, u_int32_t * *v2hostTime*)

Gets the time in centiseconds, the time remaining until the local router will assume that there are no longer any MGMD version 2 members on the IP subnet attached to this interface. This entry applies to both IGMP and MLD hosts. Upon hearing any MGMDv2 Membership Report, this value is reset to the group membership timer.

Assuming no MGMDv1 hosts have been detected, the local router does not ignore any MGMDv2 Leave messages for this group that it receives on this interface. smi_igmp_snoop_api_if_cache_ver2_host_timer_get

Parameters:

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

← ***ifName*** Interface Name

← ***addrType*** Address type { ipv4(1), ipv6(2) }

← ***mcgAddr*** IP multicast group address

→ ***v2hostTime*** Time interval <0-4294967295>

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF

2.1.2.14 int smi_igmp_snoop_api_if_fast_leave_set (struct smiclient_globals * *azg*, char * *ifName*)

Enables IGMP snooping 'fast leave' processing for the given VLAN interface. If enabled the software removes the group state when it receives an IGMP Leave report without sending an IGMP query message. This parameter is used for IGMPv2 hosts when no more than one host is present on each VLAN port. The fast leave feature does not send last member query messages to hosts. As soon as the software receives an IGMP leave message, the software stops forwarding multicast data to that port. smi_igmp_snoop_api_if_fast_leave_set

Parameters:

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

← ***ifname*** interface name

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF
IGMP_ERR_L3_NON_VLAN_IF
IGMP_IF_ERR_ENABLE_FAILED
IGMP_ERR_MALFORMED_ARG
IGMP_ERR_GENERIC

2.1.2.15 int smi_igmp_snoop_api_if_fast_leave_unset (struct smiclient_globals * *azg*, char * *ifName*)

Disables IGMP snooping 'fast leave' processing for the given VLAN interface. smi_igmp_snoop_api_if_fast_leave_unset

Parameters:

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

← ***ifname*** interface name

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF
IGMP_ERR_L3_NON_VLAN_IF
IGMP_ERR_MALFORMED_ARG
IGMP_ERR_GENERIC

2.1.2.16 int smi_igmp_snoop_api_if_groups_get (struct smiclient_globals * *azg*, char * *ifName*, u_int32_t * *groupCount*)

Gets the current number of entries for this interface in the mgmdRouterCacheTable. smi_igmp_snoop_api_if_groups_get

Parameters:

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

← ***ifName*** Interface Name

→ ***groupCount*** Counter

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF

2.1.2.17 int smi_igmp_snoop_api_if_inv_cache_address_get (struct smiclient_globals * *azg*, char * *ifName*, u_int8_t *addrType*, char * *multicastGroupAddr*)

Gets the IP multicast group address for which this entry contains information about an interface. smi_igmp_snoop_api_if_inv_cache_address_get

Parameters:

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

← ***ifName*** Interface Name

← ***addrType*** Address type { ipv4(1), ipv6(2) }

← ***mcgAddr*** IP multicast group address

→ ***mcgAddr*** IP multicast group address

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF

2.1.2.18 int smi_igmp_snoop_api_if_joins_get (struct smiclient_globals * *azg*, char * *ifName*, u_int32_t * *joinCount*)

Gets the number of times a group membership has been added on this interface, that is, the number of times an entry for this interface has been added to the Cache Table. This object can give an indication of the amount of activity between samples over time. smi_igmp_snoop_api_if_joins_get

Parameters:

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

← ***ifName*** Interface Name

→ ***joinCount*** Group join counter

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF

2.1.2.19 int smi_igmp_snoop_api_if_lmqc_get (struct smiclient_globals * *azg*, char * *ifName*, u_int32_t * *lastMemberQueryCount*)

Gets the Last Member Query Count, the number of group-specific and group-and-source-specific queries sent by the router before it assumes there are no local members. smi_igmp_snoop_api_if_lmqc_get

Parameters:

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

← ***ifName*** Interface Name

→ ***lmqCount*** Counter <1-255>

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF

2.1.2.20 int smi_igmp_snoop_api_if_lmqi_get (struct smiclient_globals * *azg*, char * *ifName*, u_int32_t * *lastMemberQueryInterval*)

Gets the Last Member Query Interval in deciseconds, that is the Max Query Response Interval inserted into group-specific queries sent in response to leave group messages, and is also the amount of time between group-specific query messages. This value may be tuned to modify the leave latency of the network. A reduced value results in reduced time to detect the loss of the last member of a group. The value of this object is irrelevant if mgmdRouterInterfaceVersion is 1. smi_igmp_snoop_api_if_lmqi_get

Parameters:

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

← ***ifName*** Interface Name

→ ***lmq_interval*** Time interval <0-31744>

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF

2.1.2.21 int smi_igmp_snoop_api_if_mroute_pxy_get (struct smiclient_globals * *azg*, char * *ifName*, u_int32_t * *proxyIfIndex*)

Gets the Proxy interface index of this device. Some devices implement a form of IGMP proxying whereby memberships learned on the interface represented by this row cause Host Membership Reports to be sent on the interface whose ifIndex value is given by this object. Such a device would implement the mgmdV2RouterBaseMIBGroup only on its router interfaces (those interfaces with non-zero mgmdRouterInterfaceProxy-IfIndex).

Typically, the value of this object is 0, indicating that no proxying is being done. smi_-igmp_snoop_api_if_mroute_pxy_get

Parameters:

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

← ***ifName*** Interface Name

→ ***proxyIfIndex*** Proxy interface index

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF

2.1.2.22 int smi_igmp_snoop_api_if_mrouter_set (struct smiclient_globals * *azg*, char * *ifName*, char * *mrouterIfName*)

Configures a static connection to a multicast router for IGMP snooping. The interface to the router must be in the selected VLAN. You can specify the interface by type and number. smi_igmp_snoop_api_if_mrouter_set

Parameters:

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

← ***ifname*** interface name

← ***mrouterIfName*** Multicast Router Interface Name

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF
IGMP_ERR_L3_NON_VLAN_IF
IGMP_ERR_CFG_WITH_MROUTE_PROXY
IGMP_ERR_OOM
IGMP_IF_ERR_ENABLE_FAILED
IGMP_ERR_MALFORMED_ARG
IGMP_ERR_GENERIC

2.1.2.23 int smi_igmp_snoop_api_if_mrouter_unset (struct smiclient_globals * *azg*, char * *ifName*, char * *mrouterIfName*)

Unconfigures a static connection to a multicast router for IGMP snooping. smi_igmp_snoop_api_if_mrouter_unset

Parameters:

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

← ***ifname*** interface name

← ***mrouter_ifname*** Multicast Router Interface Name

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF
IGMP_ERR_L3_NON_VLAN_IF
IGMP_ERR_MALFORMED_ARG
IGMP_ERR_GENERIC

2.1.2.24 int smi_igmp_snoop_api_if_querier_expiry_time_get (struct smiclient_globals * *azg*, char * *ifName*, u_int32_t * *expiryTime*)

Gets the amount of time in centiseconds remaining before the Other Querier Present Timer expires. If the local system is the querier, the value of this object is zero. smi_igmp_snoop_api_if_querier_expiry_time_get

Parameters:

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

← ***ifName*** Interface Name

→ ***expiryTime*** Time interval <0-4294967295>

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF

2.1.2.25 int smi_igmp_snoop_api_if_querier_get (struct smiclient_globals * *azg*, char * *ifName*, u_int32_t * *queryAddr*)

Gets the address of the IGMP Querier on the IP subnet to which this interface is attached. smi_igmp_snoop_api_if_querier_get

Parameters:

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

← ***ifName*** Interface Name

→ ***addr*** IGMP Querier address

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF

2.1.2.26 int smi_igmp_snoop_api_if_querier_set (struct smiclient_globals * *azg*, char * *ifName*)

Enables IGMP snooping Querier. When there is no multicast router in the VLAN to originate the queries, you must configure an IGMP snooping querier to send membership queries. smi_igmp_snoop_api_if_querier_set

Parameters:

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

← ***ifname*** interface name

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF
IGMP_ERR_L3_NON_VLAN_IF
IGMP_ERR_MALFORMED_ARG
IGMP_ERR_GENERIC

2.1.2.27 int smi_igmp_snoop_api_if_querier_unset (struct smiclient_globals * *azg*, char * *ifName*)

Disables IGMP snooping Querier. When there is no multicast router in the VLAN to originate the queries, you must configure an IGMP snooping querier to send membership queries. smi_igmp_snoop_api_if_querier_unset

Parameters:

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

← ***ifname*** interface name

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF
IGMP_ERR_L3_NON_VLAN_IF
IGMP_ERR_MALFORMED_ARG
IGMP_ERR_GENERIC

2.1.2.28 int smi_igmp_snoop_api_if_querier_uptime_get (struct smiclient_globals * *azg*, char * *ifName*, u_int32_t * *upTime*)

Gets the time in centiseconds since mgmdRouterInterfaceQuerier was last changed. smi_igmp_snoop_api_if_querier_uptime_get

Parameters:

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

← ***ifName*** Interface Name

→ ***upTime*** Time interval <0-4294967295>

Returns:

Return Success (i.e Zero), otherwise one of the following errors

IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF

2.1.2.29 int smi_igmp_snoop_api_if_querier_vid_set (struct smiclient_globals * *azg*, u_int16_t *vId*, u_char * *ipAddr*)

Enables IGMP snooping Querier. When an IGMP snooping querier is enabled, it sends out periodic IGMP queries that trigger IGMP report messages from hosts that want to receive IP multicast traffic. IGMP snooping listens to these IGMP reports to establish appropriate forwarding. When there is no multicast router in the VLAN to originate the queries, you must configure an IGMP snooping querier to send membership queries. smi_igmp_snoop_api_if_querier_vid_set

Parameters:

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

← ***vId*** Vlan id

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF
IGMP_ERR_L3_NON_VLAN_IF
IGMP_IF_ERR_ENABLE_FAILED
IGMP_ERR_MALFORMED_ARG
IGMP_ERR_GENERIC

2.1.2.30 int smi_igmp_snoop_api_if_query_interval_get (struct smiclient_globals * *azg*, char * *ifName*, u_int32_t * *queryInterval*)

Gets the frequency in seconds at which IGMP Host-Query packets are transmitted on this interface. smi_igmp_snoop_api_if_query_interval_get

Parameters:

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

← ***ifName*** Interface Name

→ ***q_interval*** Time interval <1-31744>

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF

2.1.2.31 int smi_igmp_snoop_api_if_query_response_interval_get (struct smiclient_globals * *azg*, char * *ifName*, u_int32_t * *queryResponseInterval*)

Gets the maximum query response interval in deciseconds advertised in MGMDv2 or IGMPv3 queries on this interface. smi_igmp_snoop_api_if_query_response_interval_-get

Parameters:

← ***azg*** Pointer to the SMI client global structure
← ***ifName*** Interface Name
→ ***qrInterval*** Time interval <0-31744>

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF

2.1.2.32 int smi_igmp_snoop_api_if_report_suppress_set (struct smiclient_globals * *azg*, char * *ifName*)

Enables IGMP snooping Report Suppression for IGMP versions 1 and 2. If enabled, this limits the membership report traffic sent to multicast-capable routers. When you disable report suppression, all IGMP reports are sent as is to multicast-capable routers. Report suppression does not apply to IGMPv3. smi_igmp_snoop_api_if_-report_suppress_set

Parameters:

← ***azg*** Pointer to the SMI client global structure
← ***ifname*** interface name

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF
IGMP_ERR_L3_NON_VLAN_IF
IGMP_ERR_MALFORMED_ARG
IGMP_ERR_GENERIC

2.1.2.33 int smi_igmp_snoop_api_if_report_suppress_unset (struct smiclient_globals * *azg*, char * *ifName*)

Disables IGMP snooping Report Suppression for IGMP versions 1 and 2. When you disable report suppression, all IGMP reports are sent as is to multicast-capable routers.

smi_igmp_snoop_api_if_report_suppress_unset

Parameters:

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

← ***ifname*** interface name

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF
IGMP_ERR_L3_NON_VLAN_IF
IGMP_IF_ERR_ENABLE_FAILED
IGMP_ERR_MALFORMED_ARG
IGMP_ERR_GENERIC

2.1.2.34 int smi_igmp_snoop_api_if_robustness_var_get (struct smiclient_globals * *azg*, char * *ifName*, u_int32_t * *robustnessVar*)

Gets the Robustness Variable that allows tuning for the expected packet loss on a subnet. If a subnet is expected to be lossy, the Robustness Variable may be increased. IGMP is robust to (Robustness Variable-1) packet losses. smi_igmp_snoop_api_if_robustness_var_get

Parameters:

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

← ***ifName*** Interface Name

→ ***robustnessVar*** Robustness variable <1-255>

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF

2.1.2.35 int smi_igmp_snoop_api_if_snooping_set (struct smiclient_globals * *azg*, char * *ifName*)

Enables IGMP snooping for the given VLAN interface. smi_igmp_snoop_api_if_snooping_set

Parameters:

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

← ***ifName*** interface name

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF
IGMP_ERR_L3_NON_VLAN_IF
IGMP_ERR_MALFORMED_ARG
IGMP_ERR_GENERIC

2.1.2.36 int smi_igmp_snoop_api_if_snooping_unset (struct smiclient_globals * *azg*, char * *ifName*)

Disables IGMP snooping for the given VLAN interface. If the global setting is disabled, then all VLANs are treated as disabled, whether they are enabled or not. smi_igmp_snoop_api_if_snooping_unset

Parameters:

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

← ***ifname*** interface name

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF
IGMP_ERR_L3_NON_VLAN_IF
IGMP_ERR_SNOOP_DISABLE_FAILED
IGMP_ERR_MALFORMED_ARG
IGMP_ERR_GENERIC

2.1.2.37 int smi_igmp_snoop_api_if_sqc_get (struct smiclient_globals * *azg*, char * *ifName*, u_int32_t * *startUpQueryCount*)

Gets the Startup Query Count, the number of Queries sent out on startup, separated by the Startup Query Interval. smi_igmp_snoop_api_if_sqc_get

Parameters:

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

← ***ifName*** Interface Name

→ ***sqCount*** Counter <1-255>

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF

2.1.2.38 int smi_igmp_snoop_api_if_sqi_get (struct smiclient_globals * *azg*, char * *ifName*, u_int32_t * *startUpQueryInterval*)

Gets the Startup Query Interval in seconds that represents the interval between General Queries sent by a Querier on startup. smi_igmp_snoop_api_if_sqi_get

Parameters:

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

← ***ifName*** Interface Name

→ ***sqInterval*** Time interval <0-31744>

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF

2.1.2.39 int smi_igmp_snoop_api_if_srclist_expiry_time_get (struct smiclient_globals * *azg*, char * *ifName*, u_int8_t *addrType*, char * *sourceLimitAddr*, char * *sourceLimitHostAddress*, u_int32_t * *sourceLimitExpiryTime*)

Gets the time interval in centiseconds, indicates the relevance of the SrcList entry, whereby a non-zero value indicates this is an INCLUDE state value, and a zero value indicates this to be an EXCLUDE state value. smi_igmp_snoop_api_if_srclist_-expiry_time_get

Parameters:

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

← ***ifName*** Interface Name

← ***addrType*** Address type { ipv4(1), ipv6(2) }

← ***slAddr*** IP multicast group address

← ***slhAddress*** Source list host address

→ ***slExpTime*** Time interval <0-4294967295>

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF
IGMP_ERR_API_GET

2.1.2.40 int smi_igmp_snoop_api_if_srclist_host_address_get (struct smiclient_globals * *azg*, char * *ifName*, u_int8_t *addrType*, char * *sourceLimitAddr*, u_int32_t * *sourceLimitHostAddr*)

Gets the host address to which this entry corresponds. The mgmdHostCacheSourceFilterMode value for this group address and interface indicates whether this host address is included or excluded. smi_igmp_snoop_api_if_srclist_host_address_get

Parameters:

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

← ***ifName*** Interface Name

← ***addrType*** Address type { ipv4(1), ipv6(2) }

← ***slAddr*** IP multicast group address

→ ***slhAddr*** Source list host address

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF
IGMP_ERR_API_GET

2.1.2.41 int smi_igmp_snoop_api_if_status_get (struct smiclient_globals * *azg*, char * *ifName*, u_int32_t * *rowStatus*)

Gets the conceptual row status. smi_igmp_snoop_api_if_status_get

Parameters:

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

← ***ifName*** Interface Name

→ ***rowStatus*** Conceptual row status.

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF

2.1.2.42 int smi_igmp_snoop_api_if_status_set (struct smiclient_globals * *azg*, char * *ifName*, u_int32_t *rowStatus*)

Sets the conceptual row status to manage the creation and deletion of rows. It manages the ability to enable or disable multicast support on a given interface, and therefore presents a significant denial-of-service vulnerability. smi_igmp_snoop_api_if_status_-set

Parameters:

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

← ***ifName*** Interface Name

← ***rowStatus*** Conceptual row status active -row is available for use notInService - row exists but is unavailable for use notReady - row exists but missing information createAndGo - create a new instance, set to active createAndWait - create a new instance, but is unavailable for use destroy - delete all of the instances

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF
IGMP_SNMP_ROW_STATUS_ACTIVE
IGMP_IF_ERR_ENABLE_FAILED
IGMP_ERR_MALFORMED_ARG
IGMP_ERR_GENERIC
IGMP_ERR_API_GET

2.1.2.43 int smi_igmp_snoop_api_if_version_get (struct smiclient_globals * *azg*, char * *ifName*, u_int32_t * *version*)

Gets the version of MGMD that is running on this interface. Value 1 applies to IGMPv1 routers only. Value 2 applies to IGMPv2 and MLDv1 routers, and value 3 applies to IGMPv3 and MLDv2 routers. smi_igmp_snoop_api_if_version_get

Parameters:

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

← ***ifName*** Interface Name

→ ***version*** Interface version <1-3>

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF

2.1.2.44 int smi_igmp_snoop_api_if_wrong_version_queries_get (struct smiclient_globals * *azg*, char * *ifName*, u_int32_t * *wrongVerCount*)

Gets the number of general queries received whose IGMP version does not match the equivalent mgmdRouterInterfaceVersion, over the lifetime of the row entry. Both IGMP and MLD require that all routers on a LAN be configured to run the same version. Thus, if any general queries are received with the wrong version, this indicates a configuration error. smi_igmp_snoop_api_if_wrong_version_queries_get

Parameters:

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

← ***ifName*** Interface Name

→ ***wrongVerCount*** Counter

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_L2_PHYSICAL_IF
IGMP_ERR_NO_SUCH_IFF

2.1.2.45 int smi_igmp_snoop_api_set_report_suppression (struct smiclient_globals * *azg*)

Enable Report suppression on global level. smi_igmp_snoop_api_set_snooping

Parameters:

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

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE

2.1.2.46 int smi_igmp_snoop_api_set_snooping (struct smiclient_globals * *azg*)

Globally enables IGMP snooping. smi_igmp_snoop_api_set_snooping

Parameters:

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

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE

2.1.2.47 int smi_igmp_snoop_api_static_group_source_set (struct smiclient_globals * *azg*, char * *vifName*, char * *groupAddr*, char * *sourceAddr*, char * *ifName*)

Configure static multicast group. smi_igmp_snoop_api_static_group_source_set_-sdkapi

Parameters:

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

← ***srcAddr*** Source Address

← ***grpAddr*** Multicast Group Address

← ***ifName*** Inteface Name

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_IP_ADDR
L2MRIB_ERR_INVALID_VID
IGMP_ERR_INVALID_PORT

2.1.2.48 int smi_igmp_snoop_api_static_group_source_unset (struct smiclient_globals * *azg*, char * *vifName*, char * *groupAddr*, char * *sourceAddr*, char * *ifName*)

Configure static multicast group. smi_igmp_snoop_api_static_group_source_unset_-sdkapi

Parameters:

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

← ***srcAddr*** Source Address

← ***grpAddr*** Multicast Group Address

← ***ifName*** Inteface Name

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_IP_ADDR
L2MRIB_ERR_INVALID_VID
IGMP_ERR_INVALID_PORT

2.1.2.49 int smi_igmp_snoop_api_unset_report_suppression (struct smiclient_globals * *azg*)

Disable Report suppression on global level. If the global setting is disabled, then all VLANs are treated as disabled, whether they are enabled or not. smi_igmp_snoop_-api_unset_report_suppression

Parameters:

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

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_SNOOP_DISABLE_FAILED

2.1.2.50 int smi_igmp_snoop_api_unset_snooping (struct smiclient_globals * *azg*)

Globally disables IGMP snooping. If the global setting is disabled, then all VLANs are treated as disabled, whether they are enabled or not. smi_igmp_snoop_api_unset_-snooping

Parameters:

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

Returns:

Return Success (i.e Zero), otherwise one of the following errors
IGMP_ERR_INVALID_VALUE
IGMP_ERR_SNOOP_DISABLE_FAILED

Index