

ZebOS-XP MRIB4 SMI Reference
IP Infusion Inc.

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Chapter 1

Data Structure Index

1.1 Data Structures

Here are the data structures with brief descriptions:

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Chapter 2

File Index

2.1 File List

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

smi_mrib4.h (Describes the Multicast Routing Information Base IPv4 (MRIBv4) command API functions)	13
smi_mrib4_msg.h (Defines data structures used by MRIB4 SMI APIs)	23

Chapter 3

Data Structure Documentation

3.1 mrib4_msg_ Struct Reference

Data Fields

- smi_cindex_t **cindex_0**
- smi_cindex_t **cindex_1**
- u_int32_t **vr_id**
- vrf_id_t **vrf_id**
- u_int32_t **rt_limit**
- u_int32_t **rt_thresh**
- char **ifname** [255]
- u_char **ttl**
- struct pal_in4_addr **grp**
- struct pal_in4_addr **src**
- char **char_src** [32]
- char **char_grp** [32]
- int **mrt_filter**
- char **addr** [32]
- int **cli_mode**
- char **vrf_name** [255]
- int **debug**
- u_int32_t **ifindex**
- u_int32_t **ttl_val**
- u_int32_t **ratelimit_val**
- ut_int64_t **inmcast_val**
- ut_int64_t **outmcast_val**
- u_int32_t **state_val**
- u_int32_t **uptime_val**
- u_int32_t **expirytime_val**
- u_int32_t **closest_val**
- u_int32_t **protocol_val**

- `u_int32_t timestamp_val`
- `u_int32_t inifindex_val`
- `ut_int64_t pkts_val`
- `ut_int64_t diffinifpackets_val`
- `ut_int64_t octets_val`
- struct [smiMRIB4AllVifList](#) `mrib4AllVifList`
- struct [smiMRIB4AllIpMrouteList](#) `mrib4AllIpMrouteList`

The documentation for this struct was generated from the following file:

- [smi_mrib4_msg.h](#)

3.2 mrib4MrouteInfo Struct Reference

Data Fields

- u_int32_t **mrt_entry_count**
- u_int32_t **mrt_entry_count_bytes**
- u_int32_t **rt_limit**
- u_int32_t **rt_threshold**
- u_int32_t **num_nocache_recv**
- u_int32_t **num_wrongvif_recv**
- u_int32_t **num_wholepkt_recv**
- u_int32_t **num_nocache_sent**
- u_int32_t **num_wrongvif_sent**
- u_int32_t **num_wholepkt_sent**
- u_int32_t **num_imm_stat_sent**
- u_int32_t **num_timed_stat_sent**
- u_int32_t **reg_pkt_sent**
- u_int32_t **reg_ack_recv**
- u_int32_t **reg_nack_recv**
- char **poll_timeutil** [27]
- u_int32_t **pkts_fwd**
- u_int32_t **bytes_fwd**
- u_int32_t **wrong_if**
- char **modname** [20]
- char **stats_timeutil** [27]
- u_int32_t **_flags**
- char **uptime** [27]
- char **incoming_int** [32]
- char **outgoing_int** [32]
- struct list * **outIntList**

The documentation for this struct was generated from the following file:

- [smi_mrib4_msg.h](#)

3.3 mrrib4VifInfo Struct Reference

Data Fields

- char **modname** [20]
- char **timeutil** [27]
- char **vif_name** [16]
- unsigned int **ifindex**
- u_char **ttl**
- char **localAddr** [16]
- char **remoteAddr** [16]

The documentation for this struct was generated from the following file:

- [smi_mrrib4_msg.h](#)

3.4 outInterface Struct Reference

Data Fields

- char **outName** [31]
- u_char **outTtl**

The documentation for this struct was generated from the following file:

- [smi_mrib4_msg.h](#)

3.5 smiMRIB4AllIpMrouteList Struct Reference

Data Fields

- int **have_more**
- int **count**
- struct list * **MsgList**

The documentation for this struct was generated from the following file:

- [smi_mrib4_msg.h](#)

3.6 smiMRIB4AllVifList Struct Reference

Data Fields

- int **have_more**
- int **count**
- struct list * **MsgList**

The documentation for this struct was generated from the following file:

- [smi_mrib4_msg.h](#)

Chapter 4

File Documentation

4.1 smi_mrib4.h File Reference

describes the Multicast Routing Information Base IPv4 (MRIBv4) command API functions. `#include "smi_client.h"`

`#include "smi_mrib4_msg.h"`

Functions

- int [smi_mrib4_api_multicast_routing_set_sdkapi](#) (struct smiclient_globals *azg, u_int32_t vrfId, char *vrfName)
This function sets multicast routing on the router through the MRIB process.
- int [smi_mrib4_api_multicast_routing_unset_sdkapi](#) (struct smiclient_globals *azg, u_int32_t vrfId, char *vrfName)
This function stops the L3 IPv4 multicast routing on the router through the MRIB process.
- int [smi_mrib4_api_rt_limit_thresh_set_sdkapi](#) (struct smiclient_globals *azg, u_int32_t vrfId, char *vrfName, u_int32_t routeLimit, u_int32_t routeThresh)
This function sets the threshold of the route in the multicast route entries in the MRIB/MFIB.
- int [smi_mrib4_api_rt_limit_thresh_unset_sdkapi](#) (struct smiclient_globals *azg, u_int32_t vrfId, char *vrfName)
This function resets the threshold of the multicast route entries in the MRIB/MFIB.
- int [smi_mrib4_api_rt_limit_set](#) (struct smiclient_globals *azg, u_int32_t vrfId, vrf_id_t vrfId, u_int32_t routeLimit)
This function sets the limit of the multicast route entries in the MRIB/MFIB.

- int [smi_mrib4_api_vif_ttl_threshold_set](#) (struct smiclient_globals *azg, u_int32_t vrId, char *ifName, u_char timeToLive)

This function sets the multicast forwarding Time To Live (TTL) threshold value to the interface, which filters the multicast data packet. The interface has the greater TTL.

- int [smi_mrib4_api_vif_ttl_threshold_unset](#) (struct smiclient_globals *azg, u_int32_t vrId, char *ifName)

This function resets the multicast TTL forwarding value to the default setting.

- int [smi_mrib4_api_clear_mroute_all_sdkapi](#) (struct smiclient_globals *azg, u_int32_t vrId, char *vrfName)

This function clears the multicast entry in the MRIB/MFIB.

- int [smi_mrib4_api_clear_mroute_g_sdkapi](#) (struct smiclient_globals *azg, u_int32_t vrId, char *vrfName, struct pal_in4_addr *groupAddr)

This function clears the multicast route entries, which has the specified group value in the MRIB/MFIB.

- int [smi_mrib4_api_clear_mroute_sg_sdkapi](#) (struct smiclient_globals *azg, u_int32_t vrId, char *vrfName, struct pal_in4_addr *sourceAddr, struct pal_in4_addr *groupAddr)

This function clears the multicast route entry, which matches the specified source (unicast) address and the group (multicast) address (S,G) entry.

- int [smi_mrib4_api_clear_mroute_stats_all_sdkapi](#) (struct smiclient_globals *azg, u_int32_t vrId, char *vrfName)

This function clears the IPv4 multicast statistics from the MRIB/MFIB.

- int [smi_mrib4_api_clear_mroute_stats_g_sdkapi](#) (struct smiclient_globals *azg, u_int32_t vrId, char *vrfName, struct pal_in4_addr *groupAddr)

This function clears the multicast statics, which matches to the specific group entry.

- int [smi_mrib4_api_clear_mroute_stats_sg_sdkapi](#) (struct smiclient_globals *azg, u_int32_t vrId, char *vrfName, struct pal_in4_addr *sourceAddr, struct pal_in4_addr *groupAddr)

This function clears the multicast statistics, which matches the specified (S, G) entry.

- int [smi_mrib4_debug_ip_sdkapi](#) (struct smiclient_globals *azg, int vrId, char *vrfName, int debug)

Use this function to specify the set of debug options for the IPv4 multicast.

- int [smi_mrib4_no_debug_ip_sdkapi](#) (struct smiclient_globals *azg, int vrId, char *vrfName, int debug)

Use the no parameter with this command to disable debugging of IPv4 multicast.

- int [smi_mrib4_api_rt_limit_set_sdkapi](#) (struct smiclient_globals *azg, u_int32_t vrId, char *vrfName, u_int32_t rtLimit)

- **int smi_show_mrib4_vif_all** (struct smiclient_globals *azg, u_int32_t vrfId, vrf_id_t vrfId, struct list *vifAllList, int(*funpointer)(struct list *vifAllList), char *ifname)
- **int smi_show_mrib4_ip_mroute_all** (struct smiclient_globals *azg, u_int32_t vrfId, char *vrfName, int mrtFilter, struct list *ipMrouteAllList, int(*funpointer)(struct list *ipMrouteAllList))
- **int smi_show_mrib4_ip_mroute_byaddr** (struct smiclient_globals *azg, u_int32_t vrfId, char *vrfName, int mrtFilter, char *addr, struct list *ipMrouteAllList, int(*funpointer)(struct list *ipMrouteAllList))
- **int smi_show_mrib4_ip_mroute_info_bysgaddr** (struct smiclient_globals *azg, u_int32_t vrfId, char *vrfName, int mrtFilter, char *sourceAddr, char *groupAddr, struct list *ipMrouteAllList, int(*funpointer)(struct list *ipMrouteAllList))

4.1.1 Detailed Description

describes the Multicast Routing Information Base IPv4 (MRIBv4) command API functions. The API provided in this file forms the basis of ZebOS mrib4 management. These APIs are used by various north bound management interfaces like CLI, SNMP and SMI

4.1.2 Function Documentation

4.1.2.1 int smi_mrib4_api_clear_mroute_all_sdkapi (struct smiclient_globals *azg, u_int32_t vrfId, char *vrfName)

This function clears the multicast entry in the MRIB/MFIB. smi_mrib4_api_clear_mroute_all

Parameters:

- ← **azg** Pointer to the SMI client global structure
- ← **vrfId** Virtual router id <1-32>
- ← **vrfName** VPN routing/forwarding instance Name

Returns:

MRIB_API_SET_SUCCESS on success, otherwise one of the following error codes
 MRIB_API_SET_ERR_WRONG_VR
 MRIB_API_SET_ERR_WRONG_VRF

4.1.2.2 int smi_mrib4_api_clear_mroute_g_sdkapi (struct smiclient_globals *azg, u_int32_t vrfId, char *vrfName, struct pal_in4_addr *groupAddr)

This function clears the multicast route entries, which has the specified group value in the MRIB/MFIB. smi_mrib4_api_clear_mroute_g

Parameters:

- ← *azg* Pointer to the SMI client global structure
- ← *vrId* Virtual router id <1-32>
- ← *vrfName* VPN routing/forwarding instance Name
- *group* Group IP address

Returns:

MRIB_API_SET_SUCCESS on success, otherwise one of the following error codes

MRIB_API_SET_ERR_WRONG_VR

MRIB_API_SET_ERR_WRONG_VRF

MRIB_API_SET_ERR_INVALID_GROUP_ADDRESS

4.1.2.3 **int smi_mrib4_api_clear_mroute_sg_sdkapi (struct smiclient_globals * azg, u_int32_t vrId, char * vrfName, struct pal_in4_addr * sourceAddr, struct pal_in4_addr * groupAddr)**

This function clears the multicast route entry, which matches the specified source (unicast) address and the group (multicast) address (S,G) entry. smi_mrib4_api_clear_mroute_sg

Parameters:

- ← *azg* Pointer to the SMI client global structure
- ← *vrId* Virtual router id <1-32>
- ← *vrfName* VPN routing/forwarding instance Name.
- *src* Source IP address
- *grp* Group IP address

Returns:

MRIB_API_SET_SUCCESS on success, otherwise one of the following error codes

MRIB_API_SET_ERR_WRONG_VR

MRIB_API_SET_ERR_WRONG_VRF

MRIB_API_SET_ERR_INVALID_GROUP_ADDRESS

MRIB_API_SET_ERR_INVALID_SOURCE_ADDRESS

MRIB_API_SET_ERR_MRT_NOT_EXIST

4.1.2.4 **int smi_mrib4_api_clear_mroute_stats_all_sdkapi (struct smiclient_globals * azg, u_int32_t vrId, char * vrfName)**

This function clears the IPv4 multicast statistics from the MRIB/MFIB. smi_mrib4_api_clear_mroute_stats_all

Parameters:

- ← *azg* Pointer to the SMI client global structure
- ← *vrId* Virtual router id <1-32>
- ← *vrfName* VPN routing/forwarding instance Name

Returns:

MRIB_API_SET_SUCCESS on success, otherwise one of the following error codes

MRIB_API_SET_ERR_WRONG_VR

MRIB_API_SET_ERR_WRONG_VRF

4.1.2.5 `int smi_mrib4_api_clear_mroute_stats_g_sdkapi (struct smiclient_globals * azg, u_int32_t vrId, char * vrfName, struct pal_in4_addr * groupAddr)`

This function clears the multicast statics, which matches to the specific group entry.

`smi_mrib4_api_clear_mroute_stats_g`

Parameters:

- ← *azg* Pointer to the SMI client global structure
- ← *vrId* Virtual router id <1-32>
- ← *vrfName* VPN routing/forwarding instance Name
- *grp* Group IP address

Returns:

MRIB_API_SET_SUCCESS on success, otherwise one of the following error codes

MRIB_API_SET_ERR_WRONG_VR

MRIB_API_SET_ERR_WRONG_VRF

MRIB_API_SET_ERR_INVALID_GROUP_ADDRESS

4.1.2.6 `int smi_mrib4_api_clear_mroute_stats_sg_sdkapi (struct smiclient_globals * azg, u_int32_t vrId, char * vrfName, struct pal_in4_addr * sourceAddr, struct pal_in4_addr * groupAddr)`

This function clears the multicast statistics, which matches the specified (S, G) entry.

`smi_mrib4_api_clear_mroute_stats_sg`

Parameters:

- ← *azg* Pointer to the SMI client global structure
- ← *vrId* Virtual router id <1-32>
- ← *vrfName* VPN routing/forwarding instance Name

- *src* Group IP address
- *grp* Group IP address

Returns:

MRIB_API_SET_SUCCESS on success, otherwise one of the following error codes

- MRIB_API_SET_ERR_WRONG_VR
- MRIB_API_SET_ERR_WRONG_VRF
- MRIB_API_SET_ERR_INVALID_GROUP_ADDRESS
- MRIB_API_SET_ERR_INVALID_SOURCE_ADDRESS
- MRIB_API_SET_ERR_MRT_NOT_EXIST

4.1.2.7 **int smi_mrib4_api_multicast_routing_set_sdkapi (struct smiclient_globals * azg, u_int32_t vrId, char * vrfName)**

This function sets multicast routing on the router through the MRIB process. smi_mrib4_api_multicast_routing_set

Parameters:

- ← *azg* Pointer to the SMI client global structure
- ← *vrId* Virtual router id <1-32>
- ← *vrfName* VPN routing/forwarding instance Name

Returns:

MRIB_API_SET_SUCCESS on success, otherwise one of the following error codes

- MRIB_API_SET_ERR_WRONG_VR
- MRIB_API_SET_ERR_WRONG_VRF

4.1.2.8 **int smi_mrib4_api_multicast_routing_unset_sdkapi (struct smiclient_globals * azg, u_int32_t vrId, char * vrfName)**

This function stops the L3 IPv4 multicast routing on the router through the MRIB process. smi_mrib4_api_multicast_routing_unset

Parameters:

- ← *azg* Pointer to the SMI client global structure
- ← *vrId* Virtual router id <1-32>
- ← *vrfName* VPN routing/forwarding instance name

Returns:

MRIB_API_SET_SUCCESS on success, otherwise one of the following error codes

- MRIB_API_SET_ERR_WRONG_VR
- MRIB_API_SET_ERR_WRONG_VRF

4.1.2.9 int smi_mrib4_api_rt_limit_set (struct smiclient_globals * *azg*, u_int32_t *vrId*, vrf_id_t *vrfId*, u_int32_t *routeLimit*)

This function sets the limit of the multicast route entries in the MRIB/MFIB. smi_mrib4_api_rt_limit_set

Parameters:

- ← *azg* Pointer to the SMI client global structure
- ← *vrId* Virtual router id <1-32>
- ← *vrfId* VPN routing/forwarding instance Id
- ← *rtLimit* Route-limit number. This is the number of multicast routes that can be added to a multicast routing table <1-2147483647>

Returns:

MRIB_API_SET_SUCCESS on success, otherwise one of the following error codes
 MRIB_API_SET_ERR_WRONG_VR
 MRIB_API_SET_ERR_WRONG_VRF
 MRIB_API_SET_ERR_RT_LIMIT_EXCEED_RTS

4.1.2.10 int smi_mrib4_api_rt_limit_thresh_set_sdkapi (struct smiclient_globals * *azg*, u_int32_t *vrId*, char * *vrfName*, u_int32_t *routeLimit*, u_int32_t *routeThresh*)

This function sets the threshold of the route in the multicast route entries in the MRIB/MFIB. smi_mrib4_api_rt_limit_thresh_set

Parameters:

- ← *azg* Pointer to the SMI client global structure
- ← *vrId* Virtual router id <1-32>
- ← *vrfName* VPN routing/forwarding instance Name
- ← *rtLimit* Route-limit number. This is the number of multicast routes that can be added to a multicast routing table <1-2147483647>
- ← *rtThresh* Threshold value at which to generate a warning message <1-2147483647>

Returns:

MRIB_API_SET_SUCCESS on success, otherwise one of the following error codes
 MRIB_API_SET_ERR_WRONG_VR
 MRIB_API_SET_ERR_WRONG_VRF
 MRIB_API_SET_ERR_RT_THRESH_EXCEED_RT_LIMIT
 MRIB_API_SET_ERR_RT_LIMIT_EXCEED_RTS

4.1.2.11 `int smi_mrib4_api_rt_limit_thresh_unset_sdkapi (struct smiclient_globals * azg, u_int32_t vrId, char * vrfName)`

This function resets the threshold of the multicast route entries in the MRIB/MFIB.
`smi_mrib4_api_rt_limit_thresh_unset`

Parameters:

- ← *azg* Pointer to the SMI client global structure
- ← *vrId* Virtual router id <1-32>
- ← *vrfName* VPN routing/forwarding instance Name

Returns:

MRIB_API_SET_SUCCESS on success, otherwise one of the following error codes
 MRIB_API_SET_ERR_WRONG_VR
 MRIB_API_SET_ERR_WRONG_VRF

4.1.2.12 `int smi_mrib4_api_vif_ttl_threshold_set (struct smiclient_globals * azg, u_int32_t vrId, char * ifName, u_char timeToLive)`

This function sets the multicast forwarding Time To Live (TTL) threshold value to the interface, which filters the multicast data packet. The interface has the greater TTL.
`smi_mrib4_api_vif_ttl_threshold_set`

Parameters:

- ← *azg* Pointer to the SMI client global structure
- ← *vrId* Virtual router id <1-32>
- ← *ifName* Name of the interface
- ← *timeToLive* Time to live value <1-225>

Returns:

MRIB_API_SET_SUCCESS on success, otherwise one of the following error codes
 MRIB_API_SET_ERR_WRONG_VALUE
 MRIB_API_SET_ERR_WRONG_VRF

4.1.2.13 `int smi_mrib4_api_vif_ttl_threshold_unset (struct smiclient_globals * azg, u_int32_t vrId, char * ifName)`

This function resets the multicast TTL forwarding value to the default setting.
`smi_mrib4_api_vif_ttl_threshold_unset`

Parameters:

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

← *vrId* Virtual router id <1-32>

← *ifName* Name of the interface

Returns:

MRIB_API_SET_SUCCESS on success, otherwise one of the following error codes

MRIB_API_SET_ERR_WRONG_VALUE

MRIB_API_SET_ERR_WRONG_VRF

MRIB_API_SET_ERR_VIF_NOT_EXIST

4.1.2.14 int smi_mrib4_debug_ip_sdkapi (struct smiclient_globals * *azg*, int *vrId*, char * *vrfName*, int *debug*)

Use this function to specify the set of debug options for the IPv4 multicast. smi_mrib4_debug_ip_sdkapi

Parameters:

← *azg* Pointer to the SMI client global structure

← *vrId* Virtual router id

← *vrfName* VRF NAME. Pass Null in case of default VRF

← *debug* Pass debug flag as following:

SMI_MRIB4_DEBUG_ALL - Enable all IPv4 multicast debugging

SMI_MRIB4_DEBUG_EVENT - Enable debugging of multicast events

SMI_MRIB4_DEBUG_VIF - Enable debugging of multicast interface

SMI_MRIB4_DEBUG_MRT - Enable debugging of multicast route

SMI_MRIB4_DEBUG_STATS - Enable debugging of multicast statistics

SMI_MRIB4_DEBUG_FIB_MSG - Enable debugging of multicast FIB messages

SMI_MRIB4_DEBUG_REGISTER_MSG - Enable debugging of multicast PIM Register messages

SMI_MRIB4_DEBUG_NSM_MSG - Enable debugging of multicast NSM messages

SMI_MRIB4_DEBUG_MRIB_MSG - Enable debugging of multicast MRIB messages

SMI_MRIB4_DEBUG_MTRACE - Enable debugging of multicast traceroute

SMI_MRIB4_DEBUG_MTRACE_DETAIL - Enable detailed debugging of multicast traceroute messages

Returns:

MRIB_API_SET_SUCCESS on success, otherwise one of the following error codes

MRIB_API_SET_ERR_WRONG_VR

MRIB_API_SET_ERR_WRONG_VRF

MRIB_API_SET_ERROR

4.1.2.15 `int smi_mrib4_no_debug_ip_sdkapi (struct smiclient_globals * azg, int vrId, char * vrName, int debug)`

Use the `no` parameter with this command to disable debugging of IPv4 multicast. `smi_mrib4_no_debug_ip_sdkapi`

Parameters:

- ← *azg* Pointer to the SMI client global structure
- ← *vrId* Virtual router id
- ← *vrName* VRF NAME. Pass Null in case of default VRF
- ← *debug* Pass debug flag as following:
 - SMI_MRIB4_DEBUG_ALL - Enable all IPv4 multicast debugging
 - SMI_MRIB4_DEBUG_EVENT - Enable debugging of multicast events
 - SMI_MRIB4_DEBUG_VIF - Enable debugging of multicast interface
 - SMI_MRIB4_DEBUG_MRT - Enable debugging of multicast route
 - SMI_MRIB4_DEBUG_STATS - Enable debugging of multicast statistics
 - SMI_MRIB4_DEBUG_FIB_MSG - Enable debugging of multicast FIB messages
 - SMI_MRIB4_DEBUG_REGISTER_MSG - Enable debugging of multicast PIM Register messages
 - SMI_MRIB4_DEBUG_NSM_MSG - Enable debugging of multicast NSM messages
 - SMI_MRIB4_DEBUG_MRIB_MSG - Enable debugging of multicast MRIB messages
 - SMI_MRIB4_DEBUG_MTRACE - Enable debugging of multicast traceroute
 - SMI_MRIB4_DEBUG_MTRACE_DETAIL - Enable detailed debugging of multicast traceroute messages

Returns:

MRIB_API_SET_SUCCESS on success, otherwise one of the following error codes MRIB_API_SET_ERR_WRONG_VR
MRIB_API_SET_ERR_WRONG_VRF
MRIB_API_SET_ERROR

4.2 smi_mrib4_msg.h File Reference

Defines data structures used by MRIB4 SMI APIs. #include "pal.h"

```
#include "message.h"
#include "thread.h"
#include "network.h"
#include "log.h"
#include "tlv.h"
#include "syslog.h"
#include <sys/types.h>
#include "pal_types.h"
#include "pal_socket.h"
#include "prefix.h"
```

Data Structures

- struct [smiMRIB4AllVifList](#)
- struct [smiMRIB4AllIpMrouteList](#)
- struct [mrib4_msg_](#)
- struct [mrib4VifInfo](#)
- struct [mrib4MrouteInfo](#)
- struct [outInterface](#)

Defines

- #define **SH_IP_MRT_ALL** 0
- #define **SH_IP_MRT_DENSE** 1
- #define **SH_IP_MRT_SPARSE** 2
- #define **SMI_MRIB4_DEBUG_ALL** 0
- #define **SMI_MRIB4_DEBUG_EVENT** 1
- #define **SMI_MRIB4_DEBUG_VIF** 2
- #define **SMI_MRIB4_DEBUG_MRT** 3
- #define **SMI_MRIB4_DEBUG_STATS** 4
- #define **SMI_MRIB4_DEBUG_FIB_MSG** 5
- #define **SMI_MRIB4_DEBUG_REGISTER_MSG** 6
- #define **SMI_MRIB4_DEBUG_NSM_MSG** 7
- #define **SMI_MRIB4_DEBUG_MRIB_MSG** 8
- #define **SMI_MRIB4_DEBUG_MTRACE** 9
- #define **SMI_MRIB4_DEBUG_MTRACE_DETAIL** 10
- #define **SMI_MRIB4_CTYPE_VR_ID** 0
- #define **SMI_MRIB4_CTYPE_VRF_ID** 1
- #define **SMI_MRIB4_CTYPE_RT_LIMIT** 2

- #define SMI_MRIB4_CTYPE_RT_THRESH 3
- #define SMI_MRIB4_CTYPE_IFNAME 4
- #define SMI_MRIB4_CTYPE_TTL 5
- #define SMI_MRIB4_CTYPE_GRP 6
- #define SMI_MRIB4_CTYPE_SRC 7
- #define SMI_MRIB4_CTYPE_CLI_MODE 8
- #define SMI_MRIB4_CTYPE_MRIB4ALLVIFLIST 9
- #define SMI_MRIB4_CTYPE_MRIB4ALLIPMROUTELIST 10
- #define SMI_MRIB4_CTYPE_MRT_FILTER 11
- #define SMI_MRIB4_CTYPE_ADDR 12
- #define SMI_MRIB4_CTYPE_SRC_ADDR 13
- #define SMI_MRIB4_CTYPE_GRP_ADDR 14
- #define SMI_MRIB4_CTYPE_VRF_NAME 15
- #define SMI_MRIB4_CTYPE_DEBUG 16
- #define SMI_MRIB4_CTYPE_IFINDEX 17
- #define SMI_MRIB4_CTYPE_TTL_VAL 18
- #define SMI_MRIB4_CTYPE_RATELIMIT_VAL 19
- #define SMI_MRIB4_CTYPE_INMCAST_VAL 20
- #define SMI_MRIB4_CTYPE_OUTMCAST_VAL 21
- #define SMI_MRIB4_CTYPE_STATE_VAL 22
- #define SMI_MRIB4_CTYPE_UPTIME_VAL 23
- #define SMI_MRIB4_CTYPE_EXPIRYTIME_VAL 24
- #define SMI_MRIB4_CTYPE_CLOSEST_VAL 25
- #define SMI_MRIB4_CTYPE_PROTOCOL_VAL 26
- #define SMI_MRIB4_CTYPE_TIMESTAMP_VAL 27
- #define SMI_MRIB4_CTYPE_PKTS_VAL 28
- #define SMI_MRIB4_CTYPE_DIFFINIPACKETS_VAL 29
- #define SMI_MRIB4_CTYPE_INIFINDEX_VAL 30
- #define SMI_MRIB4_CTYPE_EXTENDED_1 31
- #define SMI_MRIB4_CTYPE_OCTETS_VAL 0
- #define MRIB_VRF_RT_LIMIT_CUSTOM_DEFAULT 4000
- #define MRIB_VRF_RT_THRESHOLD_CUSTOM_DEFAULT 4000
- #define MRIB_MRT_FLAG_STAT_IMM MRIB_MSG_MRT_STAT_-
IMMEDIATE
- #define MRIB_MRT_FLAG_STAT_TIMED MRIB_MSG_MRT_STAT_-
TIMED
- #define MRIB_MRT_FLAG_FIB (1 << 2)
- #define MRIB_MRT_FLAG_OPERATION_PENDING (1 << 3)

Typedefs

- typedef struct [mrrib4_msg](#) mrrib4_msg

Functions

- int **smi_parse_mrib4** (u_char **pnt, u_int16_t *size, struct smi_msg_header *header, void *arg, SMI_CALLBACK callback)
- int **smi_encode_mrib4** (u_char **pnt, u_int16_t *size, [mrib4_msg](#) *msg)
- int **smi_decode_mrib4** (u_char **pnt, u_int16_t *size, [mrib4_msg](#) *msg)

4.2.1 Detailed Description

Defines data structures used by MRIB4 SMI APIs.

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