

**ZebOS-XP VLAN Classifier SMI Reference**  
IP Infusion Inc.

Generated by Doxygen 1.6.1

Wed Dec 16 12:33:28 2015



# Contents

<b>1</b>	<b>Data Structure Index</b>	<b>1</b>
1.1	Data Structures . . . . .	1
<b>2</b>	<b>File Index</b>	<b>3</b>
2.1	File List . . . . .	3
<b>3</b>	<b>Data Structure Documentation</b>	<b>5</b>
3.1	vclassCommonList Struct Reference . . . . .	5
3.2	vclassGroup Struct Reference . . . . .	6
3.3	vclassGroupIf Struct Reference . . . . .	7
3.4	vclassIfGroup Struct Reference . . . . .	8
3.5	vclassRule Struct Reference . . . . .	9
3.6	vlanclassifier_msg_ Struct Reference . . . . .	10
<b>4</b>	<b>File Documentation</b>	<b>11</b>
4.1	smi_vlanclassifier.h File Reference . . . . .	11
4.1.1	Detailed Description . . . . .	13
4.1.2	Function Documentation . . . . .	13
4.1.2.1	smi_nsm_add_vlan_classifier_group_per_if . . . . .	13
4.1.2.2	smi_nsm_add_vlan_classifier_ip_rule . . . . .	14
4.1.2.3	smi_nsm_add_vlan_classifier_l2protocol_rule . . . . .	14
4.1.2.4	smi_nsm_add_vlan_classifier_mac_rule . . . . .	15
4.1.2.5	smi_nsm_bind_vlan_classifier_rule_to_group . . . . .	15
4.1.2.6	smi_nsm_delete_vlan_classifier_group . . . . .	15
4.1.2.7	smi_nsm_delete_vlan_classifier_group_per_if . . . . .	16
4.1.2.8	smi_nsm_delete_vlan_classifier_rule . . . . .	16

4.1.2.9	<a href="#">smi_nsm_show_vlan_classifier_group</a>	17
4.1.2.10	<a href="#">smi_nsm_show_vlan_classifier_group_all</a>	17
4.1.2.11	<a href="#">smi_nsm_show_vlan_classifier_group_if</a>	17
4.1.2.12	<a href="#">smi_nsm_show_vlan_classifier_if_group</a>	18
4.1.2.13	<a href="#">smi_nsm_show_vlan_classifier_if_group_all</a>	18
4.1.2.14	<a href="#">smi_nsm_show_vlan_classifier_rule</a>	19
4.1.2.15	<a href="#">smi_nsm_show_vlan_classifier_rule_all</a>	19
4.1.2.16	<a href="#">smi_nsm_unbind_vlan_classifier_rule_from_group</a>	20
4.2	<a href="#">smi_vlanclassifier_msg.h File Reference</a>	21
4.2.1	<a href="#">Detailed Description</a>	22

# Chapter 1

## Data Structure Index

### 1.1 Data Structures

Here are the data structures with brief descriptions:

<a href="#">vclassCommonList</a>	5
<a href="#">vclassGroup</a>	6
<a href="#">vclassGroupIf</a>	7
<a href="#">vclassIfGroup</a>	8
<a href="#">vclassRule</a>	9
<a href="#">vlanclassifier_msg_</a>	10



## Chapter 2

# File Index

### 2.1 File List

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

<a href="#">smi_vlanclassifier.h</a> (Provides API for managing VLAN classification ) . . .	11
<a href="#">smi_vlanclassifier_msg.h</a> (Defines data structures used by VLAN Classifier SMI APIs ) . . . . .	21





## Chapter 3

# Data Structure Documentation

### 3.1 vclassCommonList Struct Reference

#### Data Fields

- int **have\_more**
- int **more\_count**
- struct list \* **vclassList**

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

- [smi\\_vlanclassifier\\_msg.h](#)

## 3.2 vclassGroup Struct Reference

### Data Fields

- `u_int8_t groupId`
- `u_int16_t groupVid`
- `u_int8_t ruleCount`
- `u_int8_t ruleId` [NSM\_VLAN\_RULE\_ID\_MAX]
- `u_int8_t ifCount`
- `char ifName` [128][8]

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

- [smi\\_vlanclassifier\\_msg.h](#)

## 3.3 vclassGroupIf Struct Reference

### Data Fields

- u\_int16\_t **groupVid**
- u\_int8\_t **groupId**

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

- [smi\\_vlanclassifier\\_msg.h](#)

### 3.4 vclassIfGroup Struct Reference

#### Data Fields

- `u_int8_t groupId`
- `u_int8_t ifCount`
- `char ifName [128][8]`

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

- [smi\\_vlanclassifier\\_msg.h](#)

## 3.5 vclassRule Struct Reference

### Data Fields

- `u_int8_t ruleId`
- `u_int16_t vlanId`
- `u_int8_t vclassType`
- `u_int16_t l2Protocol`
- `u_int32_t encapType`
- unsigned char `srcMac` [16]
- unsigned char `srcIp` [20]

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

- [smi\\_vlanclassifier\\_msg.h](#)

### 3.6 vlanclassifier\_msg\_ Struct Reference

#### Data Fields

- smi\_cindex\_t **cindex\_0**
- u\_int32\_t **vr\_id**
- u\_int32\_t **rule\_id**
- u\_int32\_t **group\_id**
- char **smac** [255]
- u\_int16\_t **vlan\_id**
- char **sip** [255]
- u\_int16\_t **l2protocol**
- u\_int32\_t **encapsulation**
- char **ifname** [255]
- struct [vclassCommonList](#) **vclassData**

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

- [smi\\_vlanclassifier\\_msg.h](#)

# Chapter 4

## File Documentation

### 4.1 smi\_vlanclassifier.h File Reference

Provides API for managing VLAN classification. `#include "smi_client.h"`  
`#include "smi_vlanclassifier_msg.h"`

#### Functions

- `int smi_client_read_sync_vlanclassifier_msg` (struct smi\_client\_handler \*ach, int msgtype, void \*getmsg)
- `int smi_client_create_n_send_vlanclassifier_msg` (struct smi\_client\_handler \*async, int vrid, [vlanclassifier\\_msg](#) \*msg, int optype)
- `s_int32_t smi_nsm_delete_vlan_classifier_rule` (struct smiclient\_globals \*azg, u\_int32\_t vr\_id, u\_int32\_t rule\_id)

*Deletes the given VLAN classifier rule at switch level.*

- `s_int32_t smi_nsm_delete_vlan_classifier_group` (struct smiclient\_globals \*azg, u\_int32\_t vr\_id, u\_int32\_t group\_id)

*Deletes the VLAN classifier group at switch level. A Protocol Group designates a group of protocols that will be associated with one member of the VLAN ID Set of a Port.*

- `s_int32_t smi_nsm_add_vlan_classifier_mac_rule` (struct smiclient\_globals \*azg, u\_int32\_t vr\_id, char \*smac, u\_int32\_t rule\_id, u\_int16\_t vlan\_id)

*Adds an VLAN classifier rule based on Source MAC value.*

- `s_int32_t smi_nsm_add_vlan_classifier_ip_rule` (struct smiclient\_globals \*azg, u\_int32\_t vr\_id, char \*sip, u\_int32\_t rule\_id, u\_int16\_t vlan\_id)

*Adds an VLAN classifier rule based on Source IP value.*

- s\_int32\_t [smi\\_nsm\\_add\\_vlan\\_classifier\\_l2protocol\\_rule](#) (struct smiclient\_globals \*azg, u\_int32\_t vr\_id, u\_int16\_t l2protocol, u\_int32\_t encapsulation, u\_int32\_t rule\_id, u\_int16\_t vlan\_id)

*Adds an VLAN classifier rule based on Layer2 protocol type.*

- s\_int32\_t [smi\\_nsm\\_bind\\_vlan\\_classifier\\_rule\\_to\\_group](#) (struct smiclient\_globals \*azg, u\_int32\_t vr\_id, char \*ifname, u\_int32\_t rule\_id, u\_int32\_t group\_id)

*Attaches the given VLAN classifier rule to a group.*

- s\_int32\_t [smi\\_nsm\\_unbind\\_vlan\\_classifier\\_rule\\_from\\_group](#) (struct smiclient\_globals \*azg, u\_int32\_t vr\_id, char \*ifname, u\_int32\_t rule\_id, u\_int32\_t group\_id)

*Detaches the given VLAN classifier rule to a group.*

- s\_int32\_t [smi\\_nsm\\_add\\_vlan\\_classifier\\_group\\_per\\_if](#) (struct smiclient\_globals \*azg, u\_int32\_t vr\_id, char \*ifname, u\_int32\_t group\_id, u\_int16\_t vlan\_id)

*Activate the given VLAN classifier group and attaches the rule, at interface level. A Protocol Group designates a group of protocols that will be associated with one member of the VLAN ID Set of a Port.*

- s\_int32\_t [smi\\_nsm\\_delete\\_vlan\\_classifier\\_group\\_per\\_if](#) (struct smiclient\_globals \*azg, u\_int32\_t vr\_id, char \*ifname, u\_int32\_t group\_id)

*Deletes the given VLAN classifier group and deletes its attached rules, at interface level.*

- int [\\_merge\\_vclass\\_rule\\_list](#) (struct list \*listDest, struct list \*listSrc)
- int [\\_merge\\_vclass\\_group\\_list](#) (struct list \*listDest, struct list \*listSrc)
- int [\\_merge\\_vclass\\_if\\_group\\_list](#) (struct list \*listDest, struct list \*listSrc)
- int [\\_merge\\_vclass\\_group\\_if\\_list](#) (struct list \*listDest, struct list \*listSrc)
- s\_int32\_t [smi\\_nsm\\_show\\_vlan\\_classifier\\_rule](#) (struct smiclient\_globals \*azg, u\_int32\_t vr\_id, u\_int32\_t rule\_id, struct list \*commList, int(\*funPointer)(struct list \*commList))

*Shows the given VLAN classifier rule's information.*

- s\_int32\_t [smi\\_nsm\\_show\\_vlan\\_classifier\\_rule\\_all](#) (struct smiclient\_globals \*azg, u\_int32\_t vr\_id, struct list \*commList, int(\*funPointer)(struct list \*commList))

*Shows the VLAN classifier rule information of all rules.*

- s\_int32\_t [smi\\_nsm\\_show\\_vlan\\_classifier\\_group](#) (struct smiclient\_globals \*azg, u\_int32\_t vr\_id, u\_int32\_t group\_id, struct list \*commList, int(\*funPointer)(struct list \*commList))

*Shows the given VLAN classifier group's information.*

- s\_int32\_t [smi\\_nsm\\_show\\_vlan\\_classifier\\_group\\_all](#) (struct smiclient\_globals \*azg, u\_int32\_t vr\_id, struct list \*commList, int(\*funPointer)(struct list \*commList))



*Shows VLAN classifier group information of all groups.*

- s\_int32\_t [smi\\_nsm\\_show\\_vlan\\_classifier\\_if\\_group](#) (struct smiclient\_globals \*azg, u\_int32\_t vr\_id, u\_int32\_t group\_id, struct list \*commList, int(\*funPointer)(struct list \*commList))

*Shows the given VLAN classifier group's information.*

- s\_int32\_t [smi\\_nsm\\_show\\_vlan\\_classifier\\_if\\_group\\_all](#) (struct smiclient\_globals \*azg, u\_int32\_t vr\_id, struct list \*commList, int(\*funPointer)(struct list \*commList))

*Shows VLAN classifier group information of all groups.*

- s\_int32\_t [smi\\_nsm\\_show\\_vlan\\_classifier\\_group\\_if](#) (struct smiclient\_globals \*azg, u\_int32\_t vr\_id, char \*ifname, struct list \*commList, int(\*funPointer)(struct list \*commList))

*Shows the VLAN classifier groups on the given interface.*

### 4.1.1 Detailed Description

Provides API for managing VLAN classification. 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

### 4.1.2 Function Documentation

#### 4.1.2.1 s\_int32\_t smi\_nsm\_add\_vlan\_classifier\_group\_per\_if (struct smiclient\_globals \* azg, u\_int32\_t vr\_id, char \* ifname, u\_int32\_t group\_id, u\_int16\_t vlan\_id)

Activate the given VLAN classifier group and attaches the rule, at interface level. A Protocol Group designates a group of protocols that will be associated with one member of the VLAN ID Set of a Port. smi\_nsm\_add\_vlan\_classifier\_group\_per\_if

#### Parameters:

- ← **azg** Pointer to the SMI client global structure
- ← **vr\_id** Virtual Router ID <0-255>
- ← **ifname** Interface name
- ← **group\_id** Group number <1-16>
- ← **vlan\_id** [Optional]VLAN ID <2-4094> or 0

#### Returns:

- 0 on success, otherwise one of the following error codes
- RESULT\_ERROR
- IPI\_ERR\_NO\_GROUP\_EXIST

NSM\_VLAN\_INVALID\_VLAN\_ID  
 IPI\_ERR\_VLAN\_ON\_RULES\_FAIL  
 IPI\_ERR\_NO\_VLAN\_ON\_RULES

#### 4.1.2.2 **s\_int32\_t smi\_nsm\_add\_vlan\_classifier\_ip\_rule** (struct smiclient\_globals \* *azg*, u\_int32\_t *vr\_id*, char \* *sip*, u\_int32\_t *rule\_id*, u\_int16\_t *vlan\_id*)

Adds an VLAN classifier rule based on Source IP value. smi\_nsm\_add\_vlan\_classifier\_ip\_rule

##### Parameters:

- ← *azg* Pointer to the SMI client global structure
- ← *vr\_id* Virtual Router ID <0-255>
- ← *sip* SIP addr in A.B.C.D/M string format
- ← *rule\_id* Rule number <1-256>
- ← *vlan\_id* VLAN ID <2-4094>

##### Returns:

0 on success, otherwise one of the following error codes  
 RESULT\_ERROR  
 IPI\_ERR\_RULE\_ID\_EXIST  
 IPI\_ERR\_SAME\_RULE

#### 4.1.2.3 **s\_int32\_t smi\_nsm\_add\_vlan\_classifier\_l2protocol\_rule** (struct smiclient\_globals \* *azg*, u\_int32\_t *vr\_id*, u\_int16\_t *l2protocol*, u\_int32\_t *encapsulation*, u\_int32\_t *rule\_id*, u\_int16\_t *vlan\_id*)

Adds an VLAN classifier rule based on Layer2 protocol type. smi\_nsm\_add\_vlan\_classifier\_l2protocol\_rule

##### Parameters:

- ← *azg* Pointer to the SMI client global structure
- ← *vr\_id* Virtual Router ID <0-255>
- ← *l2protocol* L2 protocol value <0-65535>
- ← *encapsulation* L2 encapsulation type 0x00020000 - Ethernet v2 0x00020001 - No SNAP LLC 0x00020002 - Snap LLC
- ← *rule\_id* Rule number <1-256>
- ← *vlan\_id* [Optional]VLAN ID <2-4094> or 0

##### Returns:

0 on success, otherwise one of the following error codes  
 RESULT\_ERROR  
 IPI\_ERR\_RULE\_ID\_EXIST  
 IPI\_ERR\_SAME\_RULE

#### 4.1.2.4 s\_int32\_t smi\_nsm\_add\_vlan\_classifier\_mac\_rule (struct smiclient\_globals \* azg, u\_int32\_t vr\_id, char \* smac, u\_int32\_t rule\_id, u\_int16\_t vlan\_id)

Adds an VLAN classifier rule based on Source MAC value. smi\_nsm\_add\_vlan\_classifier\_mac\_rule

##### Parameters:

- ← *azg* Pointer to the SMI client global structure
- ← *vr\_id* Virtual Router ID <0-255>
- ← *smac* SMAC addr in HHHH.HHHH.HHHH string format
- ← *rule\_id* Rule number <1-256>
- ← *vlan\_id* VLAN ID <2-4094>

##### Returns:

0 on success, otherwise one of the following error codes  
 RESULT\_ERROR  
 IPI\_ERR\_RULE\_ID\_EXIST  
 IPI\_ERR\_SAME\_RULE

#### 4.1.2.5 s\_int32\_t smi\_nsm\_bind\_vlan\_classifier\_rule\_to\_group (struct smiclient\_globals \* azg, u\_int32\_t vr\_id, char \* ifname, u\_int32\_t rule\_id, u\_int32\_t group\_id)

Attaches the given VLAN classifier rule to a group. smi\_nsm\_bind\_vlan\_classifier\_rule\_to\_group

##### Parameters:

- ← *azg* Pointer to the SMI client global structure
- ← *vr\_id* Virtual Router ID <0-255>
- ← *ifname* Interface name
- ← *rule\_id* Rule number <1-256>
- ← *group\_id* Group ID <1-16>

##### Returns:

0 on success, otherwise one of the following error codes  
 RESULT\_ERROR

#### 4.1.2.6 s\_int32\_t smi\_nsm\_delete\_vlan\_classifier\_group (struct smiclient\_globals \* azg, u\_int32\_t vr\_id, u\_int32\_t group\_id)

Deletes the VLAN classifier group at switch level. A Protocol Group designates a group of protocols that will be associated with one member of the VLAN ID Set of a Port. smi\_nsm\_delete\_vlan\_classifier\_group

**Parameters:**

- ← *azg* Pointer to the SMI client global structure
- ← *vr\_id* Virtual Router ID <0-255>
- ← *group\_id* Group number <1-16>

**Returns:**

0 on success, otherwise one of the following error codes  
 RESULT\_ERROR

#### 4.1.2.7 `s_int32_t smi_nsm_delete_vlan_classifier_group_per_if` (struct `smiclient_globals *azg`, `u_int32_t vr_id`, `char *ifname`, `u_int32_t group_id`)

Deletes the given VLAN classifier group and deletes its attached rules, at interface level. `smi_nsm_delete_vlan_classifier_group_per_if`

**Parameters:**

- ← *azg* Pointer to the SMI client global structure
- ← *vr\_id* Virtual Router ID <0-255>
- ← *ifname* Interface name
- ← *group\_id* Group number <1-16>

**Returns:**

0 on success, otherwise one of the following error codes  
 RESULT\_ERROR

#### 4.1.2.8 `s_int32_t smi_nsm_delete_vlan_classifier_rule` (struct `smiclient_globals *azg`, `u_int32_t vr_id`, `u_int32_t rule_id`)

Deletes the given VLAN classifier rule at switch level. `smi_nsm_delete_vlan_classifier_rule`

**Parameters:**

- ← *azg* Pointer to the SMI client global structure
- ← *vr\_id* Virtual Router ID <0-255>
- ← *rule\_id* Rule number <1-256>

**Returns:**

0 on success, otherwise one of the following error codes  
 RESULT\_ERROR

**4.1.2.9** `s_int32_t smi_nsm_show_vlan_classifier_group (struct smiclient_globals * azg, u_int32_t vr_id, u_int32_t group_id, struct list * commList, int (*)(struct list *commList) funPointer)`

Shows the given VLAN classifier group's information. `smi_nsm_show_vlan_classifier_group`

**Parameters:**

- ← *azg* Pointer to the SMI client global structure
- ← *vr\_id* Virtual Router ID <0-255>
- ← *group\_id* Group number <1-16>
- *commList* Pointer to linked list structure [vclassGroup](#)
- ← *funPointer* Callback function pointer

**Returns:**

0 on success, otherwise one of the following error codes  
RESULT\_ERROR

**4.1.2.10** `s_int32_t smi_nsm_show_vlan_classifier_group_all (struct smiclient_globals * azg, u_int32_t vr_id, struct list * commList, int (*)(struct list *commList) funPointer)`

Shows VLAN classifier group information of all groups. `smi_nsm_show_vlan_classifier_group_all`

**Parameters:**

- ← *azg* Pointer to the SMI client global structure
- ← *vr\_id* Virtual Router ID <0-255>
- *commList* Pointer to linked list structure [vclassGroup](#)
- ← *funPointer* Callback function pointer

**Returns:**

0 on success, otherwise one of the following error codes  
RESULT\_ERROR

**4.1.2.11** `s_int32_t smi_nsm_show_vlan_classifier_group_if (struct smiclient_globals * azg, u_int32_t vr_id, char * ifname, struct list * commList, int (*)(struct list *commList) funPointer)`

Shows the VLAN classifier groups on the given interface. `smi_nsm_show_vlan_classifier_group_if`

**Parameters:**

- ← *azg* Pointer to the SMI client global structure
- ← *vr\_id* Virtual Router ID <0-255>
- ← *ifname* Interface name
- *commList* Pointer to linked list structure [vclassGroupIf](#)
- ← *funPointer* Callback function pointer

**Returns:**

0 on success, otherwise one of the following error codes  
 RESULT\_ERROR

#### 4.1.2.12 `s_int32_t smi_nsm_show_vlan_classifier_if_group (struct smiclient_globals * azg, u_int32_t vr_id, u_int32_t group_id, struct list * commList, int(*) (struct list * commList) funPointer)`

Shows the given VLAN classifier group's information. `smi_nsm_show_vlan_classifier_if_group`

**Parameters:**

- ← *azg* Pointer to the SMI client global structure
- ← *vr\_id* Virtual Router ID <0-255>
- ← *group\_id* Group number <1-16>
- *commList* Pointer to linked list structure [vclassIfGroup](#)
- ← *funPointer* Callback function pointer

**Returns:**

0 on success, otherwise one of the following error codes  
 RESULT\_ERROR

#### 4.1.2.13 `s_int32_t smi_nsm_show_vlan_classifier_if_group_all (struct smiclient_globals * azg, u_int32_t vr_id, struct list * commList, int(*) (struct list * commList) funPointer)`

Shows VLAN classifier group information of all groups. `smi_nsm_show_vlan_classifier_if_group_all`

**Parameters:**

- ← *azg* Pointer to the SMI client global structure
- ← *vr\_id* Virtual Router ID <0-255>
- *commList* Pointer to linked list structure [vclassIfGroup](#)
- ← *funPointer* Callback function pointer

**Returns:**

0 on success, otherwise one of the following error codes  
 RESULT\_ERROR

**4.1.2.14** `s_int32_t smi_nsm_show_vlan_classifier_rule (struct smiclient_globals * azg, u_int32_t vr_id, u_int32_t rule_id, struct list * commList, int(*) (struct list * commList) funPointer)`

Shows the given VLAN classifier rule's information. `smi_nsm_show_vlan_classifier_rule`

**Parameters:**

- ← *azg* Pointer to the SMI client global structure
- ← *vr\_id* Virtual Router ID <0-255>
- ← *rule\_id* Rule number <1-256>
- *commList* Pointer to linked list structure [vclassRule](#)
- ← *funPointer* Callback function pointer

**Returns:**

0 on success, otherwise one of the following error codes  
 RESULT\_ERROR

**4.1.2.15** `s_int32_t smi_nsm_show_vlan_classifier_rule_all (struct smiclient_globals * azg, u_int32_t vr_id, struct list * commList, int(*) (struct list * commList) funPointer)`

Shows the VLAN classifier rule information of all rules. `smi_nsm_show_vlan_classifier_rule_all`

**Parameters:**

- ← *azg* Pointer to the SMI client global structure
- ← *vr\_id* Virtual Router ID <0-255>
- *commList* Pointer to linked list structure [vclassRule](#)
- ← *funPointer* Callback function pointer

**Returns:**

0 on success, otherwise one of the following error codes  
 RESULT\_ERROR

**4.1.2.16** `s_int32_t smi_nsm_unbind_vlan_classifier_rule_from_group (struct smiclient_globals * azg, u_int32_t vr_id, char * ifname, u_int32_t rule_id, u_int32_t group_id)`

Detaches the given VLAN classifier rule to a group. `smi_nsm_unbind_vlan_classifier_rule_from_group`

**Parameters:**

- ← *azg* Pointer to the SMI client global structure
- ← *vr\_id* Virtual Router ID <0-255>
- ← *ifname* Interface name
- ← *rule\_id* Rule number <1-256>
- ← *group\_id* Group ID <1-16>

**Returns:**

0 on success, otherwise one of the following error codes  
RESULT\_ERROR



## 4.2 smi\_vlanclassifier\_msg.h File Reference

Defines data structures used by VLAN Classifier 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"
#include "lib/smi/server/smi_server.h"
```

### Data Structures

- struct [vclassRule](#)
- struct [vclassGroup](#)
- struct [vclassIfGroup](#)
- struct [vclassGroupIf](#)
- struct [vclassCommonList](#)
- struct [vlanclassifier\\_msg\\_](#)

### Defines

- #define NSM\_VLAN\_RULE\_ID\_MAX 256
- #define HAL\_VLAN\_CLASSIFIER\_MAC 1
- #define HAL\_VLAN\_CLASSIFIER\_PROTOCOL 2
- #define HAL\_VLAN\_CLASSIFIER\_IPV4 4
- #define SMI\_VLANCLASSIFIER\_CTYPE\_VR\_ID 0
- #define SMI\_VLANCLASSIFIER\_CTYPE\_RULE\_ID 1
- #define SMI\_VLANCLASSIFIER\_CTYPE\_GROUP\_ID 2
- #define SMI\_VLANCLASSIFIER\_CTYPE\_SMAC 3
- #define SMI\_VLANCLASSIFIER\_CTYPE\_VLAN\_ID 4
- #define SMI\_VLANCLASSIFIER\_CTYPE\_SIP 5
- #define SMI\_VLANCLASSIFIER\_CTYPE\_L2PROTOCOL 6
- #define SMI\_VLANCLASSIFIER\_CTYPE\_ENCAPSULATION 7
- #define SMI\_VLANCLASSIFIER\_CTYPE\_IFNAME 8
- #define SMI\_VLANCLASSIFIER\_CTYPE\_RULE 9
- #define SMI\_VLANCLASSIFIER\_CTYPE\_GROUP 10

- `#define SMI_VLANCLASSIFIER_CTYPE_IF_GROUP 11`
- `#define SMI_VLANCLASSIFIER_CTYPE_GROUP_IF 12`
- `#define SMI_VLANCLASSIFIER_CTYPE_EXTENDED_1 31`

## Typedefs

- typedef struct [vlanclassifier\\_msg](#) `vlanclassifier_msg`

## Functions

- int **smi\_parse\_vlanclassifier** (u\_char \*\*pnt, u\_int16\_t \*size, struct smi\_msg\_header \*header, void \*arg, SMI\_CALLBACK callback)
- int **smi\_encode\_vlanclassifier** (u\_char \*\*pnt, u\_int16\_t \*size, [vlanclassifier\\_msg](#) \*msg)
- int **smi\_decode\_vlanclassifier** (u\_char \*\*pnt, u\_int16\_t \*size, [vlanclassifier\\_msg](#) \*msg)

### 4.2.1 Detailed Description

Defines data structures used by VLAN Classifier SMI APIs.

# Index

smi\_nsm\_add\_vlan\_classifier\_group\_per\_if  
    smi\_vlanclassifier.h, [13](#)  
smi\_nsm\_add\_vlan\_classifier\_ip\_rule  
    smi\_vlanclassifier.h, [14](#)  
smi\_nsm\_add\_vlan\_classifier\_l2protocol\_rule  
    smi\_vlanclassifier.h, [14](#)  
smi\_nsm\_add\_vlan\_classifier\_mac\_rule  
    smi\_vlanclassifier.h, [14](#)  
smi\_nsm\_bind\_vlan\_classifier\_rule\_to\_group  
    smi\_vlanclassifier.h, [15](#)  
smi\_nsm\_delete\_vlan\_classifier\_group  
    smi\_vlanclassifier.h, [15](#)  
smi\_nsm\_delete\_vlan\_classifier\_group\_per\_if  
    smi\_vlanclassifier.h, [16](#)  
smi\_nsm\_delete\_vlan\_classifier\_rule  
    smi\_vlanclassifier.h, [16](#)  
smi\_nsm\_show\_vlan\_classifier\_group  
    smi\_vlanclassifier.h, [16](#)  
smi\_nsm\_show\_vlan\_classifier\_group\_all  
    smi\_vlanclassifier.h, [17](#)  
smi\_nsm\_show\_vlan\_classifier\_group\_if  
    smi\_vlanclassifier.h, [17](#)  
smi\_nsm\_show\_vlan\_classifier\_if\_group  
    smi\_vlanclassifier.h, [18](#)  
smi\_nsm\_show\_vlan\_classifier\_if\_group\_all  
    smi\_vlanclassifier.h, [18](#)  
smi\_nsm\_show\_vlan\_classifier\_rule  
    smi\_vlanclassifier.h, [19](#)  
smi\_nsm\_show\_vlan\_classifier\_rule\_all  
    smi\_vlanclassifier.h, [19](#)  
smi\_nsm\_unbind\_vlan\_classifier\_rule\_from\_group  
    smi\_vlanclassifier.h, [19](#)  
smi\_vlanclassifier.h, [11](#)  
smi\_nsm\_add\_vlan\_classifier\_group\_per\_if, [13](#)  
smi\_nsm\_add\_vlan\_classifier\_ip\_rule, [14](#)  
smi\_nsm\_add\_vlan\_classifier\_l2protocol\_rule, [14](#)  
smi\_nsm\_add\_vlan\_classifier\_mac\_rule, [14](#)  
smi\_nsm\_bind\_vlan\_classifier\_rule\_to\_group, [15](#)  
smi\_nsm\_delete\_vlan\_classifier\_group\_per\_if, [16](#)  
smi\_nsm\_delete\_vlan\_classifier\_rule, [16](#)  
smi\_nsm\_show\_vlan\_classifier\_group, [16](#)  
smi\_nsm\_show\_vlan\_classifier\_group\_all, [17](#)  
smi\_nsm\_show\_vlan\_classifier\_group\_if, [17](#)  
smi\_nsm\_show\_vlan\_classifier\_if\_group, [18](#)  
smi\_nsm\_show\_vlan\_classifier\_if\_group\_all, [18](#)  
smi\_nsm\_show\_vlan\_classifier\_rule, [19](#)  
smi\_nsm\_show\_vlan\_classifier\_rule\_all, [19](#)  
smi\_nsm\_unbind\_vlan\_classifier\_rule\_from\_group, [19](#)  
smi\_vlanclassifier\_msg.h, [21](#)  
vclassCommonList, [5](#)  
vclassGroup, [6](#)  
vclassGroupIf, [7](#)  
vclassIfGroup, [8](#)  
vclassRule, [9](#)  
vlanclassifier\_msg\_, [10](#)