

**ZebOS-XP Private VLAN SMI Reference**  
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Generated by Doxygen 1.6.1

Wed Dec 16 12:33:26 2015



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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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<a href="#">pvlanPrimList</a>	7
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## Chapter 2

# File Index

### 2.1 File List

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

<a href="#">smi_pvlan.h</a> (A private VLAN contains switch ports that can not communicate with each other, but can access other networks. This file provides APIs for the configuration and management of private VLANs within ZebOS ) . . . . .	9
<a href="#">smi_pvlan_msg.h</a> (Defines data structures used by Private VLAN SMI APIs )	20





## Chapter 3

# Data Structure Documentation

### 3.1 pSecondaryVlan Struct Reference

#### Data Fields

- `u_int16_t` **secondaryVid**
- `enum secondaryVlanType` **secondaryVlanType**

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

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

## 3.2 pvlan\_msg\_ Struct Reference

### Data Fields

- smi\_cindex\_t **cindex\_0**
- u\_int32\_t **vr\_id**
- char **br\_id** [255]
- u\_int16\_t **vlan\_id**
- u\_int8\_t **pvlan\_type**
- u\_int16\_t **pvid**
- char **ifname** [255]
- char **bridge\_name** [255]
- u\_int8\_t **mode**
- struct smi\_vlan\_bmp **pvid\_bmp**
- int **primaryVid**
- struct [pvlanPrimList](#) **primData**
- struct [pvlanSeconList](#) **seconData**

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

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

## 3.3 pvlanPrimList Struct Reference

### Data Fields

- int **prim\_more**
- int **prim\_count**
- struct list \* **pSeconVlanList**

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

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

### 3.4 pvlanSeconList Struct Reference

#### Data Fields

- int **secon\_more**
- int **secon\_count**
- struct list \* **pSeconVlanList**

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

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

## Chapter 4

# File Documentation

### 4.1 smi\_pvlan.h File Reference

A private VLAN contains switch ports that can not communicate with each other, but can access other networks. This file provides APIs for the configuration and management of private VLANs within ZebOS. `#include "smi_client.h"`

```
#include "smi_pvlan_msg.h"
```

#### Functions

- **int smi\_pvlan\_host\_association\_add\_validate** (struct smiclient\_globals \*azg, u\_int32\_t vrId, char \*ifName, u\_int16\_t pvlanId, u\_int16\_t svlanId)
- **int smi\_pvlan\_set\_port\_mode\_validate** (struct smiclient\_globals \*azg, u\_int32\_t vrId, char \*ifName, enum smi\_pvlan\_port\_mode portMode)
- **int smi\_pvlan\_associate\_clear\_all\_validate** (struct smiclient\_globals \*azg, u\_int32\_t vrId, char \*bridgeId, u\_int16\_t vlanId)
- **int smi\_pvlan\_associate\_remove\_validate** (struct smiclient\_globals \*azg, u\_int32\_t vrId, char \*bridgeId, u\_int16\_t pvlanId, u\_int16\_t svlanId)
- **int smi\_pvlan\_associate\_add\_validate** (struct smiclient\_globals \*azg, u\_int32\_t vrId, char \*bridgeId, u\_int16\_t pvlanId, u\_int16\_t svlanId)
- **int smi\_pvlan\_delete\_validate** (struct smiclient\_globals \*azg, u\_int32\_t vrId, char \*bridgeId, u\_int16\_t vlanId, enum smi\_pvlan\_type pvlan\_type)
- **int smi\_pvlan\_create\_validate** (struct smiclient\_globals \*azg, u\_int32\_t vrId, char \*bridgeId, u\_int16\_t vlanId, enum smi\_pvlan\_type pvlanType)
- **int smi\_pvlan\_switchport\_mapping\_add\_validate** (struct smiclient\_globals \*azg, u\_int32\_t vrId, char \*ifName, u\_int16\_t vlanId, struct smi\_vlan\_bmp \*pvlanIdBmp)
- **int smi\_pvlan\_switchport\_mapping\_remove\_validate** (struct smiclient\_globals \*azg, u\_int32\_t vrId, char \*ifName, u\_int16\_t vlanId, struct smi\_vlan\_bmp \*pvlanIdBmp)
- **int smi\_pvlan\_create** (struct smiclient\_globals \*azg, u\_int32\_t vrId, char \*bridgeId, u\_int16\_t vlanId, enum smi\_pvlan\_type pvlanType)

*Creates a private VLAN.*

- int [smi\\_pvlan\\_delete](#) (struct smiclient\_globals \*azg, u\_int32\_t vrId, char \*bridgeId, u\_int16\_t vlanId, enum smi\_pvlan\_type pvlanType)

*Deletes a private VLAN.*

- int [smi\\_pvlan\\_associate\\_add](#) (struct smiclient\_globals \*azg, u\_int32\_t vrId, char \*bridgeId, u\_int16\_t pvlanId, u\_int16\_t svlanId)

*Associates a secondary VLAN to a primary VLAN. Only one isolated VLAN can be associated to a primary VLAN. Multiple community VLAN can be associated to a primary VLAN.*

- int [smi\\_pvlan\\_associate\\_remove](#) (struct smiclient\_globals \*azg, u\_int32\_t vrId, char \*bridgeId, u\_int16\_t pvlanId, u\_int16\_t svlanId)

*Remove the associate between primary and secondary VLAN.*

- int [smi\\_pvlan\\_associate\\_clear\\_all](#) (struct smiclient\_globals \*azg, u\_int32\_t vrId, char \*bridgeId, u\_int16\_t vlanId)

*Remove association of all the secondary VLAN to primary VLAN.*

- int [smi\\_pvlan\\_set\\_port\\_mode](#) (struct smiclient\_globals \*azg, u\_int32\_t vrId, char \*ifName, enum smi\_pvlan\_port\_mode portMode)

*Set a layer 2 port as host port or promiscuous port.*

- int [smi\\_pvlan\\_get\\_port\\_mode](#) (struct smiclient\_globals \*azg, u\_int32\_t vrId, char \*ifName, enum smi\_pvlan\_port\_mode \*portMode)

*Get a layer 2 port as host port or promiscuous port.*

- int [smi\\_pvlan\\_clear\\_port\\_mode\\_validate](#) (struct smiclient\_globals \*azg, u\_int32\_t vrId, char \*ifName, enum smi\_pvlan\_port\_mode portMode)

*Remove host/promiscuous portMode configuration from a port.*

- int [smi\\_pvlan\\_clear\\_port\\_mode](#) (struct smiclient\_globals \*azg, u\_int32\_t vrId, char \*ifName, enum smi\_pvlan\_port\_mode portMode)

- int [smi\\_pvlan\\_host\\_association\\_add](#) (struct smiclient\_globals \*azg, u\_int32\_t vrId, char \*ifName, u\_int16\_t pvlanId, u\_int16\_t svlanId)

*Associate a primary VLAN and a secondary VLAN to a host port.*

- int [smi\\_pvlan\\_host\\_association\\_remove\\_validate](#) (struct smiclient\_globals \*azg, u\_int32\_t vrId, char \*ifName)

*Remove primary and secondary VLAN association to a host port.*

- int [smi\\_pvlan\\_host\\_association\\_remove](#) (struct smiclient\_globals \*azg, u\_int32\_t vrId, char \*ifName)

- int [smi\\_pvlan\\_host\\_association\\_get](#) (struct smiclient\_globals \*azg, u\_int32\_t vrId, char \*ifName, u\_int16\_t pvlanId, u\_int16\_t \*svlanId)

- int [smi\\_pvlan\\_switchport\\_mapping\\_add](#) (struct smiclient\_globals \*azg, u\_int32\_t vrid, char \*ifName, u\_int16\_t vlanId, struct smi\_vlan\_bmp \*pvlanIdBmp)  
*Associate a primary VLAN and a set of secondary VLANs to a promiscuous port.*
- int [smi\\_pvlan\\_switchport\\_mapping\\_remove](#) (struct smiclient\_globals \*azg, u\_int32\_t vrid, char \*ifName, u\_int16\_t vlanId, struct smi\_vlan\_bmp \*pvlanIdBmp)  
*Remove the association of a set of secondary VLANs to a primary VLAN on a promiscuous port.*
- int [smi\\_pvlan\\_switchport\\_mapping\\_remove\\_all](#) (struct smiclient\_globals \*azg, u\_int32\_t vrid, char \*ifName)  
*Remove all the association of secondary VLANs to primary VLAN for a promiscuous port.*
- int [smi\\_nsm\\_show\\_private\\_vlan](#) (struct smiclient\_globals \*azg, u\_int32\_t vrid, char \*bridgeId, int \*pvlanId, struct list \*primList, int(\*funPointer1)(struct list \*primList), struct list \*seconList, int(\*funPointer2)(struct list \*seconList))  
*Shows all the private VLAN's information of given bridge.*
- int [smi\\_nsm\\_show\\_private\\_vlan\\_default\\_bridge](#) (struct smiclient\_globals \*azg, u\_int32\_t vrid, int \*pvlanId, struct list \*primList, int(\*funPointer1)(struct list \*primList), struct list \*seconList, int(\*funPointer2)(struct list \*seconList))  
*Shows all the private VLAN's information of default bridge.*
- int [smi\\_client\\_create\\_n\\_send\\_pvlan\\_msg](#) (struct smi\_client\_handler \*async, int vrid, [pvlan\\_msg](#) \*msg, int optype)
- int [smi\\_client\\_read\\_sync\\_pvlan\\_msg](#) (struct smi\_client\_handler \*ach, int msgtype, void \*getmsg)

### 4.1.1 Detailed Description

A private VLAN contains switch ports that can not communicate with each other, but can access other networks. This file provides APIs for the configuration and management of private VLANs within ZebOS. nsm

### 4.1.2 Function Documentation

- 4.1.2.1** int [smi\\_nsm\\_show\\_private\\_vlan](#) (struct smiclient\_globals \* azg, u\_int32\_t vrid, char \* bridgeId, int \* pvlanId, struct list \* primList, int(\*) (struct list \*primList) funPointer1, struct list \* seconList, int(\*) (struct list \*seconList) funPointer2)

Shows all the private VLAN's information of given bridge. [smi\\_nsm\\_show\\_private\\_vlan](#)

**Parameters:**

- ← *azg* Pointer to the SMI client global structure
- ← *vrId* Virtual Router ID <0-255>
- ← *bridgeId* Bridge name <1-32>
- *pvlanId* Primary Vlan Id
- *primList* Pointer to linked list of pvlanId
- ← *funPointer1* Callback function pointer
- *seconList* Pointer to linked list of structure [pSecondaryVlan](#)
- ← *funPointer2* Callback function pointer

**Returns:**

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

**4.1.2.2** `int smi_nsm_show_private_vlan_default_bridge (struct smiclient_globals * azg, u_int32_t vrId, int * pvlanId, struct list * primList, int(*) (struct list * primList) funPointer1, struct list * seconList, int(*) (struct list * seconList) funPointer2)`

Shows all the private VLAN's information of default bridge. `smi_nsm_show_private_vlan_default_bridge`

**Parameters:**

- ← *azg* Pointer to the SMI client global structure
- ← *vrId* Virtual Router ID <0-255>
- ← *bridgeId* Bridge name <1-32>
- *pvlanId* Primary Vlan Id
- *primList* Pointer to linked list of pvlanId
- ← *funPointer1* Callback function pointer
- *seconList* Pointer to linked list of structure [pSecondaryVlan](#)
- ← *funPointer2* Callback function pointer

**Returns:**

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

**4.1.2.3** `int smi_pvlan_associate_add (struct smiclient_globals * azg, u_int32_t vrId, char * bridgeId, u_int16_t pvlanId, u_int16_t svlanId)`

Associates a secondary VLAN to a primary VLAN. Only one isolated VLAN can be associated to a primary VLAN. Multiple community VLAN can be associated to a primary VLAN. `smi_pvlan_associate_add`



**Parameters:**

- ← *azg* Pointer to the SMI client global structure
- ← *vrId* Virtual Router ID
- ← *bridgeId* Bridge Id <1-32>
- ← *vlanId* VLAN Id <2-4094>
- ← *pvlanId* Private VLAN identifier <2-4094>

**Returns:**

0 on success, otherwise one of the following error codes  
 NSM\_VLAN\_ERR\_BRIDGE\_NOT\_FOUND  
 NSM\_VLAN\_ERR\_BRIDGE\_NOT\_VLAN\_AWARE  
 NSM\_NO\_VLAN\_CONFIGURED  
 NSM\_PVLAN\_ERR\_PROVIDER\_BRIDGE  
 NSM\_PVLAN\_ERR\_PRIMARY\_SECOND\_SAME  
 NSM\_VLAN\_ERR\_VLAN\_NOT\_FOUND  
 NSM\_PVLAN\_ERR\_NOT\_CONFIGURED  
 NSM\_PVLAN\_ERR\_NOT\_PRIMARY\_VLAN  
 NSM\_PVLAN\_ERR\_NOT\_SECONDARY\_VLAN  
 NSM\_PVLAN\_ERR\_ISOLATED\_VLAN\_EXISTS  
 NSM\_PVLAN\_ERR\_ASSOCIATED\_TO\_PRIMARY

#### 4.1.2.4 int smi\_pvlan\_associate\_clear\_all (struct smiclient\_globals \* *azg*, u\_int32\_t *vrId*, char \* *bridgeId*, u\_int16\_t *vlanId*)

Remove association of all the secondary VLAN to primary VLAN. smi\_pvlan\_associate\_clear\_all

**Parameters:**

- ← *azg* Pointer to the SMI client global structure
- ← *vrId* Virtual Router Id
- ← *bridgeId* Bridge Id <1-32>
- ← *vlanId* VLAN Id <2-4094>

**Returns:**

0 on success, otherwise one of the following error codes  
 NSM\_VLAN\_ERR\_BRIDGE\_NOT\_FOUND  
 NSM\_VLAN\_ERR\_BRIDGE\_NOT\_VLAN\_AWARE  
 NSM\_NO\_VLAN\_CONFIGURED  
 NSM\_PVLAN\_ERR\_PROVIDER\_BRIDGE  
 NSM\_VLAN\_ERR\_VLAN\_NOT\_FOUND  
 NSM\_PVLAN\_NOT\_CONFIGURED  
 NSM\_PVLAN\_ERR\_NOT\_PRIMARY\_VLAN

#### 4.1.2.5 `int smi_pvlan_associate_remove (struct smiclient_globals * azg, u_int32_t vrId, char * bridgeId, u_int16_t pvlanId, u_int16_t svlanId)`

Remove the associate between primary and secondary VLAN. `smi_pvlan_associate_remove`

##### Parameters:

- ← *azg* Pointer to the SMI client global structure
- ← *vrId* Virtual Router Id
- ← *bridgeId* Bridge Id <1-32>
- ← *vlanId* VLAN Id <2-4094>
- ← *pvlanId* Private VLAN Id <2-4094>

0 On success, otherwise one of the following error codes

NSM\_VLAN\_ERR\_BRIDGE\_NOT\_FOUND

NSM\_VLAN\_ERR\_BRIDGE\_NOT\_VLAN\_AWARE

NSM\_NO\_VLAN\_CONFIGURED

NSM\_PVLAN\_ERR\_PROVIDER\_BRIDGE

NSM\_VLAN\_ERR\_VLAN\_NOT\_FOUND

NSM\_PVLAN\_ERR\_NOT\_CONFIGURED

NSM\_PVLAN\_ERR\_NOT\_PRIMARY\_VLAN

NSM\_PVLAN\_ERR\_NOT\_SECONDARY\_VLAN

NSM\_VLAN\_ERR\_VLAN\_NOT\_FOUND

#### 4.1.2.6 `int smi_pvlan_clear_port_mode_validate (struct smiclient_globals * azg, u_int32_t vrId, char * ifName, enum smi_pvlan_port_mode portMode)`

Remove host/promiscuous portMode configuration from a port. `smi_pvlan_clear_port_mode`

##### Parameters:

- ← *azg* Pointer to the SMI client global structure
- ← *vrId* Virtual Router Id
- ← *ifName* Interface Name from which host/promiscuous portMode configuration needs to be removed
- ← *portMode* Port mode to be removed host/promiscuous

0 On success, otherwise one of the following error codes

NSM\_VLAN\_ERR\_IFP\_NOT\_BOUND

NSM\_VLAN\_ERR\_BRIDGE\_NOT\_FOUND

NSM\_PVLAN\_ERR\_PROVIDER\_BRIDGE

NSM\_VLAN\_ERR\_INVALID\_MODE

NSM\_PVLAN\_ERR\_INVALID\_MODE

**4.1.2.7** `int smi_pvlan_create (struct smiclient_globals * azg, u_int32_t vrId, char * bridgeId, u_int16_t vlanId, enum smi_pvlan_type pvlanType)`

Creates a private VLAN. smi\_pvlan\_create

**Parameters:**

- ← *azg* Pointer to the SMI client global structure
- ← *vrId* Virtual Router Id
- ← *bridgeId* Bridge Id <1-32>. If only default bridge is supported this value should be passed as 0.
- ← *vlanId* VLAN ID
- ← *pvlanType* It can take one of the following values
  - SMI\_PVLAN\_NONE = 0,
  - SMI\_PVLAN\_COMMUNITY = 1,
  - SMI\_PVLAN\_ISOLATED = 2,
  - SMI\_PVLAN\_PRIMARY = 3

**Returns:**

0 if success, otherwise one of the following error codes NSM\_VLAN\_ERR\_-  
 BRIDGE\_NOT\_FOUND  
 NSM\_VLAN\_ERR\_BRIDGE\_NOT\_VLAN\_AWARE  
 NSM\_NO\_VLAN\_CONFIGURED  
 NSM\_PVLAN\_ERR\_PROVIDER\_BRIDGE  
 NSM\_VLAN\_ERR\_VLAN\_NOT\_FOUND

**4.1.2.8** `int smi_pvlan_delete (struct smiclient_globals * azg, u_int32_t vrId, char * bridgeId, u_int16_t vlanId, enum smi_pvlan_type pvlanType)`

Deletes a private VLAN. smi\_pvlan\_delete

**Parameters:**

- ← *azg* Pointer to the SMI client global structure
- ← *vrId* Virtual Router Id
- ← *bridgeId* Bridge Name <1-32>
- ← *vlanId* VLAN Id
- ← *pvlanType* It can take one of the following values
  - SMI\_PVLAN\_NONE = 0,

```
SMI_PVLAN_COMMUNITY = 1,
SMI_PVLAN_ISOLATED = 2,
SMI_PVLAN_PRIMARY = 3
```

**Returns:**

0 on success, otherwise one of the following error codes NSM\_VLAN\_ERR\_-  
 BRIDGE\_NOT\_FOUND  
 NSM\_VLAN\_ERR\_BRIDGE\_NOT\_VLAN\_AWARE  
 NSM\_NO\_VLAN\_CONFIGURED  
 NSM\_PVLAN\_ERR\_PROVIDER\_BRIDGE  
 NSM\_VLAN\_ERR\_VLAN\_NOT\_FOUND  
 NSM\_PVLAN\_ERR\_NOT\_ISOLATED\_VLAN  
 NSM\_PVLAN\_ERR\_NOT\_PRIMARY\_VLAN  
 NSM\_PVLAN\_ERR\_NOT\_COMMUNITY\_VLAN  
 NSM\_PVLAN\_ERR\_NOT\_CONFIGURED

#### 4.1.2.9 int smi\_pvlan\_get\_port\_mode (struct smiclient\_globals \* *azg*, u\_int32\_t *vrId*, char \* *ifName*, enum smi\_pvlan\_port\_mode \* *portMode*)

Get a layer 2 port as host port or promiscuous port. smi\_pvlan\_get\_port\_mode

**Parameters:**

← *azg* Pointer to the SMI client global structure  
 ← *vrId* Virtual Router Id  
 ← *ifName* Interface name which needs to be set in host/promiscuous portMode  
 → *portMode* Port mode, can be one of the following NSM\_PVLAN\_PORT\_-  
 Mode\_HOST = 1  
 NSM+PVLAN\_PORT\_Mode\_PROMISCOUS = 2

**Returns:**

0 on success, otherwise one of the following error codes  
 NSM\_VLAN\_ERR\_IFP\_NOT\_BOUND  
 NSM\_VLAN\_ERR\_BRIDGE\_NOT\_FOUND  
 NSM\_VLAN\_ERR\_BRIDGE\_NOT\_VLAN\_AWARE  
 NSM\_PVLAN\_ERR\_PROVIDER\_BRIDGE  
 NSM\_VLAN\_ERR\_INVALID\_MODE  
 NSM\_PVLAN\_ERR\_INVALID\_MODE

#### 4.1.2.10 int smi\_pvlan\_host\_association\_add (struct smiclient\_globals \* *azg*, u\_int32\_t *vrId*, char \* *ifName*, u\_int16\_t *pvlanId*, u\_int16\_t *svlanId*)

Associate a primary VLAN and a secondary VLAN to a host port. smi\_pvlan\_host\_-  
 association\_add

param[in] *vrId* Virtual Router Id

param[in] *ifName* Interface Name to which a primary and secondary VLANs needs to be associated

param[in] *vlanId* VLAN Id of the primary VLAN <2-4094>

param[in] *pvlanId* VLAN identifier of the secondary VLAN <2-4094>

#### Parameters:

← *azg* Pointer to the SMI client global structure

#### Returns:

0 on success, otherwise one of the following error codes

NSM\_VLAN\_ERR\_IFP\_NOT\_BOUND

NSM\_VLAN\_ERR\_IFP\_NOT\_BOUND

NSM\_PVLAN\_ERR\_PROVIDER\_BRIDGE

NSM\_VLAN\_ERR\_BRIDGE\_NOT\_VLAN\_AWARE

NSM\_VLAN\_ERR\_INVALID\_MODE

NSM\_PVLAN\_ERR\_NOT\_HOST\_PORT

NSM\_NO\_VLAN\_CONFIGURED

NSM\_VLAN\_ERR\_VLAN\_NOT\_FOUND

NSM\_PVLAN\_ERR\_NOT\_CONFIGURED

NSM\_PVLAN\_ERR\_NOT\_PRIMARY\_VLAN

NSM\_PVLAN\_ERR\_INVALID\_MODE

NSM\_PVLAN\_ERR\_SECOND\_NOT\_ASSOCIATED

NSM\_VLAN\_ERR\_VLAN\_NOT\_FOUND

#### 4.1.2.11 int smi\_pvlan\_host\_association\_remove\_validate (struct smiclient\_globals \* *azg*, u\_int32\_t *vrId*, char \* *ifName*)

Remove primary and secondary VLAN association to a host port. smi\_pvlan\_host\_association\_remove

#### Parameters:

← *azg* Pointer to the SMI client global structure

← *vrId* Virtual Router Id

← *ifName* Interface name from which primary and secondary VLAN association needs to be removed

#### Returns:

0 on success, otherwise one of the following error code

NSM\_VLAN\_ERR\_IFP\_NOT\_BOUND

NSM\_PVLAN\_ERR\_PROVIDER\_BRIDGE

NSM\_PVLAN\_ERR\_INVALID\_MODE

NSM\_VLAN\_ERR\_VLAN\_NOT\_FOUND

NSM\_PVLAN\_ERR\_NOT\_SECONDARY\_VLAN

NSM\_VLAN\_ERR\_VLAN\_NOT\_FOUND

#### 4.1.2.12 `int smi_pvlan_set_port_mode (struct smiclient_globals * azg, u_int32_t vrId, char * ifName, enum smi_pvlan_port_mode portMode)`

Set a layer 2 port as host port or promiscuous port. `smi_pvlan_set_port_mode`

##### Parameters:

- ← *azg* Pointer to the SMI client global structure
- ← *vrId* Virtual Router Id
- ← *ifName* Interface name which needs to be set in host/promiscuous portMode
- ← *portMode* Port mode, can be one of the following NSM\_PVLAN\_PORT\_Mode\_HOST = 1  
NSM\_PVLAN\_PORT\_Mode\_PROMISCOUS = 2

##### Returns:

0 on success, otherwise one of the following error codes  
 NSM\_VLAN\_ERR\_IFP\_NOT\_BOUND  
 NSM\_VLAN\_ERR\_BRIDGE\_NOT\_FOUND  
 NSM\_VLAN\_ERR\_BRIDGE\_NOT\_VLAN\_AWARE  
 NSM\_PVLAN\_ERR\_PROVIDER\_BRIDGE  
 NSM\_VLAN\_ERR\_INVALID\_MODE  
 NSM\_PVLAN\_ERR\_INVALID\_Mode

#### 4.1.2.13 `int smi_pvlan_switchport_mapping_add (struct smiclient_globals * azg, u_int32_t vrId, char * ifName, u_int16_t vlanId, struct smi_vlan_bmp * pvlanIdBmp)`

Associate a primary VLAN and a set of secondary VLANs to a promiscuous port. `smi_pvlan_switchport_mapping_add`

##### Parameters:

- ← *azg* Pointer to the SMI client global structure
- ← *vrId* Virtual Router Id
- ← *ifName* Interface name to which primary and secondary VLANs needs to be associated
- ← *vlanId* primary VLAN id
- ← *pvlanIdBmp* A bitmap of secondary VLAN Ids

##### Returns:

0 on success, otherwise one of the following error codes  
 NSM\_VLAN\_ERR\_IFP\_NOT\_BOUND  
 NSM\_PVLAN\_ERR\_PROVIDER\_BRIDGE  
 NSM\_VLAN\_ERR\_BRIDGE\_NOT\_VLAN\_AWARE  
 NSM\_VLAN\_ERR\_INVALID\_MODE

```
NSM_NO_VLAN_CONFIGURED
NSM_VLAN_ERR_VLAN_NOT_FOUND
NSM_PVLAN_ERR_NOT_CONFIGURED
NSM_PVLAN_ERR_NOT_PRIMARY_VLAN
NSM_PVLAN_ERR_INVALID_MODE
NSM_PVLAN_ERR_SECOND_NOT_ASSOCIATED
```

**4.1.2.14** `int smi_pvlan_switchport_mapping_remove (struct smiclient_globals  
* azg, u_int32_t vrId, char * ifName, u_int16_t vlanId, struct  
smi_vlan_bmp * pvlanIdBmp)`

Remove the association of a set of secondary VLANs to a primary VLAN on a promiscuous port. `smi_pvlan_switchport_mapping_remove`

**Parameters:**

- ← *azg* Pointer to the SMI client global structure
- ← *vrId* Virtual Router Id
- ← *ifName* Interface name for which switchport mapping needs to be removed
- ← *vlanId* Primary VLAN id
- ← *pvlanIdBmp* A bitmap of secondary VLAN Ids

**4.1.2.15** `int smi_pvlan_switchport_mapping_remove_all (struct  
smiclient_globals * azg, u_int32_t vrId, char * ifName)`

Remove all the association of secondary VLANs to primary VLAN for a promiscuous port. `smi_pvlan_switchport_mapping_remove_all`

**Parameters:**

- ← *azg* Pointer to the SMI client global structure
- ← *vrId* Virtual Router Id
- ← *ifName* Interface Name

**Returns:**

0 on success, otherwise one of the following error codes  
NSM\_VLAN\_ERR\_IFP\_NOT\_BOUND  
NSM\_PVLAN\_ERR\_INVALID\_MODE  
NSM\_VLAN\_ERR\_VLAN\_NOT\_FOUND  
NSM\_PVLAN\_ERR\_NOT\_CONFIGURED  
NSM\_PVLAN\_ERR\_NOT\_PRIMARY\_VLAN

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

Defines data structures used by Private VLAN 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 [pSecondaryVlan](#)
- struct [pvlanPrimList](#)
- struct [pvlanSeconList](#)
- struct [pvlan\\_msg\\_](#)

### Defines

- #define **SMI\_PVLAN\_RANGE\_MIN** 2
- #define **SMI\_PVLAN\_RANGE\_MAX** 4094
- #define **SMI\_PVLAN\_CTYPE\_VR\_ID** 0
- #define **SMI\_PVLAN\_CTYPE\_BR\_ID** 1
- #define **SMI\_PVLAN\_CTYPE\_VLAN\_ID** 2
- #define **SMI\_PVLAN\_CTYPE\_PVLAN\_TYPE** 3
- #define **SMI\_PVLAN\_CTYPE\_PVID** 4
- #define **SMI\_PVLAN\_CTYPE\_IFNAME** 5
- #define **SMI\_PVLAN\_CTYPE\_MODE** 6
- #define **SMI\_PVLAN\_CTYPE\_PVID\_BMP** 7
- #define **SMI\_PVLAN\_CTYPE\_BR\_NAME** 8
- #define **SMI\_PVLAN\_CTYPE\_PRIM\_VID** 9
- #define **SMI\_PVLAN\_CTYPE\_PRIM\_LIST** 10
- #define **SMI\_PVLAN\_CTYPE\_SECON\_LIST** 11
- #define **SMI\_PVLAN\_CTYPE\_EXTENDED\_1** 31

### Typedefs

- typedef struct [pvlan\\_msg\\_](#) **pvlan\_msg**



## Enumerations

- enum **smi\_pvlan\_port\_mode** { SMI\_PVLAN\_PORT\_MODE\_INVALID, SMI\_PVLAN\_PORT\_MODE\_HOST, SMI\_PVLAN\_PORT\_MODE\_PROMISCUOUS }
- enum **smi\_pvlan\_type** { SMI\_PVLAN\_NONE, SMI\_PVLAN\_COMMUNITY, SMI\_PVLAN\_ISOLATED, SMI\_PVLAN\_PRIMARY }
- enum **secondaryVlanType** { NSM\_PRIVATE\_VLAN\_NONE, NSM\_PRIVATE\_VLAN\_COMMUNITY, NSM\_PRIVATE\_VLAN\_ISOLATED, NSM\_PRIVATE\_VLAN\_PRIMARY }

## Functions

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

### 4.2.1 Detailed Description

Defines data structures used by Private VLAN SMI APIs.

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