

# Configuring Multicast VLAN via SNMP on DES-3528 Series

MIB for F/W 2.01.B42

## The Location of Limited Multicast OID

The screenshot displays a network management interface with a tree view on the left and a details pane on the right. The tree view shows the following structure:

- mcastVlanMIB
  - swMcastVlanCtrl
  - swISMVlanGlobalState
  - swMSMVlanGlobalState
  - swMcastVlanInfo
  - swMcastVlanMgmt
  - swISMVlanTable
    - swISMVlanEntry** (highlighted with a red box)
      - swISMVlanID
      - swISMVlanName
      - swISMVlanSourcePort
      - swISMVlanMemberPort
      - swISMVlanTagMemberPort
      - swISMVlanUntagSourcePort
      - swISMVlanState
      - swISMVlanRepSourceAddrType
      - swISMVlanRepSourceAddr
      - swISMVlanRemapPriority
      - swISMVlanReplacePriority
      - swISMVlanProfileIDList
      - swISMVlanRowStatus

The details pane on the right shows the following information for the selected object:

Object name	swISMVlanEntry
Object ID	1.3.6.1.4.1.171.12.64.3.1.1
Module	MCAST-VLAN-MIB
Base syntax	Sequence
Access	Not_Accessible
Status	Current
Index	1.swISMVlanID
Parent node	swISMVlanTable
First child	swISMVlanID
Description	This is an entry of the swISMVlanTable.

**MIB File: MCAST-VLAN-MIB**

**OID: 1.3.6.1.4.1.171.12.64.3.1.1**

## Limited Multicast Table

Object name	swISMVlanTable
Object ID	1.3.6.1.4.1.171.12.64.3.1
Module	MCAST-VLAN-MIB
Base syntax	Sequence Of swISMVlanEntry
Access	Not_Accessible
Status	Current
Sequence	1:swISMVlanID - Integer 2:swISMVlanName - Octet String 3:swISMVlanSourcePort - Octet String 4:swISMVlanMemberPort - Octet String 5:swISMVlanTagMemberPort - Octet String 6:swISMVlanUntagSourcePort - Octet String 7:swISMVlanState - Integer 8:swISMVlanRepSourceAddrType - Integer 9:swISMVlanRepSourceAddr - Octet String 10:swISMVlanRemapPriority - Integer 11:swISMVlanReplacePriority - Integer 12:swISMVlanProfileIDList - Octet String 13:swISMVlanRowStatus - Integer
Parent node	swMcastVlanMgmt
First child	swISMVlanEntry
Description	This contains information about the IGMP snooping multicast VLAN table.

## Show IGMP Multicast VLAN ID

:: Command ::

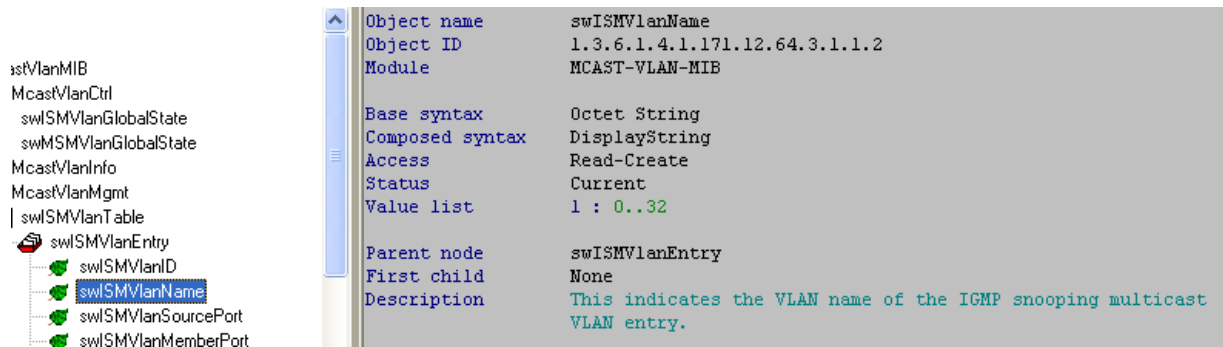
```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.171.12.64.3.1.1.1
```

Object name	swISMVlanID
Object ID	1.3.6.1.4.1.171.12.64.3.1.1.1
Module	MCAST-VLAN-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Only
Status	Current
Value list	1 : 2..4094
Parent node	swISMVlanEntry
First child	None
Description	This indicates the VLAN ID of the IGMP snooping multicast VLAN entry.

## Show IGMP Multicast VLAN Name

### :: Command ::

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.171.12.64.3.1.1.2
```



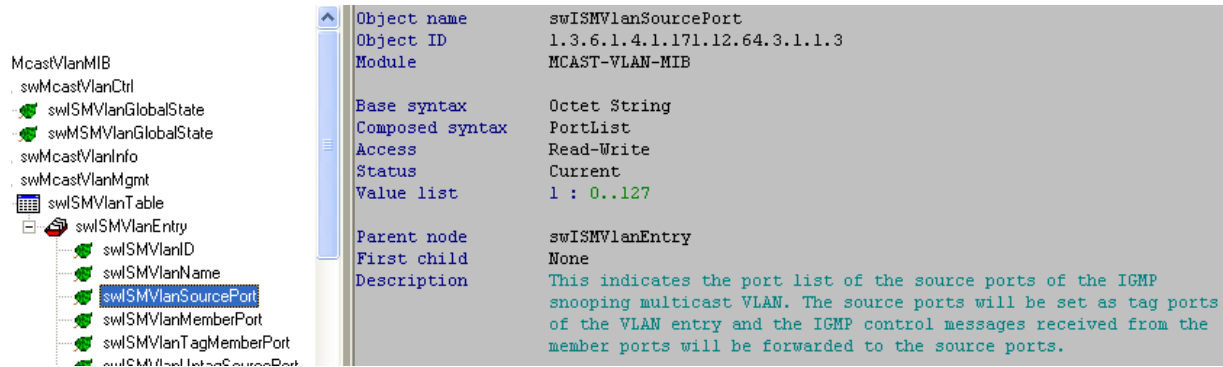
The screenshot shows an SNMP walk interface. On the left is a tree view of the MIB structure. The selected object is 'swISMVlanName'. On the right, the object's details are displayed in a table format.

Object name	swISMVlanName
Object ID	1.3.6.1.4.1.171.12.64.3.1.1.2
Module	MCAST-VLAN-MIB
Base syntax	Octet String
Composed syntax	DisplayString
Access	Read-Create
Status	Current
Value list	1 : 0..32
Parent node	swISMVlanEntry
First child	None
Description	This indicates the VLAN name of the IGMP snooping multicast VLAN entry.

## Show IGMP Multicast VLAN Source Port

### :: Command ::

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.171.12.64.3.1.1.3
```



The screenshot shows an SNMP walk interface. On the left is a tree view of the MIB structure. The selected object is 'swISMVlanSourcePort'. On the right, the object's details are displayed in a table format.

Object name	swISMVlanSourcePort
Object ID	1.3.6.1.4.1.171.12.64.3.1.1.3
Module	MCAST-VLAN-MIB
Base syntax	Octet String
Composed syntax	PortList
Access	Read-Write
Status	Current
Value list	1 : 0..127
Parent node	swISMVlanEntry
First child	None
Description	This indicates the port list of the source ports of the IGMP snooping multicast VLAN. The source ports will be set as tag ports of the VLAN entry and the IGMP control messages received from the member ports will be forwarded to the source ports.

## Show IGMP Multicast VLAN Member Port

### :: Command ::

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.171.12.64.3.1.1.4
```

The screenshot shows a tree view on the left with 'swISMVlanMemberPort' selected. The main pane displays the following details:

Object name	swISMVlanMemberPort
Object ID	1.3.6.1.4.1.171.12.64.3.1.1.4
Module	MCAST-VLAN-MIB
Base syntax	Octet String
Composed syntax	PortList
Access	Read-Write
Status	Current
Value list	1 : 0..127
Parent node	swISMVlanEntry
First child	None
Description	This indicates the port list of the member ports of the IGMP snooping multicast VLAN. The source ports will be set as untagged ports of the VLAN entry and the IGMP control messages received from the member ports will be forwarded to the source ports.

## Show IGMP Multicast VLAN Row Status

### :: Command ::

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.171.12.64.3.1.1.13
```

The screenshot shows a tree view on the left with 'swISMVlanRowStatus' selected. The main pane displays the following details:

Object name	swISMVlanRowStatus
Object ID	1.3.6.1.4.1.171.12.64.3.1.1.13
Module	MCAST-VLAN-MIB
Base syntax	Integer
Composed syntax	RowStatus
Access	Read-Create
Status	Current
Value list	1 : active(1) 2 : notInService(2) 3 : notReady(3) 4 : createAndGo(4) 5 : createAndWait(5) 6 : destroy(6)
Parent node	swISMVlanEntry
First child	None
Description	This indicates the status of this entry.

## Show IGMP Multicast VLAN Replace Source IP

:: Command ::

```
snmpwalk -v2c -c public 1.3.6.1.4.1.171.12.64.3.1.1.9
```

The screenshot shows the output of an SNMP walk command. On the left is a tree view of the MIB structure, with `swISMVlanRepSourceAddr` selected. On the right is a detailed view of the selected object:

Object name	swISMVlanRepSourceAddr
Object ID	1.3.6.1.4.1.171.12.64.3.1.1.9
Module	MCAST-VLAN-MIB
Base syntax	Octet String
Composed syntax	InetAddress
Access	Read-Write
Status	Current
Value list	1 : 0..255
Parent node	swISMVlanEntry
First child	None
Description	This is the replacement address of this multicast VLAN.

## Set up Multicast VLAN and Replace IP

### SNMP Command

```
snmpset -v2c -c private 192.168.0.1 1.3.6.1.4.1.171.12.64.3.1.1.2.1000 s test
1.3.6.1.4.1.171.12.64.3.1.1.3.1000 x 000000C0 1.3.6.1.4.1.171.12.64.3.1.1.4.1000 x FFFFFFF0
1.3.6.1.4.1.171.12.64.3.1.1.7.1000 i 1 1.3.6.1.4.1.171.12.64.3.1.1.8.1000 i 1
1.3.6.1.4.1.171.12.64.3.1.1.9.1000 s 192.168.0.100 1.3.6.1.4.1.171.12.64.3.1.1.13.1000 i 4
```

### Step 1. Set up the Multicast VLAN Name

```
snmpset -v2c -c private 192.168.0.1 1.3.6.1.4.1.171.12.64.3.1.1.2.1000 s test
```

**1.3.6.1.4.1.171.12.64.3.1.1.2.1000**

**1000** → VLAN ID

**test** → VLAN Name

### Step 2. Set up Multicast VLAN Source Port

```
snmpset -v2c -c private 192.168.0.1 1.3.6.1.4.1.171.12.64.3.1.1.3.1000 x 000000C0
```

**000000C0** → Source Port 25 & 26

### Step 3. Set up Multicast VLAN Member Port

```
snmpset -v2c -c private 192.168.0.1 1.3.6.1.4.1.171.12.64.3.1.1.4.1000 x FFFFFFF0
```

**FFFFFFF0** → Member Port 1-24

**FFFFFFF0**

| \

**1111 1111....**

**Port 1-4 Port 5-8**

### Step 4. Create and Go

```
snmpset -v2c -c private 192.168.0.1 1.3.6.1.4.1.171.12.64.3.1.1.13.1000 i 4
```

### **Step 5. Set up Replace IP**

```
snmpset -v2c -c private 192.168.0.1 192.168.0.1 1.3.6.1.4.1.171.12.64.3.1.1.9.1000 s  
192.168.0.100
```