

## How to configure **VLAN settings** in DGS-3120 Stacking via NETSNMP?

The OIDs are defined in “**Q-BRIDGE-MIB**”

### # dot1qVlanStaticTable

|             |  |
|-------------|--|
| Object name | dot1qVlanStaticTable   |
| Object ID   | 1.3.6.1.2.1.17.7.1.4.3   |
| Module      | Q-BRIDGE-MIB   |
| Base syntax | Sequence Of dot1qVlanStaticEntry   |
| Access      | Not_Accessible   |
| Status      | Current  |
| Sequence    | 1:dot1qVlanStaticName - Octet String<br>2:dot1qVlanStaticEgressPorts - Octet String<br>3:dot1qVlanForbiddenEgressPorts - Octet String<br>4:dot1qVlanStaticUntaggedPorts - Octet String<br>5:dot1qVlanStaticRowStatus - Integer |
| Parent node | dot1qVlan  |
| First child | dot1qVlanStaticEntry   |
| Description | A table containing static configuration information for each VLAN configured into the device by (local or network) management. All entries are permanent and will be restored after the device is reset.                       |

### # dot1qVlanStaticEntry

|             |  |
|-------------|--|
| Object name | dot1qVlanStaticEntry   |
| Object ID   | 1.3.6.1.2.1.17.7.1.4.3.1   |
| Module      | Q-BRIDGE-MIB   |
| Base syntax | Sequence   |
| Access      | Not_Accessible   |
| Status      | Current  |
| Index       | 1.dot1qVlanIndex   |
| Parent node | dot1qVlanStaticTable   |
| First child | dot1qVlanStaticName  |
| Description | Static information for a VLAN configured into the device by (local or network) management. |

## # dot1qVlanStaticName

|                 |  |
|-----------------|--|
| Object name     | dot1qVlanStaticName  |
| Object ID       | 1.3.6.1.2.1.17.7.1.4.3.1.1   |
| Module          | Q-BRIDGE-MIB   |
| Base syntax     | Octet String   |
| Composed syntax | SnmpAdminString  |
| Access          | Read-Create  |
| Status          | Current  |
| Value list      | 1 : 0..32  |
| Parent node     | dot1qVlanStaticEntry   |
| First child     | None   |
| Description     | An administratively assigned string, which may be used to identify the VLAN. |

## # dot1qVlanStaticEgressPorts

|                 |  |
|-----------------|--|
| Object name     | dot1qVlanStaticEgressPorts   |
| Object ID       | 1.3.6.1.2.1.17.7.1.4.3.1.2   |
| Module          | Q-BRIDGE-MIB   |
| Base syntax     | Octet String   |
| Composed syntax | PortList   |
| Access          | Read-Create  |
| Status          | Current  |
| Parent node     | dot1qVlanStaticEntry   |
| First child     | None   |
| Description     | The set of ports which are permanently assigned to the egress list for this VLAN by management. Changes to a bit in this object affect the per-port per-VLAN Registrar control for Registration Fixed for the relevant GVRP state machine on each port. A port may not be added in this set if it is already a member of the set of ports in dot1qVlanForbiddenEgressPorts. The default value of this object is a string of zeros of appropriate length, indicating not fixed. |

## #dot1qVlanForbiddenEgressPorts

|                 |   |
|-----------------|---|
| Object name     | dot1qVlanForbiddenEgressPorts   |
| Object ID       | 1.3.6.1.2.1.17.7.1.4.3.1.3  |
| Module          | Q-BRIDGE-MIB  |
| Base syntax     | Octet String  |
| Composed syntax | PortList  |
| Access          | Read-Create   |
| Status          | Current   |
| Parent node     | dot1qVlanStaticEntry  |
| First child     | None  |
| Description     | <p>The set of ports which are prohibited by management from being included in the egress list for this VLAN.</p> <p>Changes to this object that cause a port to be included or excluded affect the per-port per-VLAN Registrar control for Registration Forbidden for the relevant GVRP state machine on each port. A port may not be added in this set if it is already a member of the set of ports in dot1qVlanStaticEgressPorts. The default value of this object is a string of zeros of appropriate length,</p> |

## #dot1qVlanStaticUntaggedPorts

|                 |   |
|-----------------|---|
| Object name     | dot1qVlanStaticUntaggedPorts  |
| Object ID       | 1.3.6.1.2.1.17.7.1.4.3.1.4  |
| Module          | Q-BRIDGE-MIB  |
| Base syntax     | Octet String  |
| Composed syntax | PortList  |
| Access          | Read-Create   |
| Status          | Current   |
| Parent node     | dot1qVlanStaticEntry  |
| First child     | None  |
| Description     | <p>The set of ports which should transmit egress packets for this VLAN as untagged. The default value of this object for the default VLAN (dot1qVlanIndex = 1) is a string of appropriate length including all ports. There is no specified default for other VLANs. If a device agent cannot support the set of ports being set then it will reject the set operation with an error. An example might be if a manager attempts to set more than one VLAN to be untagged on egress where the device does not support this IEEE 802.1Q</p> |

## #dot1qVlanStaticRowStatus

|                 |   |
|-----------------|---|
| Object name     | dot1qVlanStaticRowStatus  |
| Object ID       | 1.3.6.1.2.1.17.7.1.4.3.1.5  |
| Module          | Q-BRIDGE-MIB  |
| Base syntax     | Integer   |
| Composed syntax | RowStatus   |
| Access          | Read-Create   |
| Status          | Current   |
| Value list      | 1: active(1)<br>2: notInService(2)<br>3: notReady(3)<br>4: createAndGo(4)<br>5: createAndWait(5)<br>6: destroy(6) |
| Parent node     | dot1qVlanStaticEntry  |
| First child     | None  |
| Description     | This object indicates the status of this entry.   |

## Switch F/W Test Version => R2.00.010

```
DGS-3120-24TC Gigabit Ethernet Switch
Command Line Interface

Firmware: Build 2.00.010
Copyright(C) 2011 D-Link Corporation. All rights reserved.
UserName:
Password:

DGS-3120-24TC:admin#show stack_information
Command: show stack_information

Topology      :duplex_chain
My Box ID    :1
Master ID    :1
BK Master ID :2
Box Count    :2

Force Master Role: Disabled
Trap State   :Enabled
Log State    :Enabled

Box  User      Type      Exist  Prio-  MAC      Prom  Runtime  H/w
ID   Set        Type      rity   MAC      version version version
-----
1   User      DGS-3120-24TC  Exist  1   1C-AF-F7-30-C9-FF  2.00.003  2.00.010  A1
2   User      DGS-3120-24TC  Exist  2   1C-AF-F7-30-C9-E6  2.00.003  2.00.010  A1
3   -         NOT_EXIST      No
4   -         NOT_EXIST      No
5   -         NOT_EXIST      No
6   -         NOT_EXIST      No

DGS-3120-24TC:admin#
```

**[Test Procedures]**

**# CLI command => config vlan default delete 1:9-1:16,2:9-2:16**

**Step1. Remove Untagged Member Ports 1:9-1:16,2:9-2:16 from VLAN default (VID 1).**

=> snmpset -v2c -c private 10.90.90.90 1.3.6.1.2.1.17.7.1.4.3.1.4.1 x ff00ff0000000000ff00ff0000000000

**Step2. Remove Egress Member Ports 1:9-1:16,2:9-2:16 from VLAN default (VID 1).**

=> snmpset -v2c -c private 10.90.90.90 1.3.6.1.2.1.17.7.1.4.3.1.2.1 x ff00ff0000000000ff00ff0000000000

**# CLI command => create vlan v2 tag 2**

=> snmpset -v2c -c private 10.90.90.90 1.3.6.1.2.1.17.7.1.4.3.1.1.2 x 7632  
1.3.6.1.2.1.17.7.1.4.3.1.2.2 x 00000000000000000000000000000000  
1.3.6.1.2.1.17.7.1.4.3.1.4.2 x 00000000000000000000000000000000  
1.3.6.1.2.1.17.7.1.4.3.1.5.2 i 4

**# CLI command => config vlan v2 add tagged 1:23-1:24,2:23-2:24**

=> snmpset -v2c -c private 10.90.90.90 1.3.6.1.2.1.17.7.1.4.3.1.2.2 x 0000030000000000000000030000000000

**Note : Please configure Tagged Member Port (Egress Port) first.**

**# CLI command => config vlan v2 add untagged 1:9-1:16,2:9-2:16**

=> snmpset -v2c -c private 10.90.90.90 1.3.6.1.2.1.17.7.1.4.3.1.4.2 x 00ff00000000000000ff000000000000

**# CLI command => delete vlan v2**

=> snmpset -v2c -c private 10.90.90.90 1.3.6.1.2.1.17.7.1.4.3.1.5.2 i 6

## [Test Results]

```
DGS-3120-24TC:admin#sh vlan
Command: show vlan

VLAN Trunk State      : Disabled
VLAN Trunk Member Ports :

VID                   : 1                VLAN Name       : default
VLAN Type             : Static           Advertisement  : Enabled
Member Ports          : 1:1-1:8,1:17-1:24,2:1-2:8,2:17-2:24
Static Ports          : 1:1-1:8,1:17-1:24,2:1-2:8,2:17-2:24
Current Tagged Ports  :
Current Untagged Ports: 1:1-1:8,1:17-1:24,2:1-2:8,2:17-2:24
Static Tagged Ports   :
Static Untagged Ports : 1:1-1:8,1:17-1:24,2:1-2:8,2:17-2:24
Forbidden Ports       :

VID                   : 2                VLAN Name       : v2
VLAN Type             : Static           Advertisement  : Disabled
Member Ports          : 1:9-1:16,1:23-1:24,2:9-2:16,2:23-2:24
Static Ports          : 1:9-1:16,1:23-1:24,2:9-2:16,2:23-2:24
Current Tagged Ports  : 1:23-1:24,2:23-2:24
Current Untagged Ports: 1:9-1:16,2:9-2:16
Static Tagged Ports   : 1:23-1:24,2:23-2:24
Static Untagged Ports : 1:9-1:16,2:9-2:16
Forbidden Ports       :

Total Static VLAN Entries: 2
Total GVRP VLAN Entries: 0

DGS-3120-24TC:admin#
```