

How to use NET-SNMP – VLAN

1. Create VLAN and add port number.

For Example:

create vlan 123

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config vlan 123 add tagged 5
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config vlan 123 add untagged 7
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config vlan 123 add forbidden 9
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In the MIB, port member is present by bitmap, for ex, first byte of "dot1qVlanStaticEgressPorts" is 0x0A, which means

port	1234	5678
	0000	1010

Port 5 and 7 are configured as static egress ports.

Here are the rules:

tagged port: **configure dot1qVlanStaticEgressPorts**

untagged port: **configure dot1qVlanStaticEgressPorts** and

dot1qVlanStaticUntaggedPorts

forbidden port: **configure dot1qVlanForbiddenEgressPorts**

OID for VLAN

Module:	Q-BRIDGE-MIB
Name:	dot1qVlanStaticEntry
Type:	OBJECT-TYPE
OID:	1.3.6.1.2.1.17.7.1.4.3.1
Full path:	iso(1).org(3).dod(6).internet(1).mngmt(2).mib-2(1).dot1dBridge(17).qBridgeMIB
Module:	Q-BRIDGE-MIB
Parent:	dot1qVlanStatic Table
First child:	dot1qVlanStaticName
Numerical syntax:	Null
Base syntax:	Dot1qVlanStaticEntry
Composed syntax:	Dot1qVlanStaticEntry
Status:	current
Max access:	not-accessible
Sequences:	1: dot1qVlanStaticName - SnmpAdminString(4 - octets) 2: dot1qVlanStaticEgressPorts - PortList(4 - octets) 3: dot1qVlanForbiddenEgressPorts - PortList(4 - octets) 4: dot1qVlanStaticUntaggedPorts - PortList(4 - octets) 5: dot1qVlanStaticRowStatus - RowStatus(2 - int, int32)
Indexes:	1: dot1qVlanIndex
Description:	Static information for a VLAN configured into the device by (local or network) management.

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Module: Q-BRIDGE-MIB	
Name:	dot1qVlanStaticName
Type:	OBJECT-TYPE
OID:	1.3.6.1.2.1.17.7.1.4.3.1.1
Full path:	iso(1).org(3).dod(6).internet(1).mgmt(2).mib-2(1).dot1dBridge(17).qBridgeMIB
Module:	Q-BRIDGE-MIB
Parent:	dot1qVlanStaticEntry
Next sibling:	dot1qVlanStaticEgressPorts
Numerical syntax:	Octets
Base syntax:	OCTET STRING
Composed syntax:	SnmpAdminString
Status:	current
Max access:	read-create
Size list:	1..32
Reference:	IEEE 802.1Q/D11 Section 12.10.2.1
Description:	An administratively assigned string, which may be used to identify the VLAN.

Module: Q-BRIDGE-MIB	
Name:	dot1qVlanStaticEgressPorts
Type:	OBJECT-TYPE
OID:	1.3.6.1.2.1.17.7.1.4.3.1.2
Full path:	iso(1).org(3).dod(6).internet(1).mgmt(2).mib-2(1).dot1dBridge(17).qBridge1
Module:	Q-BRIDGE-MIB
Parent:	dot1qVlanStaticEntry
Prev sibling:	dot1qVlanStaticName
Next sibling:	dot1qVlanForbiddenEgressPorts
Numerical syntax:	Octets
Base syntax:	OCTET STRING
Composed syntax:	PortList
Status:	current
Max access:	read-create
Reference:	IEEE 802.1Q/D11 Section 12.7.7.3, 11.2.3.2.3
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.

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Module: Q-BRIDGE-MIB	
Name:	dot1qVlanForbiddenEgressPorts
Type:	OBJECT-TYPE
OID:	1.3.6.1.2.1.17.7.1.4.3.1.3
Full path:	iso(1).org(3).dod(6).internet(1).mgmt(2).mib-2(1).dot1dBridge(17).qBridge1
Module:	Q-BRIDGE-MIB
Parent:	dot1qVlanStaticEntry
Prev sibling:	dot1qVlanStaticEgressPorts
Next sibling:	dot1qVlanStaticUntaggedPorts
Numerical syntax:	Octets
Base syntax:	OCTET STRING
Composed syntax:	PortList
Status:	current
Max access:	read-create
Reference:	IEEE 802.1Q/D11 Section 12.7.7.3, 11.2.3.2.3
Description:	The set of ports which are prohibited by management from being included in the egress list for this VLAN. 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,

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Module: Q-BRIDGE-MIB	
Name:	dot1qVlanStaticUntaggedPorts
Type:	OBJECT-TYPE
OID:	1.3.6.1.2.1.17.7.1.4.3.1.4
Full path:	iso(1).org(3).dod(6).internet(1).mngmt(2).mib-2(1).dot1dBridge(17).qBridge1
Module:	Q-BRIDGE-MIB
Parent:	dot1qVlanStaticEntry
Prev sibling:	dot1qVlanForbiddenEgressPorts
Next sibling:	dot1qVlanStaticRowStatus
Numerical syntax:	Octets
Base syntax:	OCTET STRING
Composed syntax:	PortList
Status:	current
Max access:	read-create
Reference:	IEEE 802.1Q/D11 Section 12.10.2.1
Description:	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

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Module: Q-BRIDGE-MIB	
Name:	dot1qVlanStaticRowStatus
Type:	OBJECT-TYPE
OID:	1.3.6.1.2.1.17.7.1.4.3.1.5
Full path:	iso(1).org(3).dod(6).internet(1).mgmt(2).mib-2(1).dot1dBridge(17).qBridgeMIB
Module:	Q-BRIDGE-MIB
Parent:	dot1qVlanStaticEntry
Prev sibling:	dot1qVlanStaticUntaggedPorts
Numerical syntax:	Integer (32 bit)
Base syntax:	INTEGER
Composed syntax:	RowStatus
Status:	current
Max access:	read-create
Description:	This object indicates the status of this entry.

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