

How to use NETSNMP – Configure Bandwidth Control in DES-3528_F/W_R2.21 series

The OIDs for configuring Bandwidth Control in DES-3528_F/W_R2.21 series are defined in “QoS-MIB”.

swQoSBandwidthControlTable

The screenshot shows the MIB Tree on the left with 'swQoSBandwidthControlTable' selected. The right pane displays the following properties:

Object name	swQoSBandwidthControlTable
Object ID	1.3.6.1.4.1.171.12.61.3.1
Module	QoS-MIB
Base syntax	Sequence Of swQoSBandwidthControlEntry
Access	Not_Accessible
Status	Current
Sequence	1:swQoSBandwidthPort - Integer 2:swQoSBandwidthRxRate - Integer 3:swQoSBandwidthTxRate - Integer 4:swQoSBandwidthRadmsRxRate - Integer 5:swQoSBandwidthRadmsTxRate - Integer
Parent node	swQoS Mgmt
First child	swQoSBandwidthControlEntry
Description	

swQoSBandwidthControlEntry

The screenshot shows the MIB Tree on the left with 'swQoSBandwidthControlEntry' selected. The right pane displays the following properties:

Object name	swQoSBandwidthControlEntry
Object ID	1.3.6.1.4.1.171.12.61.3.1.1
Module	QoS-MIB
Base syntax	Sequence
Access	Not_Accessible
Status	Current
Index	1:swQoSBandwidthPort
Parent node	swQoSBandwidthControlTable
First child	swQoSBandwidthPort
Description	A list of information contained in the swQoSBandwidthControlTable.

swQoSBandwidthPort

The screenshot shows the MIB Tree on the left with the following structure:

- iso
 - swQoS-MIB
 - swQoS-Ctrl
 - swQoS-Info
 - swQoS-Mgmt
 - swQoS-BandwidthControlTable
 - swQoS-BandwidthControlEntry
 - swQoS-BandwidthPort** (selected)
 - swQoS-BandwidthRxRate
 - swQoS-BandwidthTxRate
 - swQoS-BandwidthRadiusRxRate
 - swQoS-BandwidthRadiusTxRate
 - swQoS-SchedulingTable
 - swQoS-SchedulingEntry
 - swQoS-SchedulingPort
 - swQoS-SchedulingClassID
 - swQoS-SchedulingWeight
 - swQoS-SchedulingMechanism
 - swQoS-SchedulingMechanismEffect
 - swQoS8021pDefaultPriorityTable
 - swQoS8021pDefaultPriorityEntry
 - swQoS8021pRadiusPriority
 - swQoS-HoIPreventionMgmt
 - swQoS-HoIPreventionCtrl
 - swQoS-InBandMgmt
 - swQoS-InBandMgmtSetDefPriority
 - swQoS-InBandMgmtPktPriority
 - swQoS8021pColorMapMgmt
 - swQoS8021pColorMapCtrlTable

The Object Properties pane on the right shows the following details for **swQoSBandwidthPort**:

Object name	swQoSBandwidthPort
Object ID	1.3.6.1.4.1.171.12.61.3.1.1.1
Module	QoS-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Only
Status	Current
Parent node	swQoSBandwidthControlEntry
First child	None
Description	Indicates the port number.

swQoSBandwidthRxRate

The screenshot shows the MIB Tree on the left with the following structure:

- iso
 - swQoS-MIB
 - swQoS-Ctrl
 - swQoS-Info
 - swQoS-Mgmt
 - swQoS-BandwidthControlTable
 - swQoS-BandwidthControlEntry
 - swQoS-BandwidthPort
 - swQoS-BandwidthRxRate** (selected)
 - swQoS-BandwidthTxRate
 - swQoS-BandwidthRadiusRxRate
 - swQoS-BandwidthRadiusTxRate
 - swQoS-SchedulingTable
 - swQoS-SchedulingEntry
 - swQoS-SchedulingPort
 - swQoS-SchedulingClassID
 - swQoS-SchedulingWeight
 - swQoS-SchedulingMechanism
 - swQoS-SchedulingMechanismEffect
 - swQoS8021pDefaultPriorityTable
 - swQoS8021pDefaultPriorityEntry
 - swQoS8021pRadiusPriority
 - swQoS-HoIPreventionMgmt
 - swQoS-HoIPreventionCtrl
 - swQoS-InBandMgmt
 - swQoS-InBandMgmtSetDefPriority
 - swQoS-InBandMgmtPktPriority
 - swQoS8021pColorMapMgmt
 - swQoS8021pColorMapCtrlTable

The Object Properties pane on the right shows the following details for **swQoSBandwidthRxRate**:

Object name	swQoSBandwidthRxRate
Object ID	1.3.6.1.4.1.171.12.61.3.1.1.2
Module	QoS-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Write
Status	Current
Value list	1 : 0.0 2 : 64.1024000
Parent node	swQoSBandwidthControlEntry
First child	None
Description	Indicates Rx Rate of the specified port. Value 0 means no limit.

swQoSBandwidthTxRate

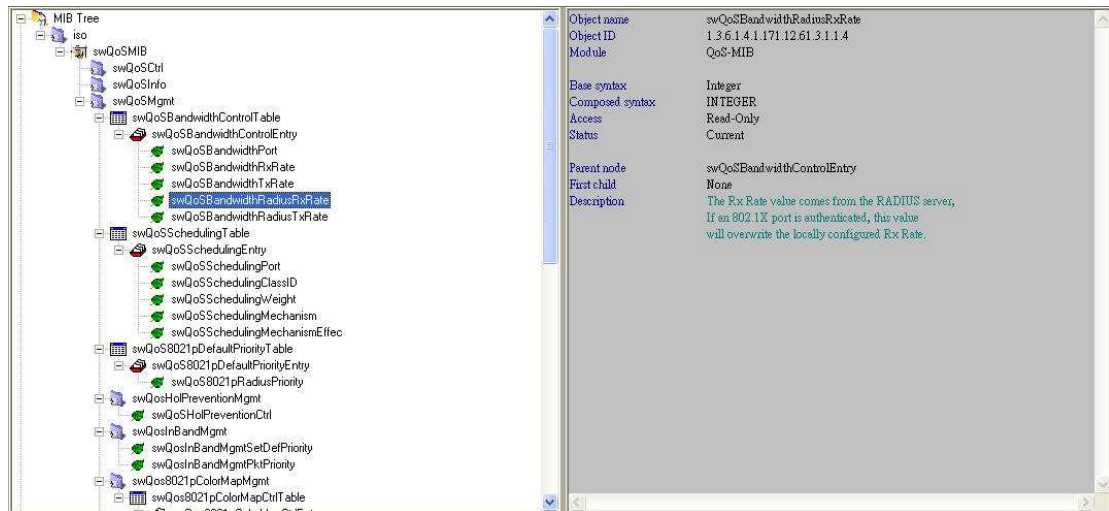
The screenshot shows the MIB Tree on the left with the following structure:

- iso
 - swQoS-MIB
 - swQoS-Ctrl
 - swQoS-Info
 - swQoS-Mgmt
 - swQoS-BandwidthControlTable
 - swQoS-BandwidthControlEntry
 - swQoS-BandwidthPort
 - swQoS-BandwidthRxRate
 - swQoS-BandwidthTxRate** (selected)
 - swQoS-BandwidthRadiusRxRate
 - swQoS-BandwidthRadiusTxRate
 - swQoS-SchedulingTable
 - swQoS-SchedulingEntry
 - swQoS-SchedulingPort
 - swQoS-SchedulingClassID
 - swQoS-SchedulingWeight
 - swQoS-SchedulingMechanism
 - swQoS-SchedulingMechanismEffect
 - swQoS8021pDefaultPriorityTable
 - swQoS8021pDefaultPriorityEntry
 - swQoS8021pRadiusPriority
 - swQoS-HoIPreventionMgmt
 - swQoS-HoIPreventionCtrl
 - swQoS-InBandMgmt
 - swQoS-InBandMgmtSetDefPriority
 - swQoS-InBandMgmtPktPriority
 - swQoS8021pColorMapMgmt
 - swQoS8021pColorMapCtrlTable

The Object Properties pane on the right shows the following details for **swQoSBandwidthTxRate**:

Object name	swQoSBandwidthTxRate
Object ID	1.3.6.1.4.1.171.12.61.3.1.1.3
Module	QoS-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Write
Status	Current
Value list	1 : 0.0 2 : 64.1024000
Parent node	swQoSBandwidthControlEntry
First child	None
Description	Indicates the Tx Rate of the specified port. A value of 0 means no limit.

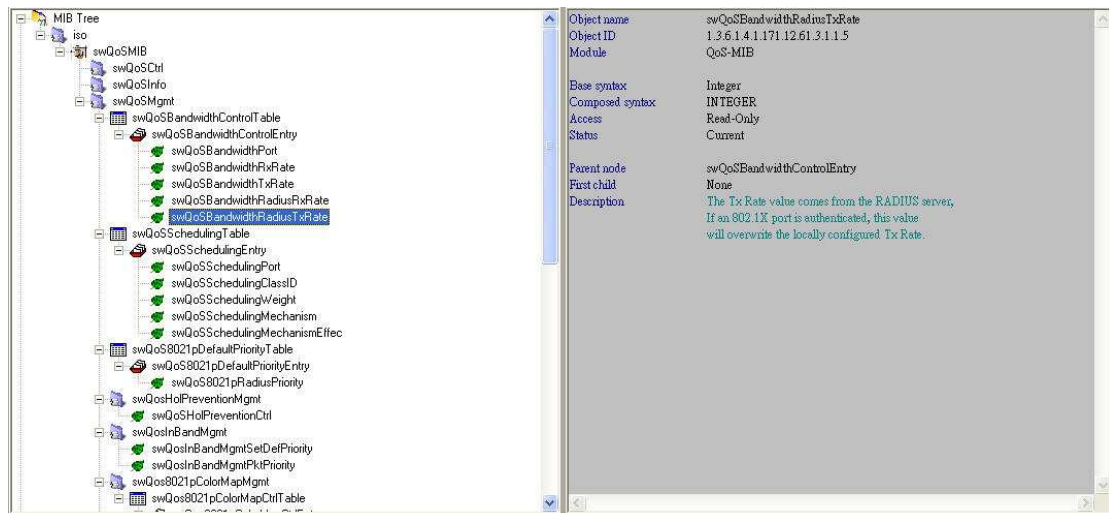
swQoSBandwidthRadiusRxRate



The screenshot shows the MIB Tree on the left and the Object Properties on the right. The MIB Tree is expanded to show the path: iso > swQoS-MIB > swQoS-Mgmt > swQoS-BandwidthControlTable > swQoS-BandwidthControlEntry > swQoS-BandwidthPort > swQoS-BandwidthFixRate > swQoS-BandwidthTxRate > swQoS-BandwidthRadiusRxRate. The Object Properties pane shows the following details:

Object name	swQoSBandwidthRadiusRxRate
Object ID	1.3.6.1.4.1.171.12.61.3.1.1.4
Module	QoS-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Only
Status	Current
Parent node	swQoSBandwidthControlEntry
First child	None
Description	The Rx Rate value comes from the RADIUS server, If an 802.1X port is authenticated, this value will overwrite the locally configured Rx Rate.

swQoSBandwidthRadiusTxRate



The screenshot shows the MIB Tree on the left and the Object Properties on the right. The MIB Tree is expanded to show the path: iso > swQoS-MIB > swQoS-Mgmt > swQoS-BandwidthControlTable > swQoS-BandwidthControlEntry > swQoS-BandwidthPort > swQoS-BandwidthFixRate > swQoS-BandwidthTxRate > swQoS-BandwidthRadiusTxRate. The Object Properties pane shows the following details:

Object name	swQoSBandwidthRadiusTxRate
Object ID	1.3.6.1.4.1.171.12.61.3.1.1.5
Module	QoS-MIB
Base syntax	Integer
Composed syntax	INTEGER
Access	Read-Only
Status	Current
Parent node	swQoSBandwidthControlEntry
First child	None
Description	The Tx Rate value comes from the RADIUS server, If an 802.1X port is authenticated, this value will overwrite the locally configured Tx Rate.

Example : To configure Bandwidth Control by RX rate : 1024Kbps, TX rate : 1024Kbps on port 1 of DES-3528

[NETSNMP command]

```
C:\>snmpset -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.61.3.1.1.1.2.1 i 1024 1  
.3.6.1.4.1.171.12.61.3.1.1.3.1 i 1024
```

Blue : OID for RX rate

Green : OID for TX rate

Red : specify the port number

```
DES-3528 Fast Ethernet Switch
Command Line Interface

Firmware: Build 2.21.B040
Copyright(C) 2009 D-Link Corporation. All rights reserved.
UserName:
Password:

DES-3528:admin#show bandwidth_control 1
Command: show bandwidth_control 1

Bandwidth Control Table
Port    RX Rate    TX Rate    Effective RX    Effective TX
----- (Kbit/sec) (Kbit/sec) (Kbit/sec) ----- (Kbit/sec) -----
1       No Limit   No Limit   No Limit        No Limit

DES-3528:admin#
DES-3528:admin#show bandwidth_control 1
Command: show bandwidth_control 1

Bandwidth Control Table
Port    RX Rate    TX Rate    Effective RX    Effective TX
----- (Kbit/sec) (Kbit/sec) (Kbit/sec) ----- (Kbit/sec) -----
1       1024       1024       1024            1024

C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [版本 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\Jason Chang>cd\

C:\>snmpset -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.12.61.3.1.1.2.1 i 1024 1
.3.6.1.4.1.171.12.61.3.1.1.3.1 i 1024
SNMPv2-SMI::enterprises.171.12.61.3.1.1.2.1 = INTEGER: 1024
SNMPv2-SMI::enterprises.171.12.61.3.1.1.3.1 = INTEGER: 1024

C:\>_
```