

How to use NET-SNMP – MSTP

1. Set VID 100 under MST ID 15

```
# snmpset -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.10.94.89.89.57.6.6.1.3.100 i 15
```

100 → VID

2. Set MST Configuration Name and Revision Level

```
# snmpset -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.10.94.89.89.57.6.11.0 s test  
1.3.6.1.4.1.171.10.94.89.89.57.6.12.0 i 100 1.3.6.1.4.1.171.10.94.89.89.57.6.13.0 i 1
```

3. Edit port priority to 240

```
# snmpset -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.10.94.89.89.57.6.2.1.3.1.1 i 240
```

1.1 → unit 1, port 1

4. Edit port Internal Path Cost to 10000

```
# snmpset -v2c -c private 10.90.90.90 1.3.6.1.4.1.171.10.94.89.89.57.6.2.1.12.1.1 i  
10000
```

OID for MSTP

Module: RADLAN-BRIDGEMIBOBJECTS-MIB

Name:	rldot1sMstpPendingGroup
Type:	OBJECT-TYPE
OID:	1.3.6.1.4.1.171.10.94.89.89.57.6.6.1.3
Full path:	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).dlink(171)
Module:	RADLAN-BRIDGEMIBOBJECTS-MIB
Parent:	rldot1sMstpVlanEntry
Prev sibling:	rldot1sMstpGroup
Numerical syntax:	Integer (32 bit)
Base syntax:	INTEGER
Composed syntax:	INTEGER
Status:	current
Max access:	read-write
Size list:	1: 0..64
Default values:	1: 0 (int)
Reference:	
Description:	Specifid the pending group number this vlan belongs

Module: RADLAN-BRIDGEMIBOBJECTS-MIB

Name:	rldot1sMstpPendingConfigurationName
Type:	OBJECT-TYPE
OID:	1.3.6.1.4.1.171.10.94.89.89.57.6.11
Full path:	iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).dlink(171)
Module:	RADLAN-BRIDGEMIBOBJECTS-MIB
Parent:	rldot1sMstp
Prev sibling:	rldot1sMstpRegionalRootCost
Next sibling:	rldot1sMstpPendingRevisionLevel
Numerical syntax:	Octets
Base syntax:	OCTET STRING
Composed syntax:	SnmpAdminString
Status:	current
Max access:	read-write
Size list:	1: 1..32
Description:	The pending configuration name.

Module: RADLAN-BRIDGEMIBOBJECTS-MIB

Name: rldot1sMstpPendingRevisionLevel
Type: OBJECT-TYPE
OID: 1.3.6.1.4.1.171.10.94.89.89.57.6.12
Full path: iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).dlink(171).RADLAN-BRIDGEMIBOBJECTS-MIB
Module: RADLAN-BRIDGEMIBOBJECTS-MIB

Parent: rldot1sMstp
Prev sibling: rldot1sMstpPendingConfigurationName
Next sibling: rldot1sMstpPendingAction

Numerical syntax: Integer (32 bit)
Base syntax: INTEGER
Composed syntax: INTEGER
Status: current
Max access: read-write
Size list: 1: 0.65535
Default values: 1: 0 (int)

Description: The pending revision level.

Module: RADLAN-BRIDGEMIBOBJECTS-MIB

Name: rldot1sMstpPendingAction
Type: OBJECT-TYPE
OID: 1.3.6.1.4.1.171.10.94.89.89.57.6.13
Full path: iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).dlink(171).RADLAN-BRIDGEMIBOBJECTS-MIB
Module: RADLAN-BRIDGEMIBOBJECTS-MIB

Parent: rldot1sMstp
Prev sibling: rldot1sMstpPendingRevisionLevel
Next sibling: rldot1sMstpRemainingHops

Numerical syntax: Integer (32 bit)
Base syntax: INTEGER
Composed syntax: INTEGER
Status: current
Max access: read-write
Value list: 1: copyPendingActive(1)
2: copyActivePending(2)

Description: The action to be done with the pending configuration
copyPendingActive - to copy the pending mst configur
copyActivePending - to copy the active mst configura

D-Link Switch: DGS-3100

Module: RADLAN-BRIDGEMIBOBJECTS-MIB

Name: rldot1sMstpInstancePortMstfId
Type: OBJECT-TYPE
OID: 1.3.6.1.4.1.171.10.94.89.89.57.6.2.1.1
Full path: iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).dlink(171)
Module: RADLAN-BRIDGEMIBOBJECTS-MIB

Parent: rldot1sMstpInstancePortEntry
Next sibling: rldot1sMstpInstancePortPort

Numerical syntax: Integer (32 bit)
Base syntax: INTEGER
Composed syntax: INTEGER
Status: current
Max access: read-only
Size list: 1:1..64

Reference: IEEE 802.1s/D11-2001

Description: The Vlan group number that the port belongs to, and contains Spanning Tree Protocol management information.

Module: RADLAN-BRIDGEMIBOBJECTS-MIB

Name: rldot1sMstpInstancePortPort
Type: OBJECT-TYPE
OID: 1.3.6.1.4.1.171.10.94.89.89.57.6.2.1.2
Full path: iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).dlink(171)
Module: RADLAN-BRIDGEMIBOBJECTS-MIB

Parent: rldot1sMstpInstancePortEntry
Prev sibling: rldot1sMstpInstancePortMstfId
Next sibling: rldot1sMstpInstancePortPriority

Numerical syntax: Integer (32 bit)
Base syntax: INTEGER
Composed syntax: INTEGER
Status: current
Max access: read-only
Size list: 1:1..4096

Reference: IEEE 802.1t/D2-1999: Section 9.2.6

Description: The port number of the port for which this entry contains Spanning Tree Protocol management information.

Module: RADLAN-BRIDGEMIBOBJECTS-MIB

Name: rldot1sMstpInstancePortPriority
 Type: OBJECT-TYPE
 OID: 1.3.6.1.4.1.171.10.94.89.89.57.6.2.1.3
 Full path: iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).dlink(171).RADLAN-BRIDGEMIBOBJECTS-MIB
 Module: RADLAN-BRIDGEMIBOBJECTS-MIB

Parent: rldot1sMstpInstancePortEntry
 Prev sibling: rldot1sMstpInstancePortPort
 Next sibling: rldot1sMstpInstancePortState

Numerical syntax: Integer (32 bit)
 Base syntax: INTEGER
 Composed syntax: INTEGER
 Status: current
 Max access: read-write
 Size list: 1: 0..240

Reference: IEEE 802.1t/D2-1999: Section 9.2.6

Description: The value of the priority field which is contained in the more significant 4 bits of the most significant octet of the (2 octet long) Port ID. The value is a product of 16. The other octet of the Port ID is given by the value of rldot1dStpVlanGroupPort.

Module: RADLAN-BRIDGEMIBOBJECTS-MIB

Name: rldot1sMstpInstancePortState
 Type: OBJECT-TYPE
 OID: 1.3.6.1.4.1.171.10.94.89.89.57.6.2.1.4
 Full path: iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).dlink(171).RADLAN-BRIDGEMIBOBJECTS-MIB
 Module: RADLAN-BRIDGEMIBOBJECTS-MIB

Parent: rldot1sMstpInstancePortEntry
 Prev sibling: rldot1sMstpInstancePortPriority
 Next sibling: rldot1sMstpInstancePortEnable

Numerical syntax: Integer (32 bit)
 Base syntax: INTEGER
 Composed syntax: INTEGER
 Status: current
 Max access: read-only
 Value list: 1: disabled(1)
 2: blocking(2)
 3: listening(3)
 4: learning(4)
 5: forwarding(5)
 6: broken(6)

Reference: IEEE 802.1D-1990: Section 4.5.5.2

Description: The port's current state as defined by application of the Spanning Tree Protocol. This state controls what action a port takes on reception of a frame.

Module: RADLAN-BRIDGEMIBOBJECTS-MIB

Name: rldot1sMstpInstancePortEnable
 Type: OBJECT-TYPE
 OID: 1.3.6.1.4.1.171.10.94.89.89.57.6.2.1.5
 Full path: iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).dlink(171).RADLAN-BRIDGEMIBOBJECTS-MIB
 Module: RADLAN-BRIDGEMIBOBJECTS-MIB

Parent: rldot1sMstpInstancePortEntry
 Prev sibling: rldot1sMstpInstancePortState
 Next sibling: rldot1sMstpInstancePortPathCost

Numerical syntax: Integer (32 bit)
 Base syntax: INTEGER
 Composed syntax: INTEGER
 Status: current
 Max access: read-only
 Value list: 1: enabled(1)
 2: disabled(2)

Reference: IEEE 802.1D-1990: Section 4.5.5.2

Description: The enabled/disabled status of the port.

Module: RADLAN-BRIDGEMIBOBJECTS-MIB

Name: rldot1sMstpInstancePortPathCost
 Type: OBJECT-TYPE
 OID: 1.3.6.1.4.1.171.10.94.89.89.57.6.2.1.6
 Full path: iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).dlink(171).RADLAN-BRIDGEMIBOBJECTS-MIB
 Module: RADLAN-BRIDGEMIBOBJECTS-MIB

Parent: rldot1sMstpInstancePortEntry
 Prev sibling: rldot1sMstpInstancePortEnable
 Next sibling: rldot1sMstpInstancePortDesignatedRoot

Numerical syntax: Integer (32 bit)
 Base syntax: INTEGER
 Composed syntax: INTEGER
 Status: current
 Max access: read-only
 Size list: 1: 1..200000000

Reference: IEEE 802.1D-1990: Section 4.5.5.3

Description: The contribution of this port to the path cost of paths towards the spanning tree root which include this port. 802.1D-1990 recommends that the default value of this parameter be in inverse proportion to the speed of the attached LAN.

Module: RADLAN-BRIDGEMIBOBJECTS-MIB

Name: rldot1sMstpInstancePortDesignatedRoot
Type: OBJECT-TYPE
OID: 1.3.6.1.4.1.171.10.94.89.89.57.6.2.1.7
Full path: iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).dlink(171).RADLAN-BRIDGEMIBOBJECTS-MIB
Module: RADLAN-BRIDGEMIBOBJECTS-MIB

Parent: rldot1sMstpInstancePortEntry
Prev sibling: rldot1sMstpInstancePortPathCost
Next sibling: rldot1sMstpInstancePortDesignatedCost

Numerical syntax: Octets
Base syntax: OCTET STRING
Composed syntax: BridgeId
Status: current
Max access: read-only

Reference: IEEE 802.1D-1990: Section 4.5.5.4

Description: The unique Bridge Identifier of the Bridge recorded as the Root in the Configuration BPDUs transmitted by the Designated Bridge for the segment to which the port is attached.

Module: RADLAN-BRIDGEMIBOBJECTS-MIB

Name: rldot1sMstpInstancePortDesignatedCost
Type: OBJECT-TYPE
OID: 1.3.6.1.4.1.171.10.94.89.89.57.6.2.1.8
Full path: iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).dlink(171).RADLAN-BRIDGEMIBOBJECTS-MIB
Module: RADLAN-BRIDGEMIBOBJECTS-MIB

Parent: rldot1sMstpInstancePortEntry
Prev sibling: rldot1sMstpInstancePortDesignatedRoot
Next sibling: rldot1sMstpInstancePortDesignatedBridge

Numerical syntax: Integer (32 bit)
Base syntax: INTEGER
Composed syntax: INTEGER
Status: current
Max access: read-only

Reference: IEEE 802.1D-1990: Section 4.5.5.5

Description: The path cost of the Designated Port of the segment connected to this port. This value is compared to the Root Path Cost field in received bridge PDUs.

D-Link Switch: DGS-3100

Module: RADLAN-BRIDGEMIBOBJECTS-MIB

Name: rldot1sMstpInstancePortDesignatedBridge
Type: OBJECT-TYPE
OID: 1.3.6.1.4.1.171.10.94.89.89.57.6.2.1.9
Full path: iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).dlink(171).RADLAN-BRIDGEMIBOBJECTS-MIB
Module: RADLAN-BRIDGEMIBOBJECTS-MIB

Parent: rldot1sMstpInstancePortEntry
Prev sibling: rldot1sMstpInstancePortDesignatedCost
Next sibling: rldot1sMstpInstancePortDesignatedPort

Numerical syntax: Octets
Base syntax: OCTET STRING
Composed syntax: BridgeId
Status: current
Max access: read-only

Reference: IEEE 802.1D-1990: Section 4.5.5.6

Description: The Bridge Identifier of the bridge which this port considers to be the Designated Bridge for this port's segment.

Module: RADLAN-BRIDGEMIBOBJECTS-MIB

Name: rldot1sMstpInstancePortDesignatedPort
Type: OBJECT-TYPE
OID: 1.3.6.1.4.1.171.10.94.89.89.57.6.2.1.10
Full path: iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).dlink(171).RADLAN-BRIDGEMIBOBJECTS-MIB
Module: RADLAN-BRIDGEMIBOBJECTS-MIB

Parent: rldot1sMstpInstancePortEntry
Prev sibling: rldot1sMstpInstancePortDesignatedBridge
Next sibling: rldot1sMstpInstancePortForwardTransitions

Numerical syntax: Octets
Base syntax: OCTET STRING
Composed syntax: OCTET STRING
Status: current
Max access: read-only
Size list: 1:2

Reference: IEEE 802.1D-1990: Section 4.5.5.7

Description: The Port Identifier of the port on the Designated Bridge for this port's segment.

D-Link Switch: DGS-3100

Module: RADLAN-BRIDGEMIBOBJECTS-MIB

Name: rldot1sMstpInstancePortForwardTransitions
Type: OBJECT-TYPE
OID: 1.3.6.1.4.1.171.10.94.89.89.57.6.2.1.11
Full path: iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).dlink(171)
Module: RADLAN-BRIDGEMIBOBJECTS-MIB

Parent: rldot1sMstpInstancePortEntry
Prev sibling: rldot1sMstpInstancePortDesignatedPort
Next sibling: rldot1sMstpInstancePortAdminPathCost

Numerical syntax: Counter (32 bit)
Base syntax: Counter
Composed syntax: Counter
Status: current
Max access: read-only

Description: The number of times this port has transitioned from the Learning state to the Forwarding state.

Module: RADLAN-BRIDGEMIBOBJECTS-MIB

Name: rldot1sMstpInstancePortAdminPathCost
Type: OBJECT-TYPE
OID: 1.3.6.1.4.1.171.10.94.89.89.57.6.2.1.12
Full path: iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).dlink(171)
Module: RADLAN-BRIDGEMIBOBJECTS-MIB

Parent: rldot1sMstpInstancePortEntry
Prev sibling: rldot1sMstpInstancePortForwardTransitions
Next sibling: rldot1sMstpInstancePortRole

Numerical syntax: Integer (32 bit)
Base syntax: INTEGER
Composed syntax: INTEGER
Status: current
Max access: read-write
Size list: 1:0.200000000

Reference: IEEE 802.1D-1998: Section 8.5.5.3

Description: The administratively assigned value for the contribution of this port to the path cost of paths towards the tree root.

Writing a value of '0' assigns the automatically default Path Cost value to the port. If the default Cost is being used, this object returns '0' when

D-Link Switch: DGS-3100

Module: RADLAN-BRIDGEMIBOBJECTS-MIB

Name: rldot1sMstpInstancePortRole
Type: OBJECT-TYPE
OID: 1.3.6.1.4.1.171.10.94.89.89.57.6.2.1.13
Full path: iso(1).org(3).dod(6).internet(1).private(4).enterprises(1).dlink(171)
Module: RADLAN-BRIDGEMIBOBJECTS-MIB

Parent: rldot1sMstpInstancePortEntry
Prev sibling: rldot1sMstpInstancePortAdminPathCost

Numerical syntax: Integer (32 bit)
Base syntax: INTEGER
Composed syntax: INTEGER
Status: current
Max access: read-only
Value list:
1: unknown(0)
2: disabled(1)
3: alternate(2)
4: backup(3)
5: root(4)
6: designated(5)
7: master(6)

Reference:

Description: Specify the role of this this port.