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

D-Link Switch: DGS-3100

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 belonges

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.

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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)
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)
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

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Module: RADLAN-BRIDGEMIBOBJECTS-MIB

Name:	rldot1sMstpInstancePortMstiId
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:	rldot1sMstpInstancePortMstiId
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)
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 mos 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(
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 applicatio the Spanning Tree Protocol. This state controls w action a port takes on reception of a frame.

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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)
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)
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.

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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)
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)
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.

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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)
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)
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.

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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(
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 contr 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 defa Cost is being used, this object returns '0' when

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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.