NETWORK SWITCHING FEATURES

PROTECTED PORT

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Contents

Functional Description

A protected port is a port on a switch that is configured not to forward any traffic to any other port. No traffic at Layer 2 can be forwarded between ports on the same switch if both are configured as protected ports. It is also known as layer 2 isolation.

When you have many users and devices connected to your switches and routers, there are many situations where you don't want just any port to be able to monitor the activity of another port. Unicast, broadcast or multicast traffic is all blocked between ports that are protected. A protected port can send traffic to unprotected ports.

Here's how protected port works on a switch:

- o **Isolation:** Protected ports isolate traffic from other protected ports on the switch.
- o **Prevents Direct Communication:** Traffic between devices connected to protected ports cannot directly communicate with each other.
- o **Allows Communication with Normal Ports:** Devices connected to protected ports can still communicate with devices connected to non-protected (normal) ports.
- o **Enhanced Security:** Helps prevent unauthorized access and restricts communication between specific devices.

Protected Ports in QN Switches

Commands outline

Use the switchport protected-port Interface Configuration mode command to isolate Unicast, Multicast, and Broadcast traffic at Layer 2 from other protected ports on the same switch.

switch(config)#interface gi1/0/1

switch(config-if)# switchport protected-port

Use the no form of this command to disable protection on the port.

switch(config-if)#no switchport protected-port

Use The show interfaces protected-ports EXEC mode command to display protected ports configuration.

switch# show interfaces protected-ports

Interface	State	Community
te1/0/1	protected	1
te1/0/2	Protected	Isolated
te1/0/3	Unprotected	20
te1/0/4	Unprotected	Isolated

Configuration Steps

Let's consider that we are applying switchport protected on interface gi1/0/23 and gig1/0/24 as shown in figure 1.
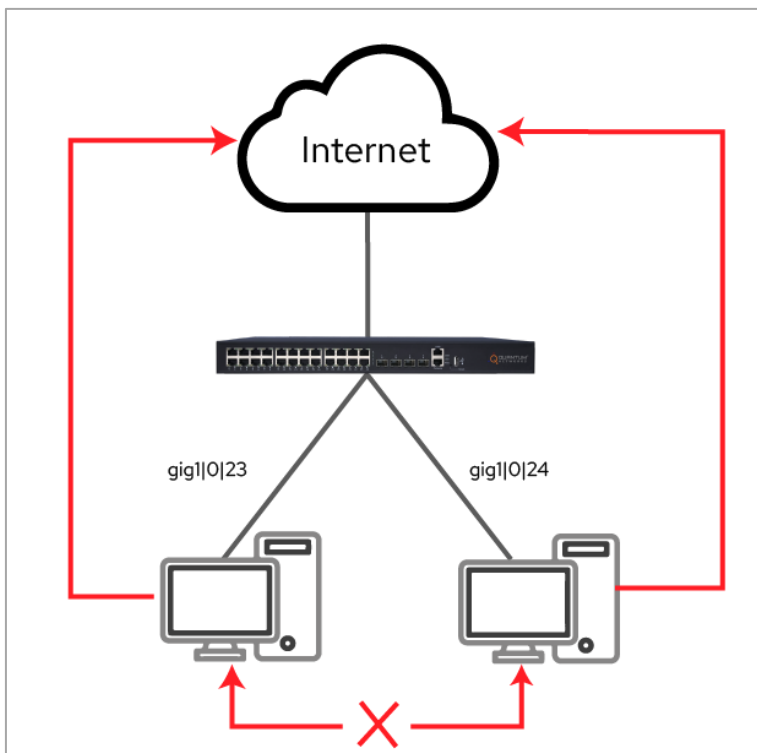

Figure 1

Navigate to the interface to configure GigabitEthernet1/0/23.

console(config)#interface GigabitEthernet1/0/23

Use the switchport protected-port Interface Configuration mode command to isolate Unicast, Multicast, and Broadcast traffic at Layer 2 from other protected ports on the switch.

console(config-if)#switchport protected-port

Now, navigate to the interface to configure GigabitEthernet1/0/24.

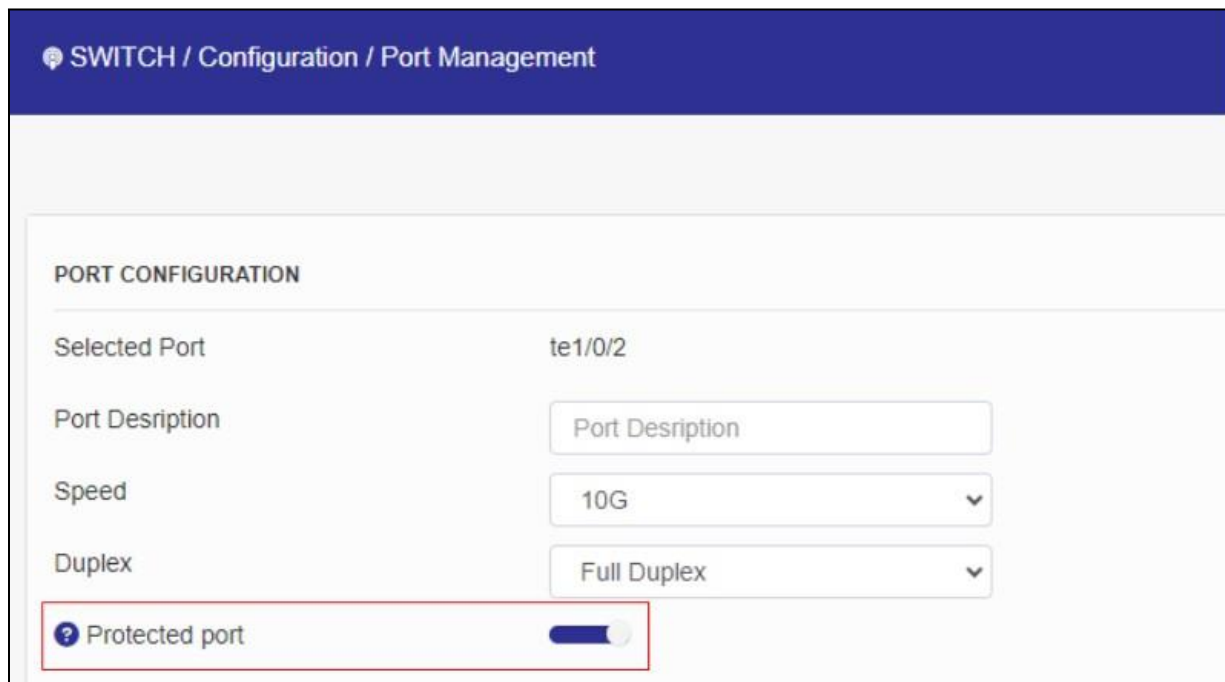*console(config)#interface GigabitEthernet1/0/24*

Again use the switchport protected-port Interface Configuration mode command to isolate Unicast, Multicast, and Broadcast traffic at Layer 2 from other protected ports on the switch.

console(config-if)#switchport protected-port

Protected Port in GUI

To enable protected port in GUI Go to Switch > Configuration > Port Management.

You will see the shield icon after you enable the protected port.

# ▲	☐	Interface	Port Status	Admin Status
1	☐	te1/0/1	↑ PLUGGED	↑ ACTIVE
2	☐	te1/0/2 🛡	↓ UNPLUGGED	↑ ACTIVE
3	☐	te1/0/3	↓ UNPLUGGED	↑ ACTIVE

Notes & Limitations
- o Mirrored traffic is not subject to protected ports rules.
- o Routing is not affected by the protected port forwarding rule. i.e., if a packet enters into a protected port, it can be routed by the device to another protected port.
- o The switch can be managed from a protected port.