Packet Tracer -Configuring Switch Port Security

Topology



1. Addressing Table

|  |  |  |  |
| --- | --- | --- | --- |
| Device | Interface | IP Address | Subnet Mask |
| S1 | VLAN 1 | 10.10.10.2 | 255.255.255.0 |
| PC1 | NIC | 10.10.10.10 | 255.255.255.0 |
| PC2 | NIC | 10.10.10.11 | 255.255.255.0 |
| Rogue Laptop | NIC | 10.10.10.12 | 255.255.255.0 |

1. Objective

Part 1: Configure Port Security

Part 2: Verify Port Security

1. Background

In this activity, you will configure and verify port security on a switch. Port security allows you to restrict a port’s ingress traffic by limiting the MAC addresses that are allowed to send traffic into the port.

1. Configure Port Security
	* 1. Access the command line for **S1** and enable port security on Fast Ethernet ports 0/1 and 0/2.

S1(config)#**interface range fa0/1 - 2**

S1(config-if-range)#**switchport port-security**

* + 1. Set the maximum so that only one device can access the Fast Ethernet ports 0/1 and 0/2.

S1(config-if-range)#**switchport port-security maximum 1**

* + 1. Secure the ports so that the MAC address of a device is dynamically learned and added to the running configuration.

S1(config-if-range)#**switchport port-security mac-address sticky**

1. Verify Port Security
	* 1. From **PC1**, ping **PC2**.
		2. Verify port security is enabled and the MAC addresses of **PC1** and **PC2** were added to the running configuration.
		3. Attach **Rogue Laptop** to anyunusedswitchport and notice that the link lights are red.
		4. Enable the port andverify that**Rogue Laptop** can ping**PC1** and **PC2**. After verification, shut down the port connected to **Rogue Laptop.**
		5. Disconnect **PC2** and connect**Rogue Laptop**to **PC2’s** port. Verify that **Rogue Laptop** is unable to ping **PC1**.
		6. Display the port security violations for the port **Rogue Laptop** is connected to.

S1#show port-security interface fa0/2

* + 1. Disconnect **Rouge Laptop** and reconnect **PC2**. Verify **PC2** can ping**PC1**.
		2. Why is **PC2** able to ping **PC1**, but the **Rouge Laptop**is not? The port security that was enabled on the port only allowed the device,whose MAC was learned first, access to the port while preventing all other devices access.