**Net 3068 CCNA Security Name: Andrew Koenig Lab: # 14.3.11**

**Follow the instructions down below for the lab itself. Anything you type on this document needs to be in blue font. Ensure you put your name and lab number at the top of the document (in blue). For the questions right below, answer in complete sentences. If this is a self-grading packet tracer. Ensure you paste the screen shot of your score page at the bottom of this document. Ensure you upload the packet tracer file along with this document. Let the instructor know if you have any questions.**

***Lab Analysis Report***

1. Using complete sentences summarize work you completed during the lab.

I enabled port security on a switch

2. Using complete sentences describe what you learned from the lab. Hint; look at the lab objectives listed at the top of the lab section.

I learned how to implement port security on a switch

***Problems Encountered***

1. Using complete sentences describe any problem(s) experienced during lab.

No problems

2. Using complete sentences describe how you solved your problem(s).

No problems

3. Using complete sentences explain if you needed any assistance with the lab; then list what you learned from that assistance. No problems

Packet Tracer - Implement Port Security

# 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 |

Blank Line - no additional information

# Objective

Part 1: Configure Port Security

Part 2: Verify Port Security

# 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.

## Configure Port Security

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

Open Configuration Window

S1(config)# **interface** **range** **f0/1 – 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. Set the violation mode so that the Fast Ethernet ports 0/1 and 0/2 are not disabled when a violation occurs, but a notification of the security violation is generated and packets from the unknown source are dropped.

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

* + - 1. Disable all the remaining unused ports. Use the **range** keyword to apply this configuration to all the ports simultaneously.

S1(config-if-range)# **interface range f0/3 - 24, g0/1 - 2**

S1(config-if-range)# **shutdown**

## Verify Port Security

* + - 1. From **PC1**, ping **PC2**.
      2. Verify that port security is enabled and the MAC addresses of **PC1** and **PC2** were added to the running configuration.

S1# **show run | begin interface**

* + - 1. Use port-security show commands to display configuration information.

S1# **show port-security**

S1# **show port-security address**

* + - 1. Attach **Rogue Laptop** to any unused switch port and notice that the link lights are red.
      2. Enable the port and verify that **Rogue Laptop** can ping **PC1** and **PC2**. After verification, shut down the port connected to **Rogue Laptop.**
      3. Disconnect **PC2** and connect **Rogue Laptop** to F0/2, which is the port to which PC2 was originally connected. Verify that **Rogue Laptop** is unable to ping **PC1**.
      4. Display the port security violations for the port to which **Rogue Laptop** is connected.

S1# **show port-security interface f0/2**

Close Configuration Window

Question

How many violations have occurred?

Type 1 answers here.

* + - 1. Disconnect **Rouge Laptop** and reconnect **PC2**. Verify **PC2** can ping **PC1**.

Question

Why is **PC2** able to ping **PC1**, but the **Rouge Laptop** is not? Because it is not the mac address that was already learned on the port.

Type your answers here.

End of Document A screenshot of a computer

Description automatically generated