

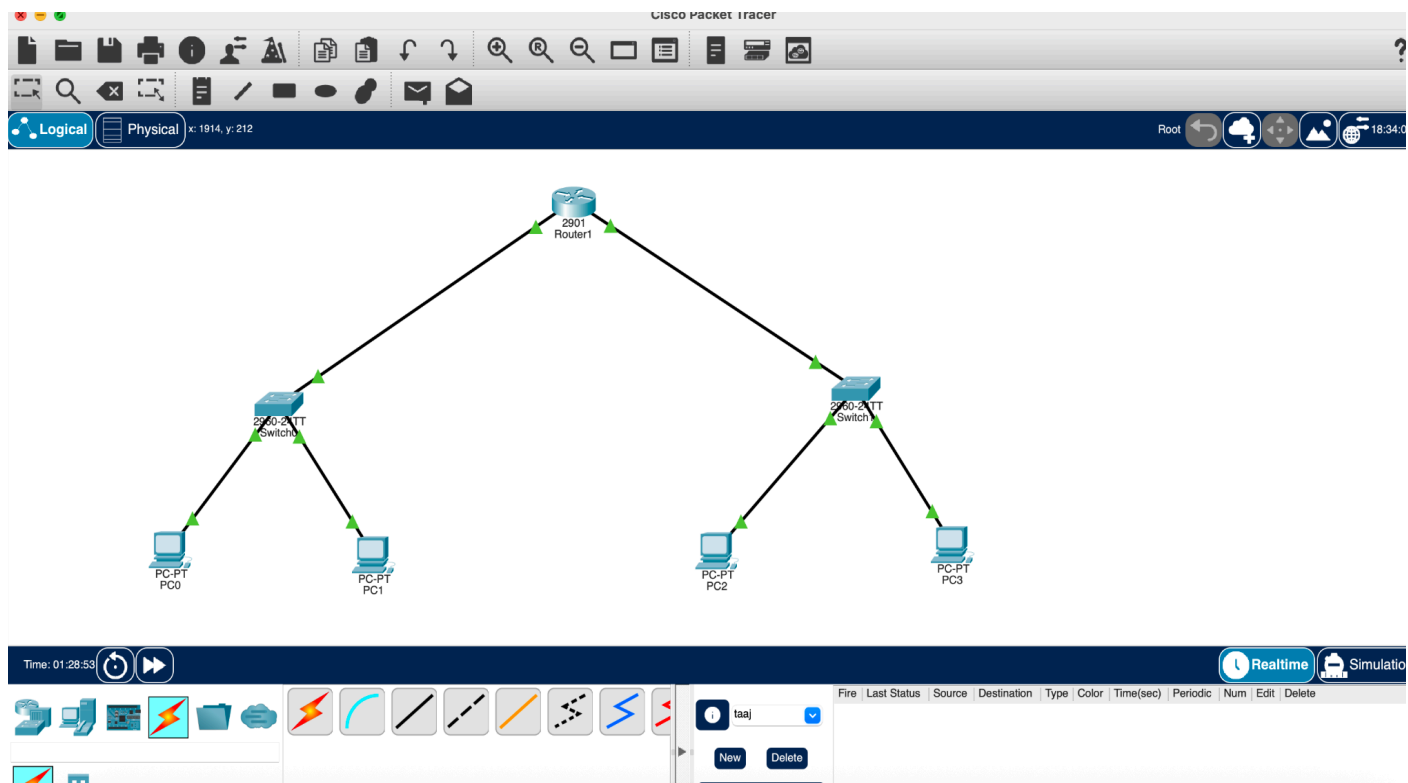
Network Lab Summary - TaZahnae Matthews

In this lab, I completed the following tasks:

- Built a network using a Cisco 2911 router, two Cisco 2960 switches, and four PCs
- Configured IP addresses, router interfaces, and default gateways
- Secured all network devices using console, VTY, and AUX passwords
- Enabled remote management by configuring interface VLAN 1 on both switches
- Verified device and network connectivity using ping and Cisco Packet Tracer

Tools

- 1 Cisco 2911 Router
- 2 Cisco 2960 Switches
- 4 PCs



Green flags on Packet Tracer confirmed active connections between devices!

Key Tasks Completed:

- Assigned IP addresses to all PCs and network interfaces
- Configured default gateways
- Secured devices using console, vty, and aux passwords
- Enabled remote management on both switches using VLAN 1

Device	Interface	IP Address	Subnet Mask	Default Gateway
PC1	NIC	192.168.1.10	255.255.255.0	192.168.1.1
PC2	NIC	192.168.1.11	255.255.255.0	192.168.1.1
PC3	NIC	192.168.2.10	255.255.255.0	192.168.2.1
PC4	NIC	192.168.2.11	255.255.255.0	192.168.2.1
Router	G0/0	192.168.1.1	255.255.255.0	-
Router	G0/1	192.168.2.1	255.255.255.0	-
Switch1	VLAN 1	192.168.1.2	255.255.255.0	192.168.1.1
Switch2	VLAN 1	192.168.2.2	255.255.255.0	192.168.2.1

Physical
Config
CLI
Attributes

IOS Command Line Interface

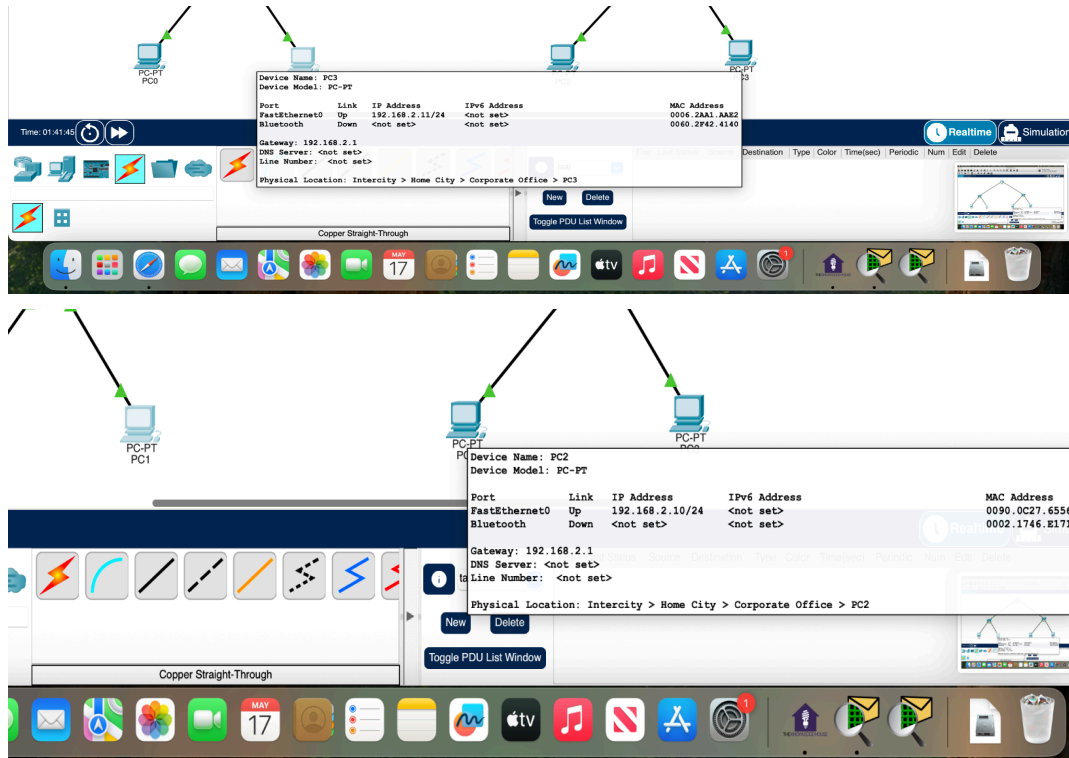
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Switch1(config-if)#
VLINE-S-CHANGED: Interface Vlan1, changed state to up
ALLOTTING-S-UPDOWN: Line protocol on Interface Vlan1, changed state to up
Switch1(config)#ip default-gateway 192.168.2.1
Switch1(config)#line console 0
Switch1(config-line)#password cisco12345
Switch1(config-line)#login
Switch1(config-line)#logging synchronous
Switch1(config-line)#
% Invalid input detected at '^' marker.
Switch1(config-line)#logging synchronous
Switch1(config-line)#exit
Switch1(config)#line vty 0 4
Switch1(config-line)#password vtylpass
Switch1(config-line)#login
Switch1(config-line)#transport input all
Switch1(config-line)#exit
Switch1(config)#interface range fa0/10 -24
Switch1(config-if-range)#shutdown
VLINE-S-CHANGED: Interface FastEthernet0/10, changed state to administratively down
VLINE-S-CHANGED: Interface FastEthernet0/11, changed state to administratively down
VLINE-S-CHANGED: Interface FastEthernet0/12, changed state to administratively down
VLINE-S-CHANGED: Interface FastEthernet0/13, changed state to administratively down
VLINE-S-CHANGED: Interface FastEthernet0/14, changed state to administratively down
VLINE-S-CHANGED: Interface FastEthernet0/15, changed state to administratively down
VLINE-S-CHANGED: Interface FastEthernet0/16, changed state to administratively down
VLINE-S-CHANGED: Interface FastEthernet0/17, changed state to administratively down
VLINE-S-CHANGED: Interface FastEthernet0/18, changed state to administratively down
VLINE-S-CHANGED: Interface FastEthernet0/19, changed state to administratively down
VLINE-S-CHANGED: Interface FastEthernet0/20, changed state to administratively down
VLINE-S-CHANGED: Interface FastEthernet0/21, changed state to administratively down
VLINE-S-CHANGED: Interface FastEthernet0/22, changed state to administratively down
VLINE-S-CHANGED: Interface FastEthernet0/23, changed state to administratively down
VLINE-S-CHANGED: Interface FastEthernet0/24, changed state to administratively down
Switch1(config-if-range)#exit
Switch1(config)#end
Switch1#
NVRAM-COMPLETE: Configured from console by console
Switch1#copy running-config startup-config
Switch1#
% Invalid input detected at '^' marker.
Switch1#copy running-config startup-config
Switch1#
% Invalid input detected at '^' marker.
Switch1#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
Switch1#
Switch1#

```

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Paste

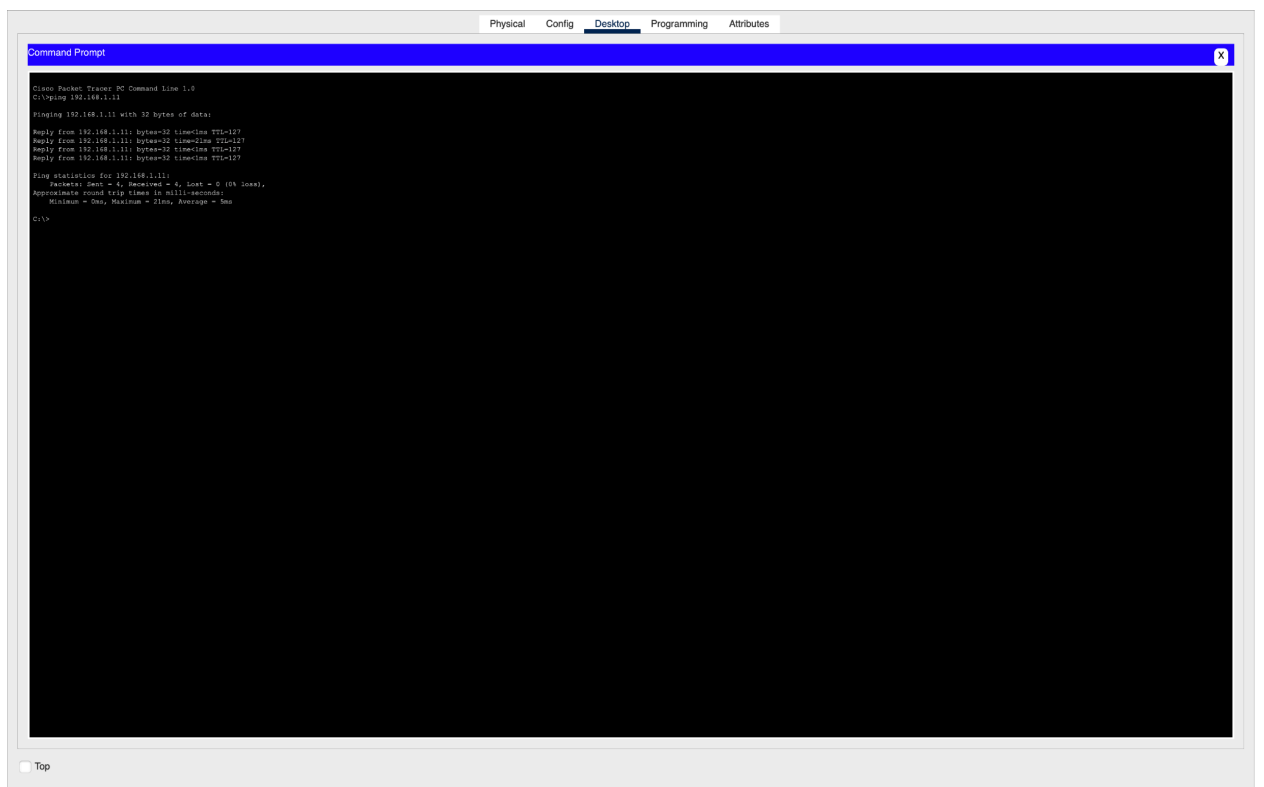
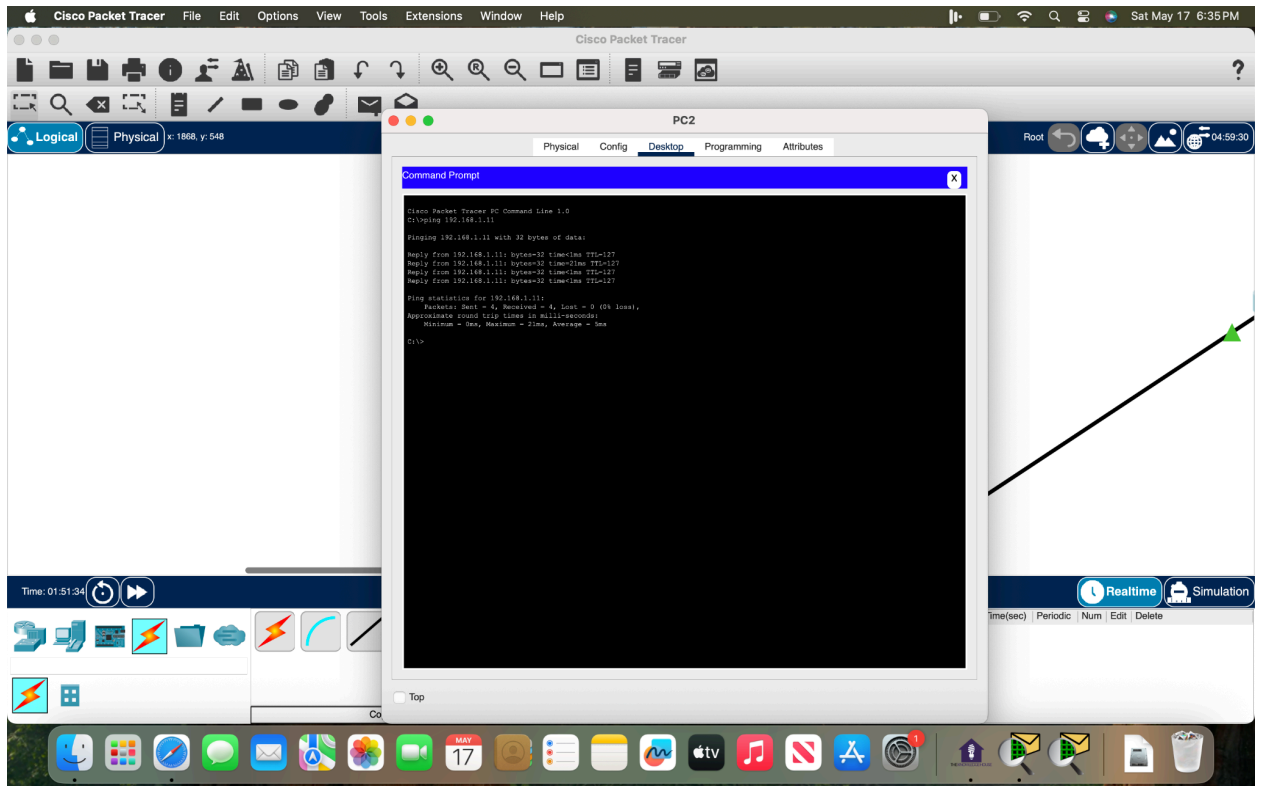
Top



Ping Testing:

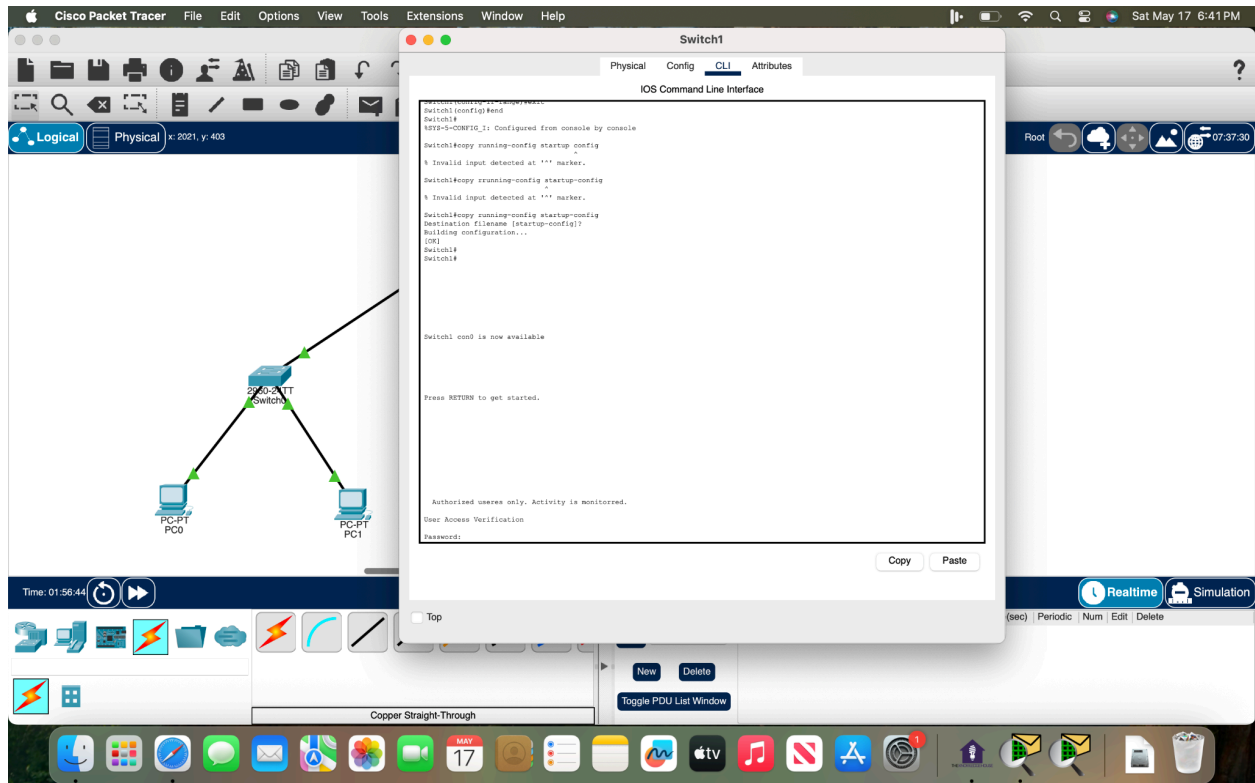
Ping Testing:

- Used the **ping** command from PC desktops to test connectivity
- Successful ping from PC1 to 192.168.1.1 (router interface)
- From PC2, initially received a "Request timed out" but later successfully received a reply from 192.168.2.10, confirming eventual connectivity



Enabled password protection:

- Enabled password protection on the switch CLI to require a password before entering configuration mode, ensuring that only authorized users can change device settings



Challenges Faced:

I initially experienced difficulty saving the switch configurations using the `copy running-config startup-config` command because I was operating in the wrong mode. This was resolved by switching to privileged EXEC mode (`Switch#`). Additionally, although remote management was successfully configured on the devices, I was unable to fully test remote connectivity during this lab session.

Conclusion:

Despite encountering some challenges with command usage and experiencing occasional delays in ping responses, the network was successfully configured and demonstrated fundamental connectivity.

between devices. Further testing of remote management capabilities will be necessary in a future session to ensure full functionality.