Designing a Secure Network Topology (3e)

Network Security, Firewalls, and VPNs, Third Edition - Lab 03

Student: Email:
Udo Udo Williams raggg12@gmail.com

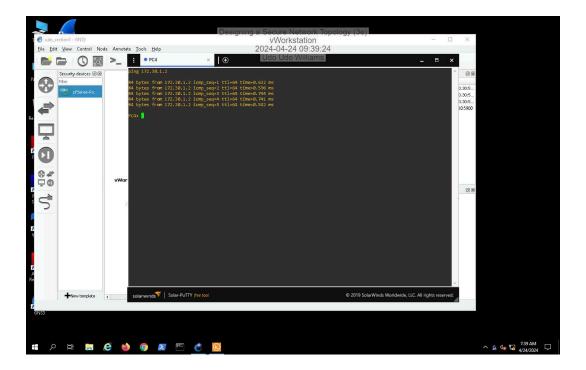
Time on Task: Progress:
23 hours, 32 minutes 100%

Report Generated: Wednesday, April 24, 2024 at 3:54 PM

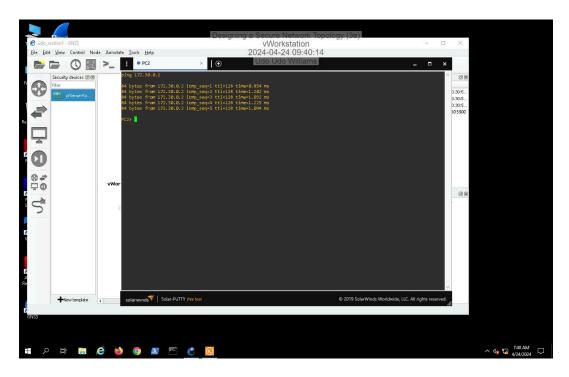
Section 1: Hands-On Demonstration

Part 1: Design a Simple Network Topology

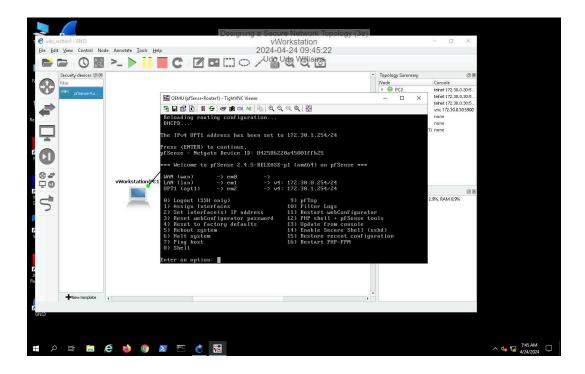
34. Make a screen capture showing the results of the ping attempt from PC4 to PC3.



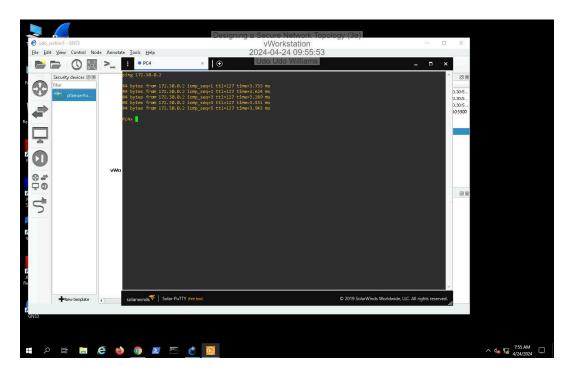
37. Make a screen capture showing the results of the ping attempt from PC2 to the vWorkstation (172.30.0.2).



49. Make a screen capture showing the IP address assignments in the pfSense console.

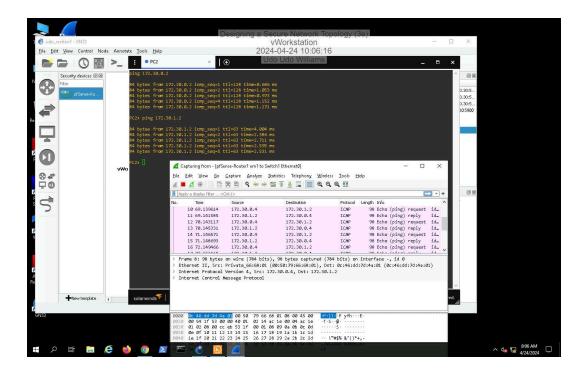


72. Make a screen capture showing the successful ping from PC4 to the vWorkstation.

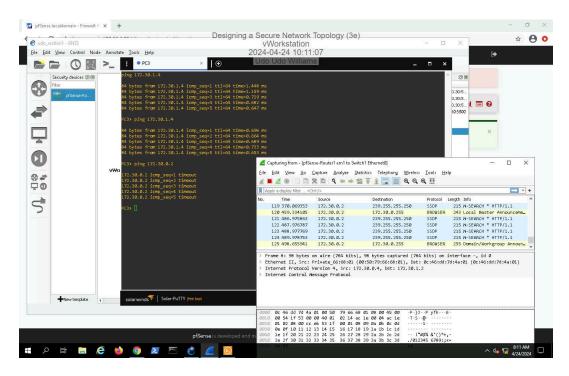


Part 2: Capture Network Traffic to Validate Connectivity

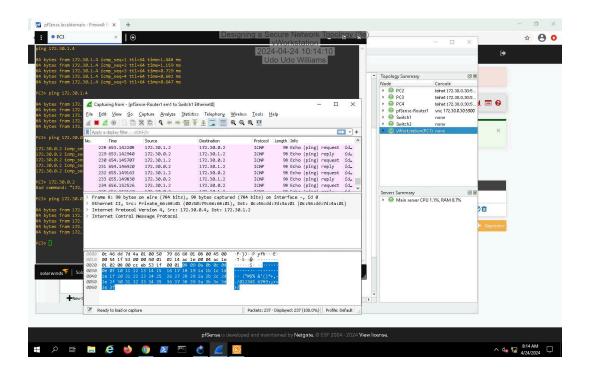
7. Make a screen capture showing the Wireshark capture for the PC2 to PC3 ping request.



17. Make a screen capture showing the timed out ping request.



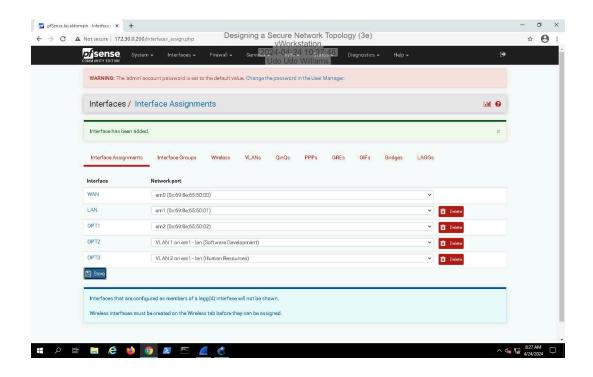
20. Make a screen capture showing the Wireshark capture for the PC3 to vWorkstation ping request.



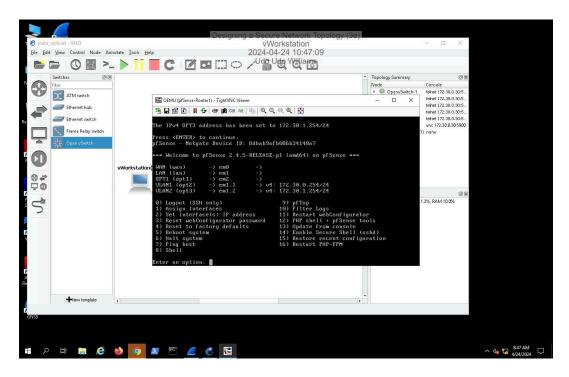
Section 2: Applied Learning

Part 1: Design a More Complex Network Topology

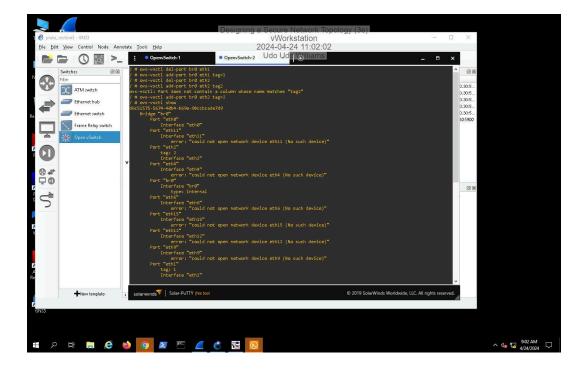
14. Make a screen capture showing the Interface Assignments page.



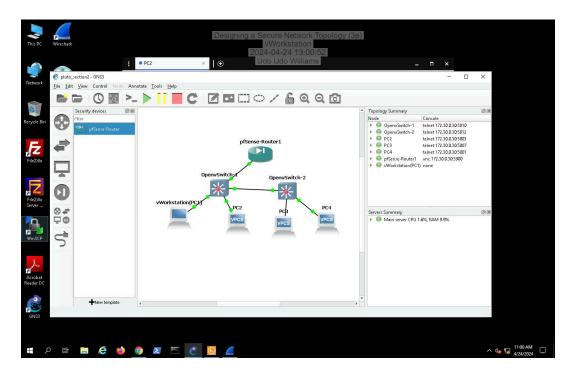
28. Make a screen capture showing the updated pfSense router settings with the VLAN IP address assignments.



36. Make a screen capture showing the eth1 and eth2 interfaces with their assigned VLAN tags on Switch2.

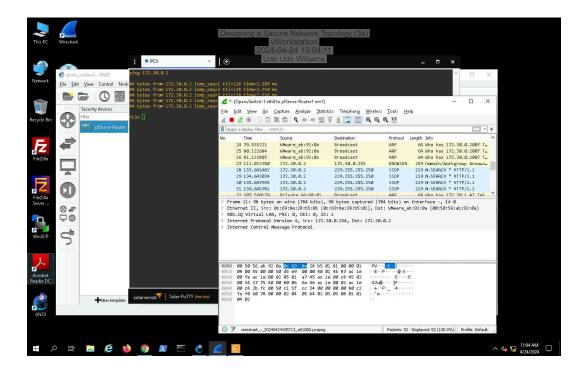


39. Make a screen capture showing the completed topology.

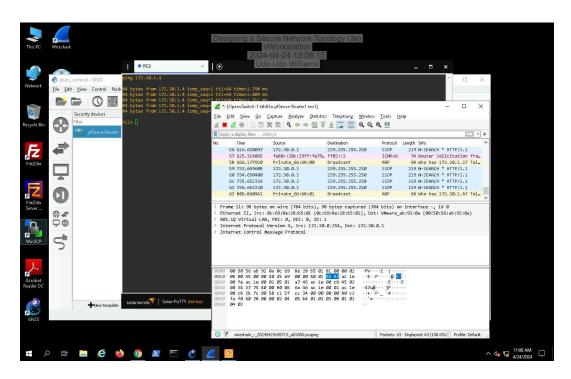


Part 2: Capture Network Traffic to Validate Connectivity

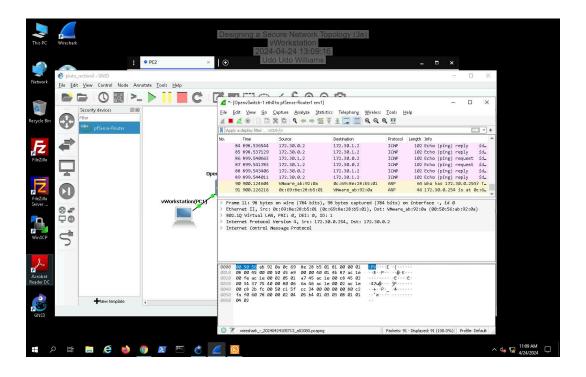
3. Make a screen capture showing the Wireshark capture for the vWorkstation to PC3 ping request.



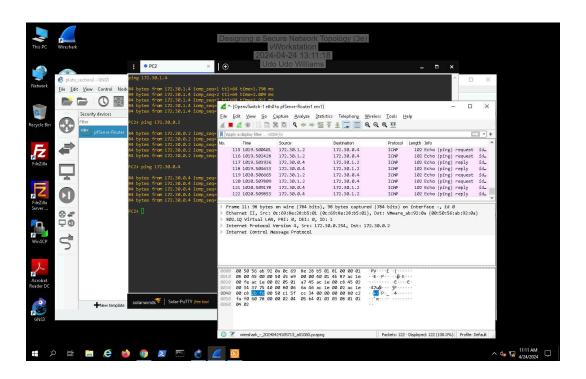
5. Make a screen capture showing the Wireshark capture for the PC2 to PC4 ping request.



7. Make a screen capture showing the Wireshark capture for the vWorkstation to PC2 ping request.



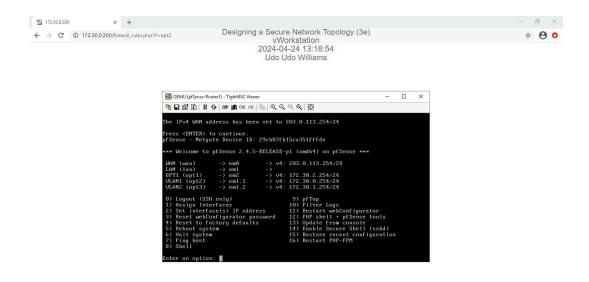
9. Make a screen capture showing the Wireshark capture for the PC2 to PC3 ping request.



Section 3: Challenge and Analysis

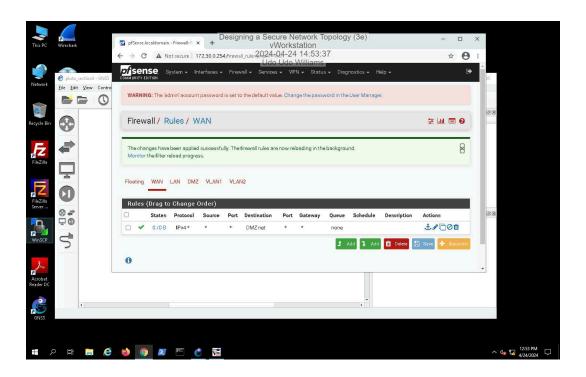
Part 1: Enhance the Network Topology with a DMZ

Make a screen capture showing the interface configurations in the pfSense console.





Make a screen capture showing the firewall rule on the WAN interface in the pfSense webConfigurator.



Part 2: Validate DMZ Connectivity

Make a screen capture showing the results of both pings.

