

Designing a Secure Network Topology (3e)

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

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Time on Task:

11 hours, 18 minutes

Progress:

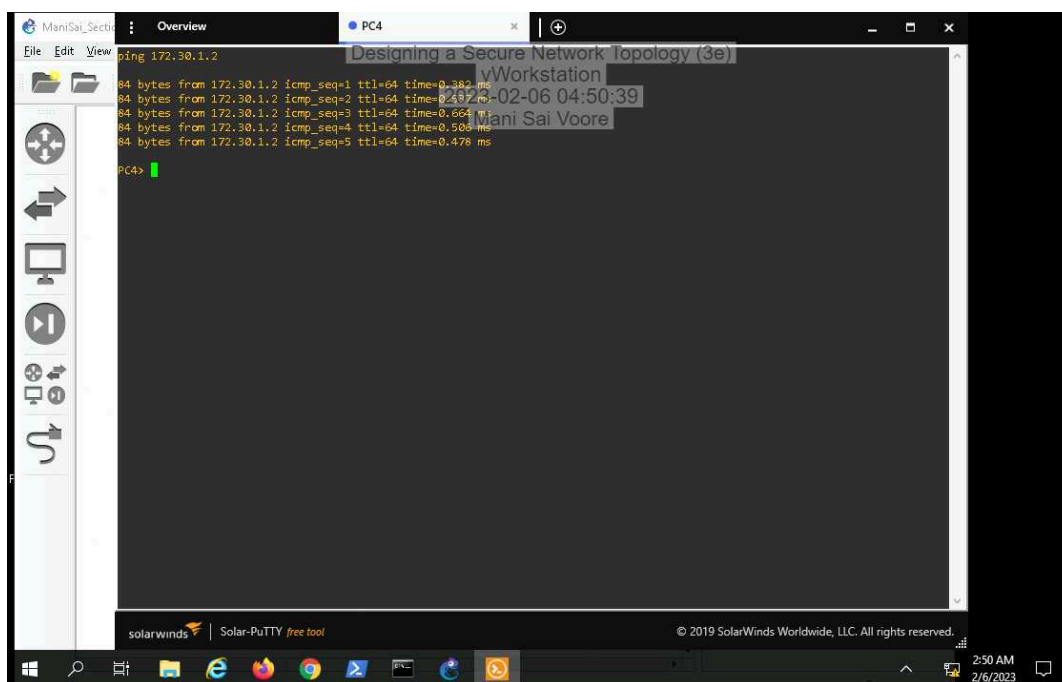
100%

Report Generated: Sunday, February 12, 2023 at 10:28 PM

Section 1: Hands-On Demonstration

Part 1: Design a Simple Network Topology

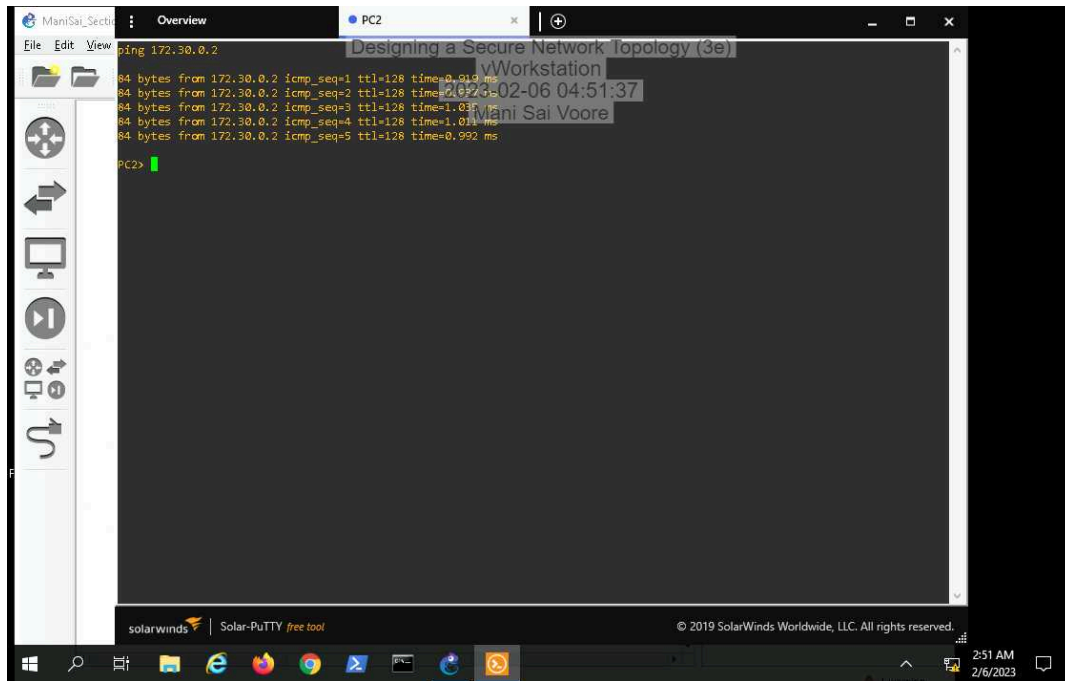
34. Make a screen capture showing the results of the ping attempt from PC4 to PC3.



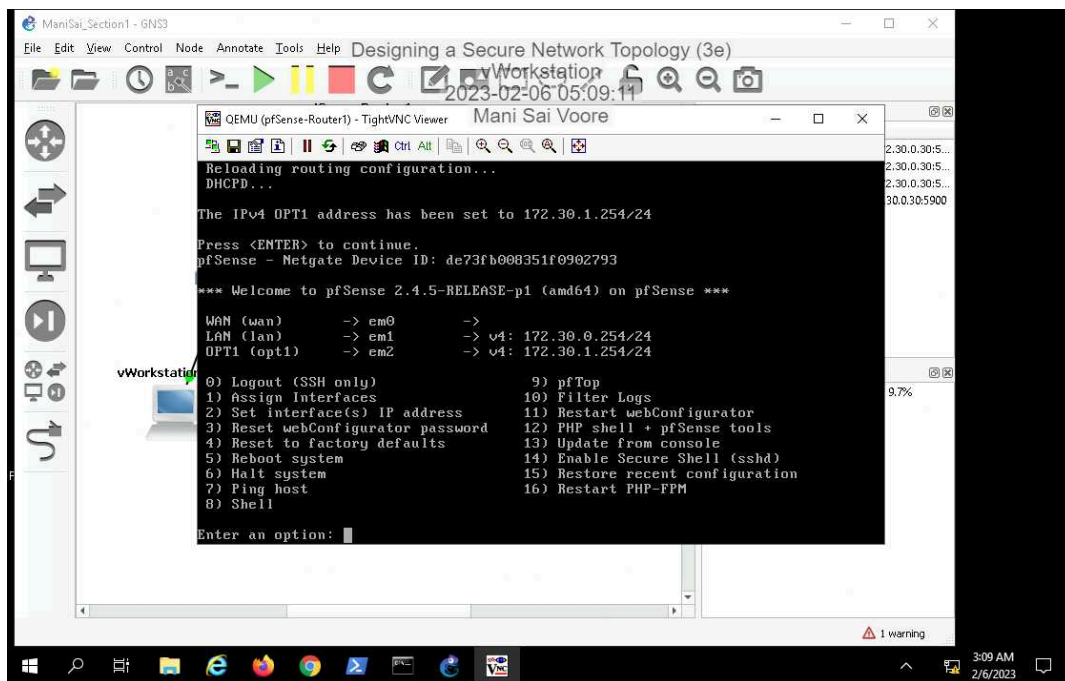
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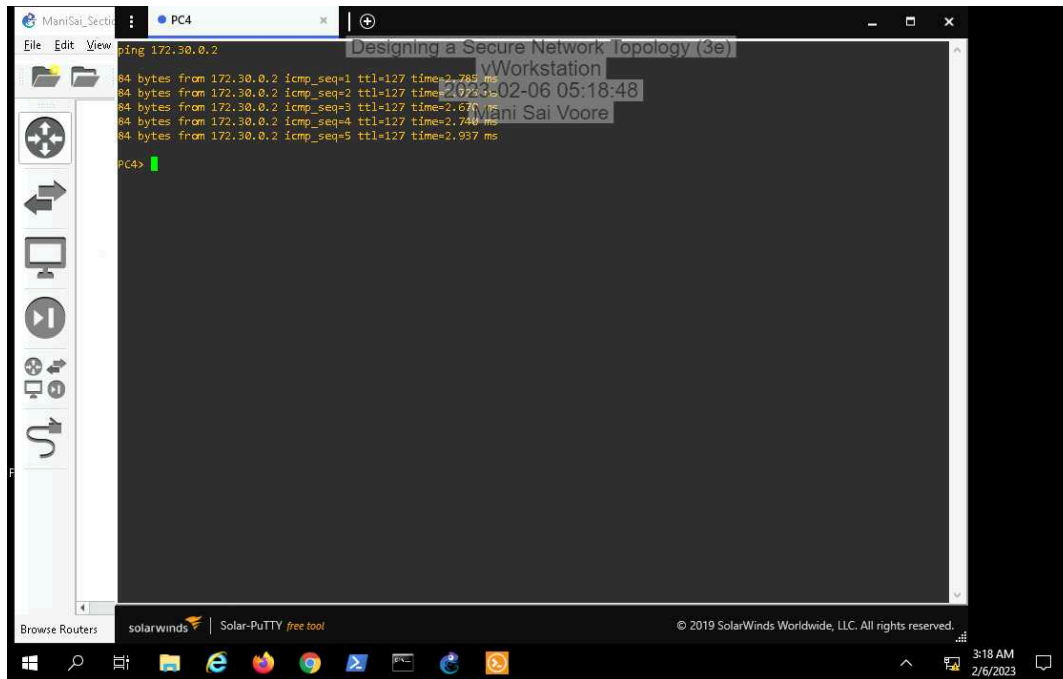
37. Make a screen capture showing the results of the ping attempt from PC2 to the vWorkstation (172.30.0.2).



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

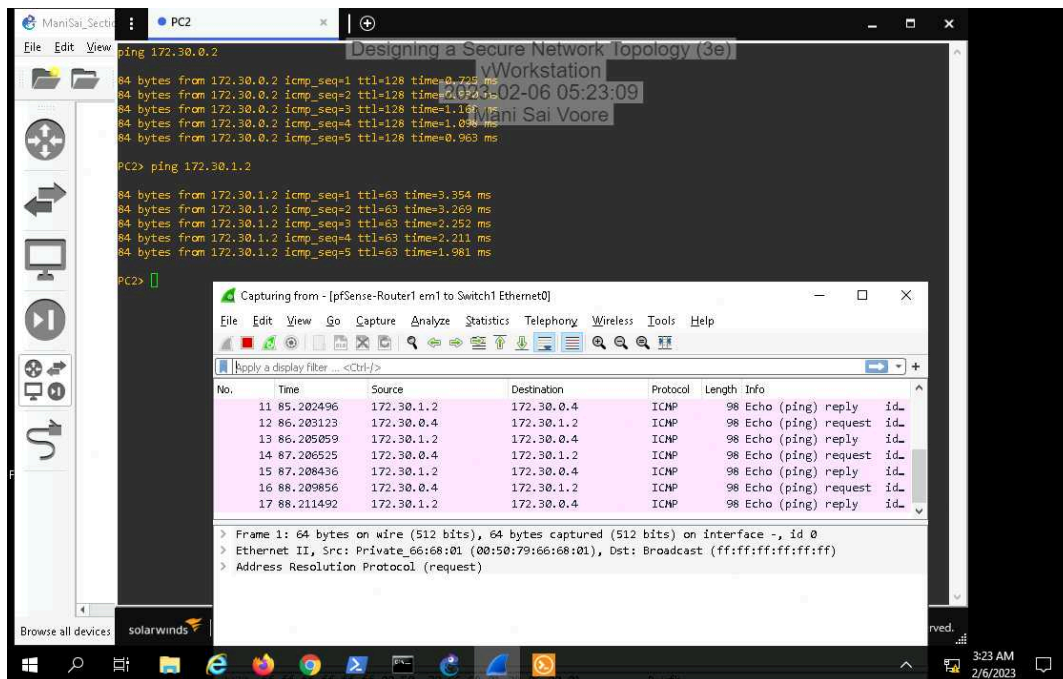


72. Make a screen capture showing the successful ping from PC4 to the vWorkstation.



Part 2: Capture Network Traffic to Validate Connectivity

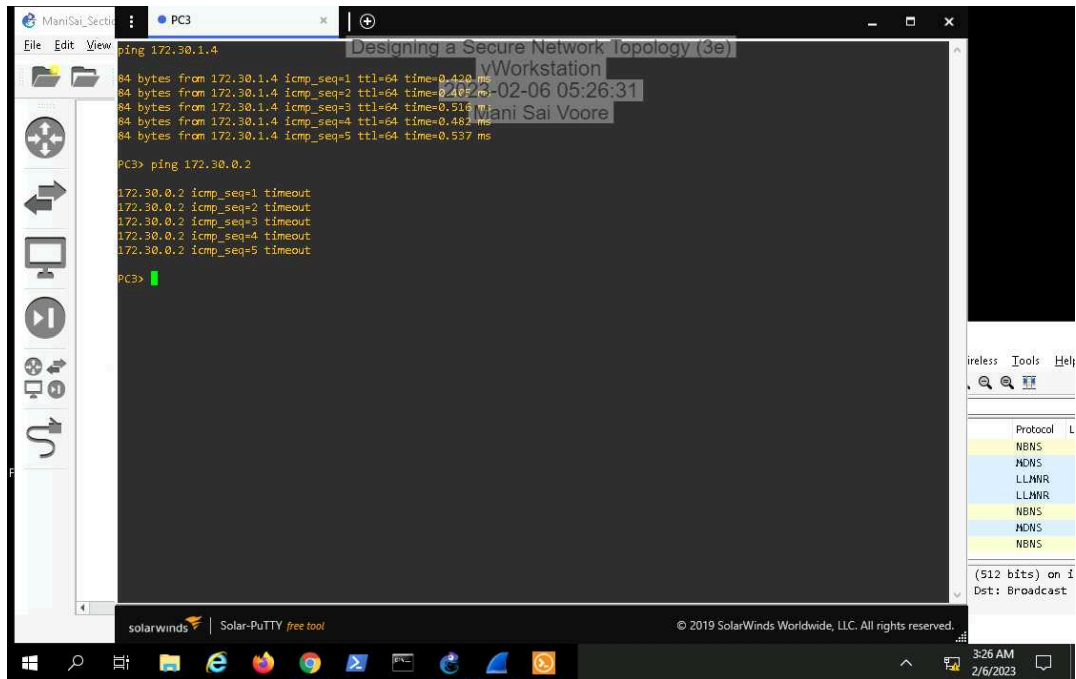
7. Make a screen capture showing the Wireshark capture for the PC2 to PC3 ping request.



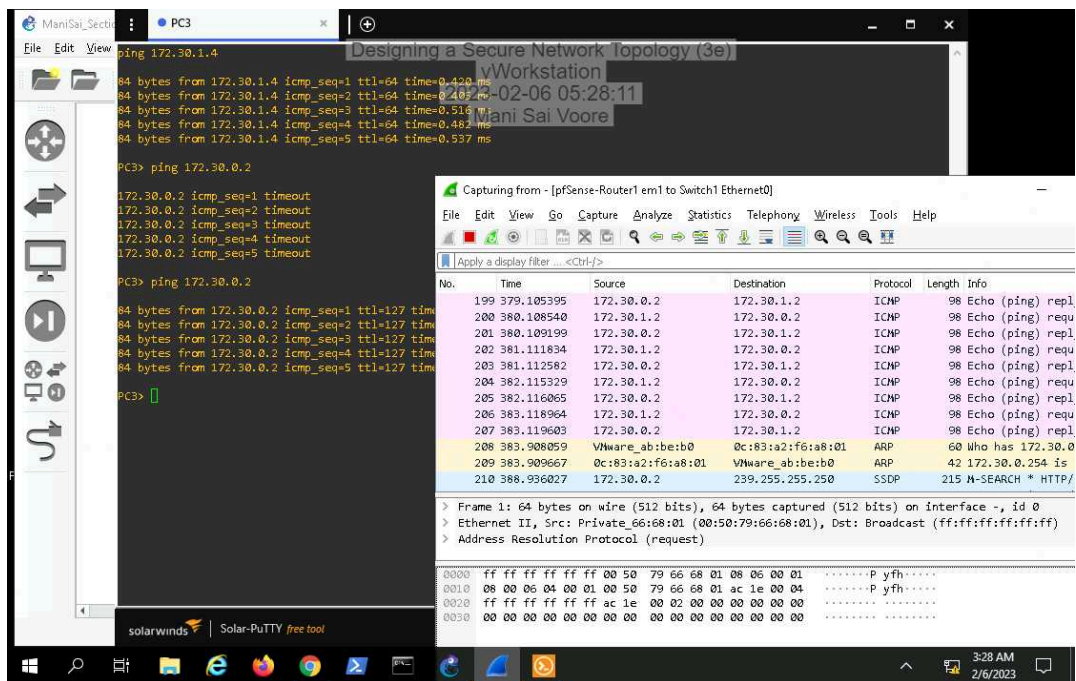
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17. **Make a screen capture** showing the **timed out ping request**.



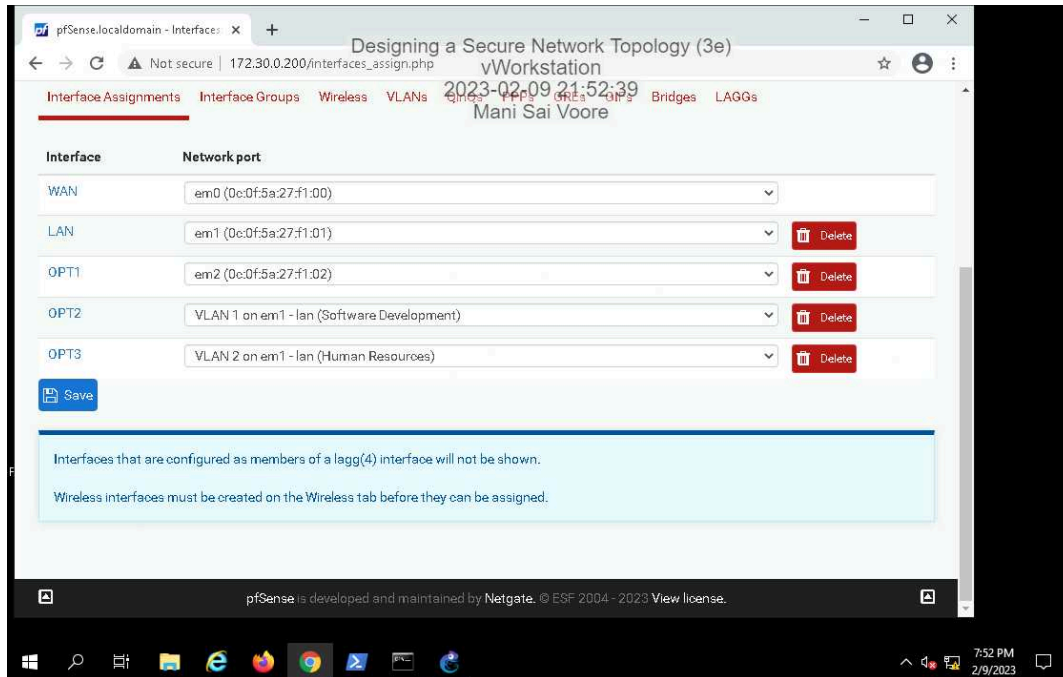
20. **Make a screen capture** showing the **Wireshark capture** for the **PC3 to vWorkstation ping request**.



Section 2: Applied Learning

Part 1: Design a More Complex Network Topology

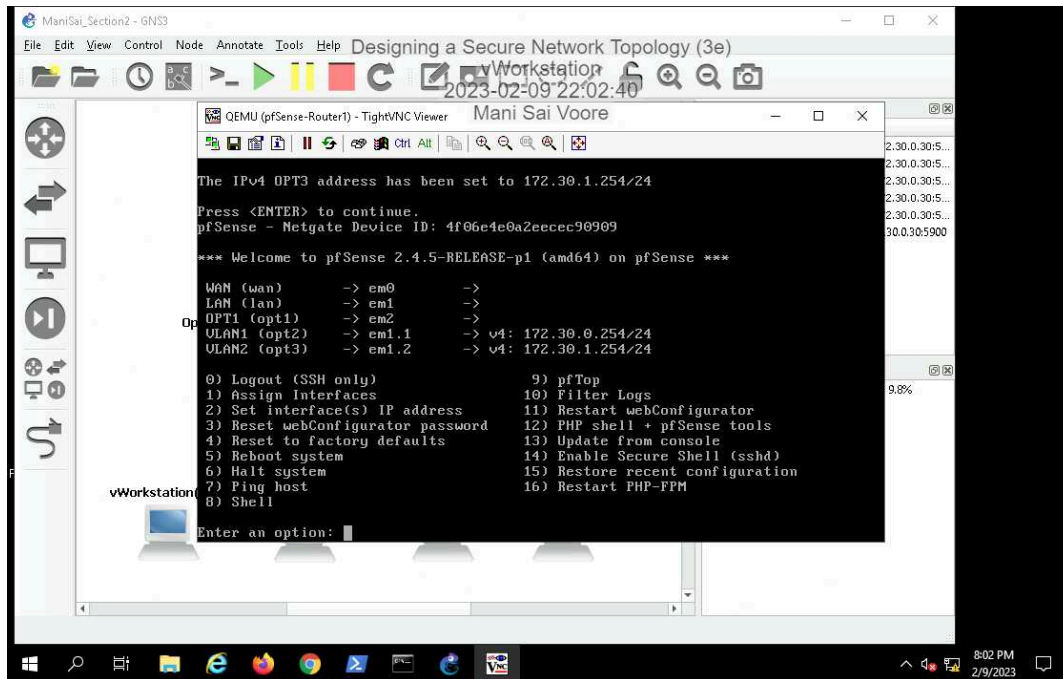
14. Make a screen capture showing the **Interface Assignments** page.



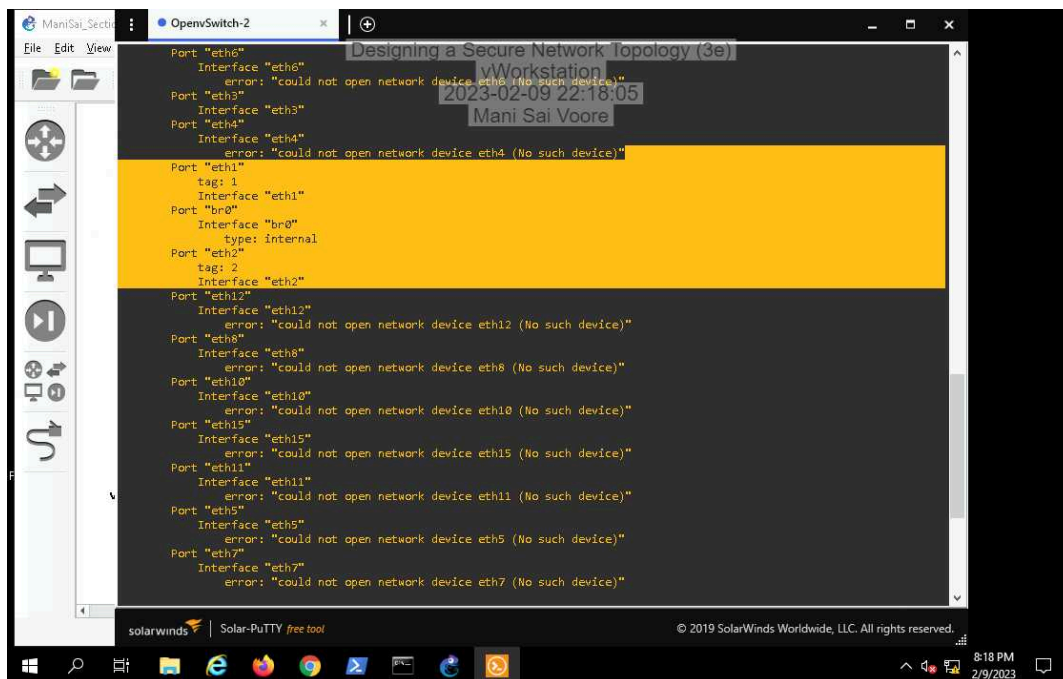
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28. Make a screen capture showing the updated pfSense router settings with the VLAN IP address assignments.



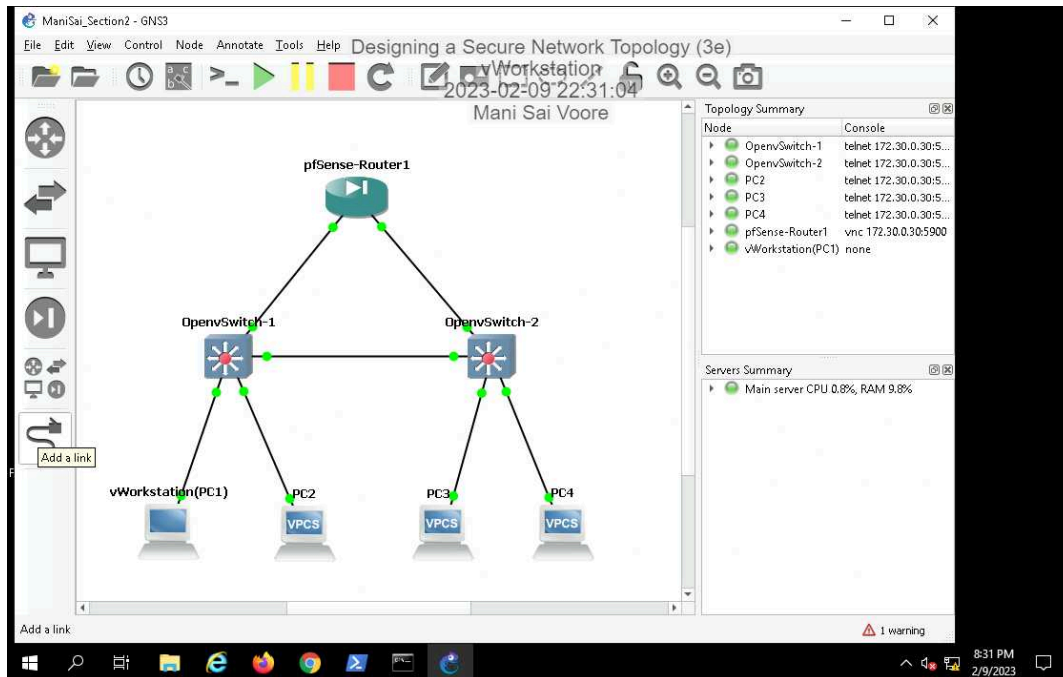
36. Make a screen capture showing the eth1 and eth2 interfaces with their assigned VLAN tags on Switch2.



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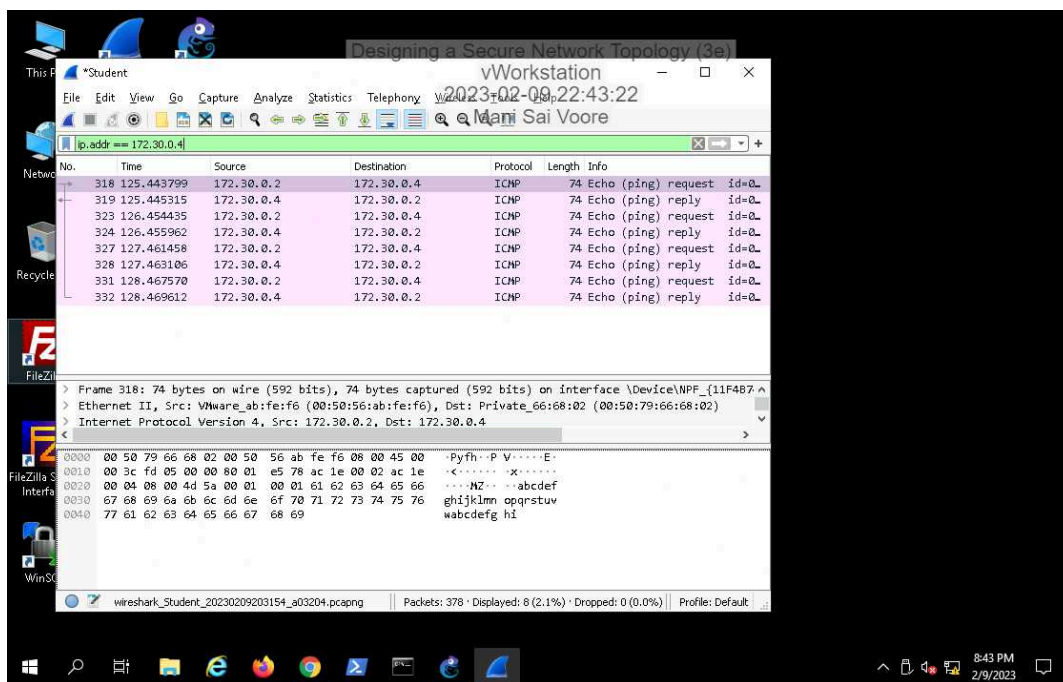
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39. Make a screen capture showing the completed topology.



Part 2: Capture Network Traffic to Validate Connectivity

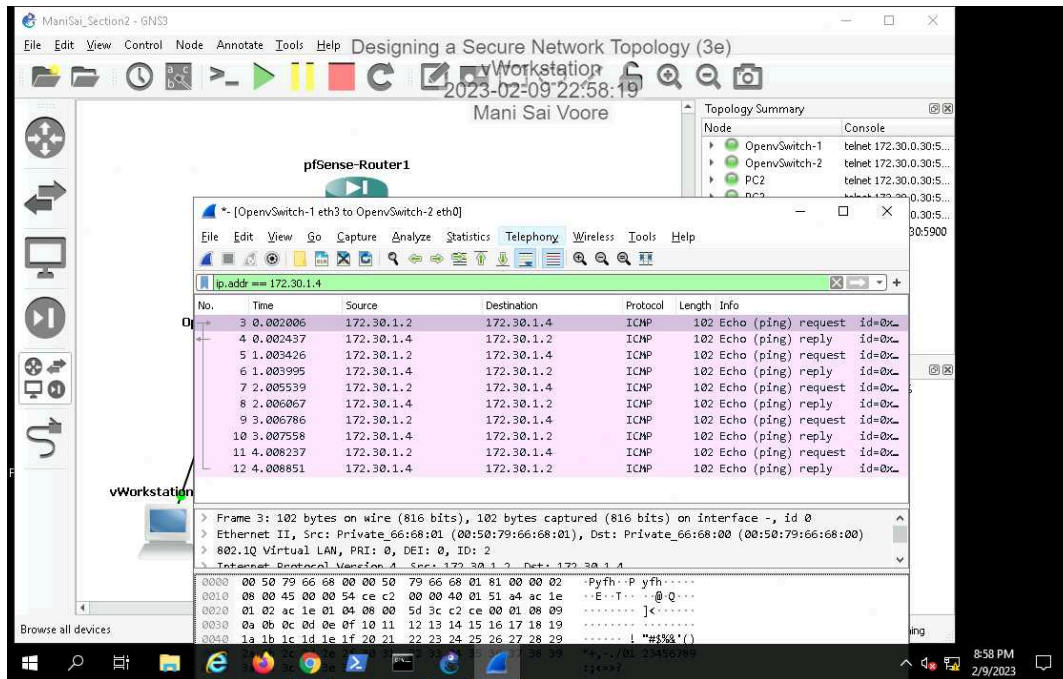
3. Make a screen capture showing the Wireshark capture for the vWorkstation to PC3 ping request.



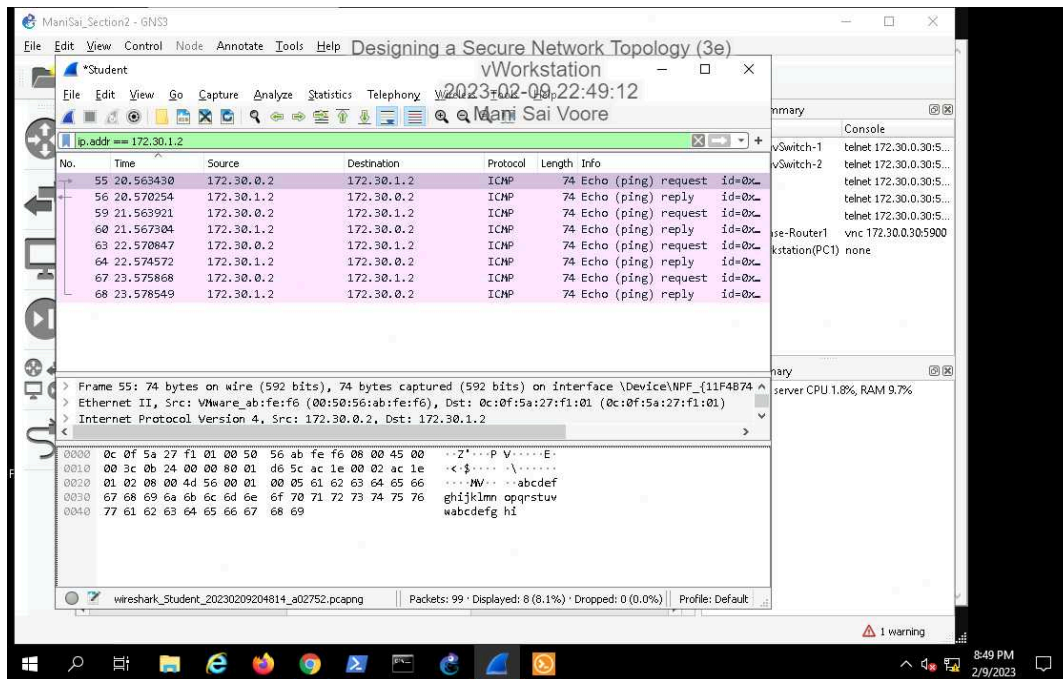
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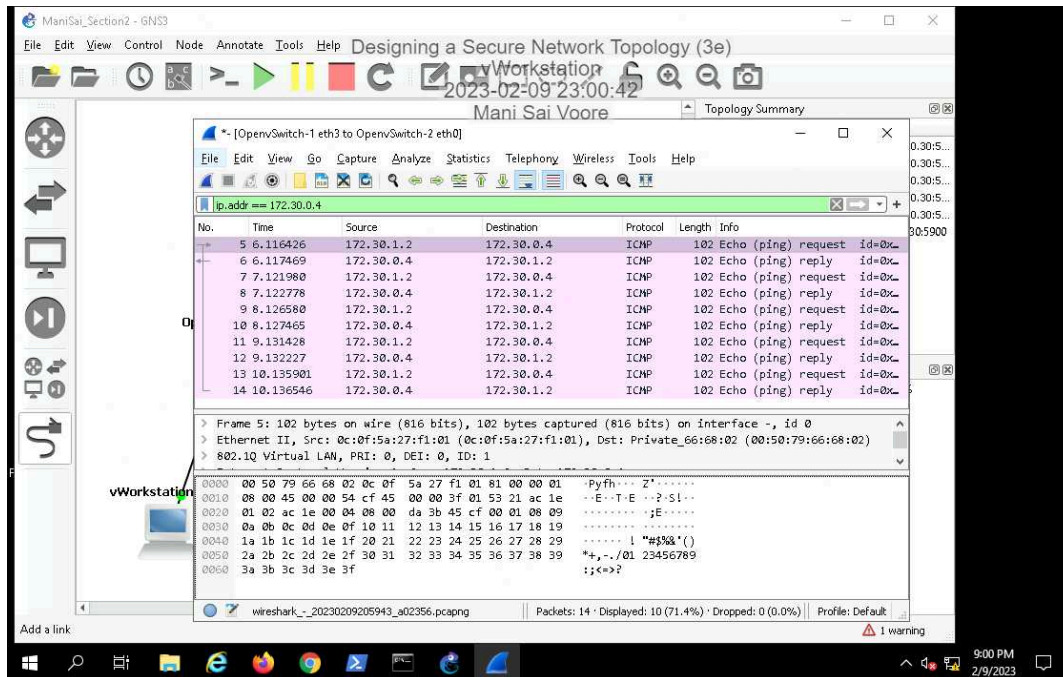
5. Make a screen capture showing the Wireshark capture for the PC2 to PC4 ping request.



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



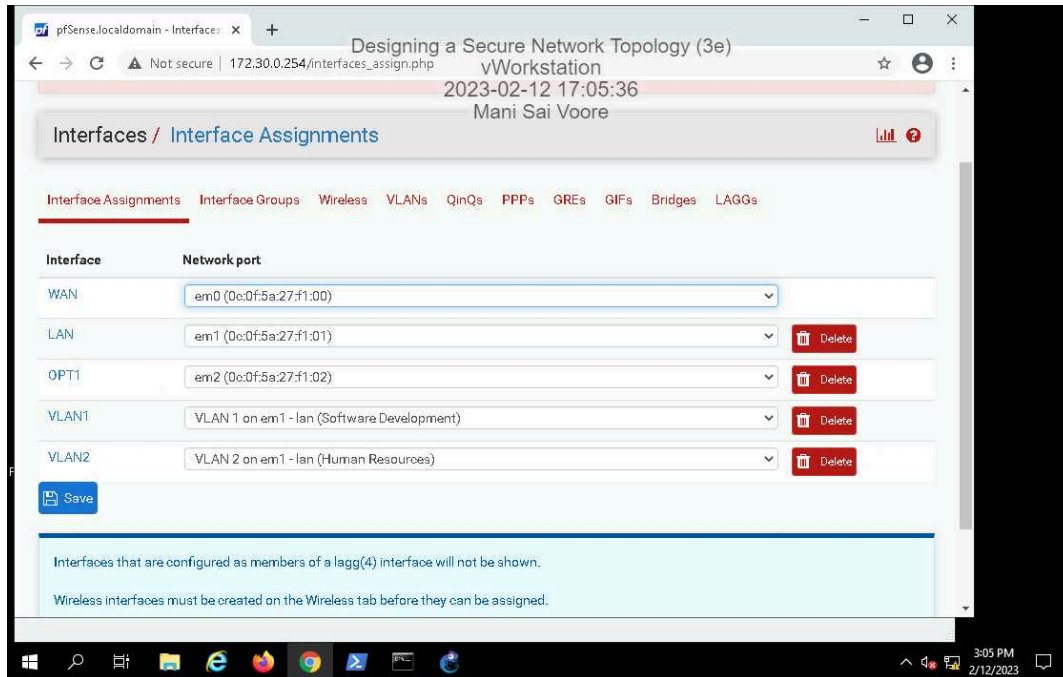
9. Make a screen capture showing the Wireshark capture for the PC2 to PC3 ping request.



Section 3: Challenge and Analysis

Part 1: Enhance the Network Topology with a DMZ

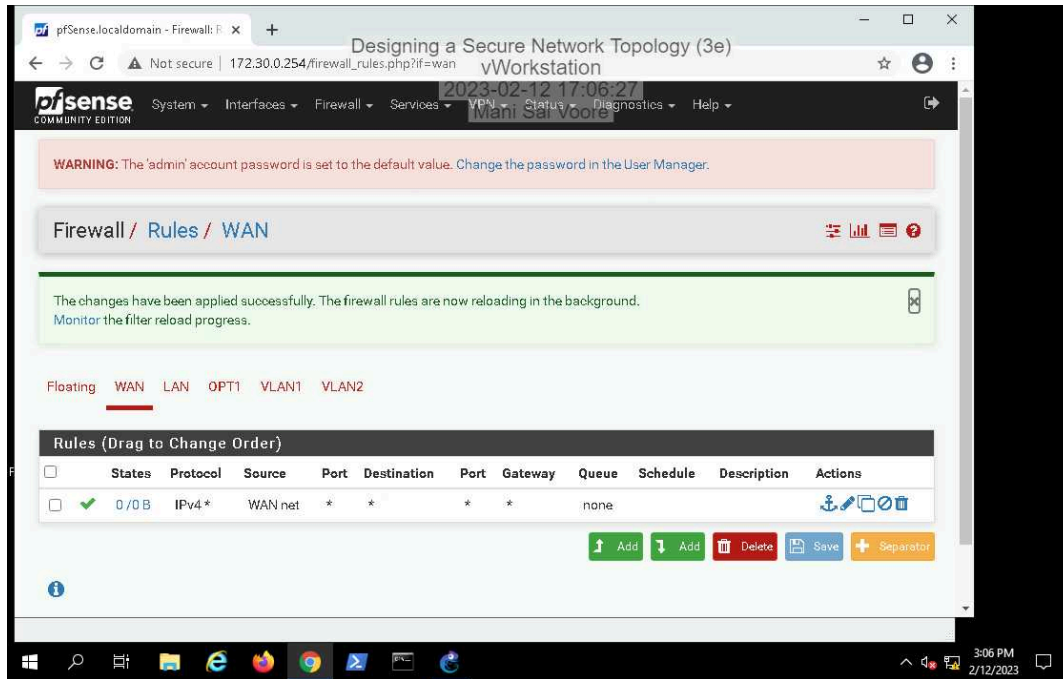
Make a screen capture showing the interface configurations in the pfSense console.



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

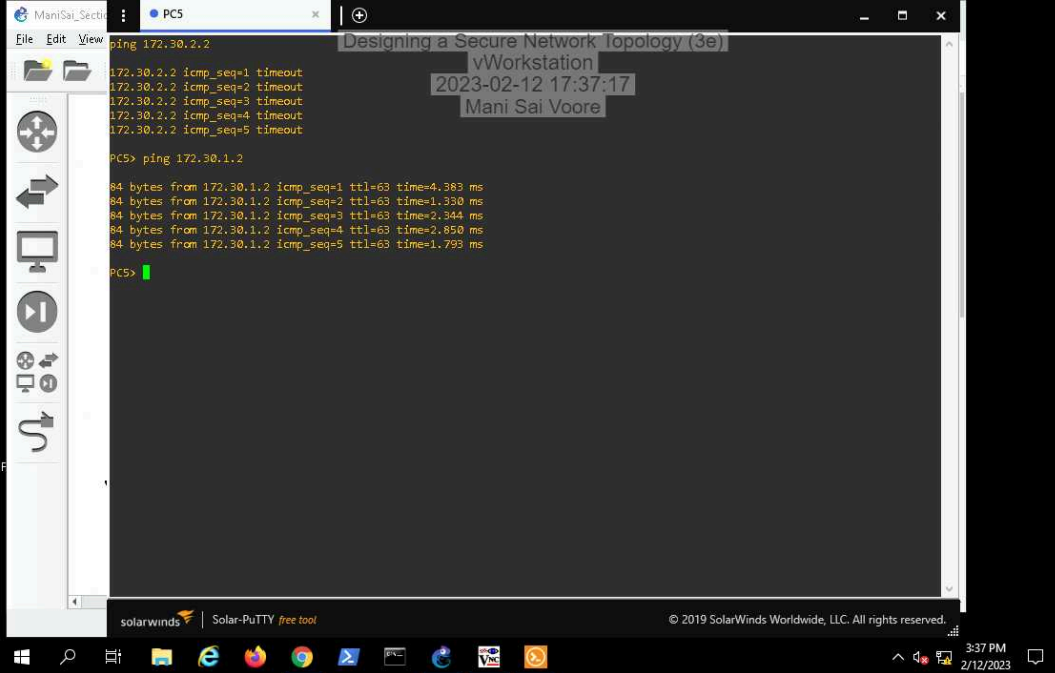


Part 2: Validate DMZ Connectivity

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Make a screen capture showing the results of both pings.



The screenshot shows a SolarWinds Solar-PuTTY terminal window titled "ManiSai_Sect...". The terminal displays the results of two ping commands. The first command is "ping 172.30.2.2", which results in five "timeout" messages for icmp_seq=1 through 5. The second command is "PC5> ping 172.30.1.2", which results in five successful ping responses from 172.30.1.2 with varying times (4.383 ms, 1.330 ms, 2.344 ms, 2.850 ms, 1.793 ms). The terminal window has a menu bar (File, Edit, View) and a toolbar on the left. The bottom status bar shows "solarwinds | Solar-PuTTY free tool" and "© 2019 SolarWinds Worldwide, LLC. All rights reserved." The Windows taskbar at the bottom shows the time as 3:37 PM on 2/12/2023.

```
ManiSai_Sect...
File Edit View
ping 172.30.2.2
172.30.2.2 icmp_seq=1 timeout
172.30.2.2 icmp_seq=2 timeout
172.30.2.2 icmp_seq=3 timeout
172.30.2.2 icmp_seq=4 timeout
172.30.2.2 icmp_seq=5 timeout
PC5> ping 172.30.1.2
84 bytes from 172.30.1.2 icmp_seq=1 ttl=63 time=4.383 ms
84 bytes from 172.30.1.2 icmp_seq=2 ttl=63 time=1.330 ms
84 bytes from 172.30.1.2 icmp_seq=3 ttl=63 time=2.344 ms
84 bytes from 172.30.1.2 icmp_seq=4 ttl=63 time=2.850 ms
84 bytes from 172.30.1.2 icmp_seq=5 ttl=63 time=1.793 ms
PC5>
solarwinds | Solar-PuTTY free tool
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3:37 PM
2/12/2023
```