

Student:

Patrick Kierzkowski

Email:

pxk405@francis.edu

Time on Task:

14 hours, 45 minutes

Progress:

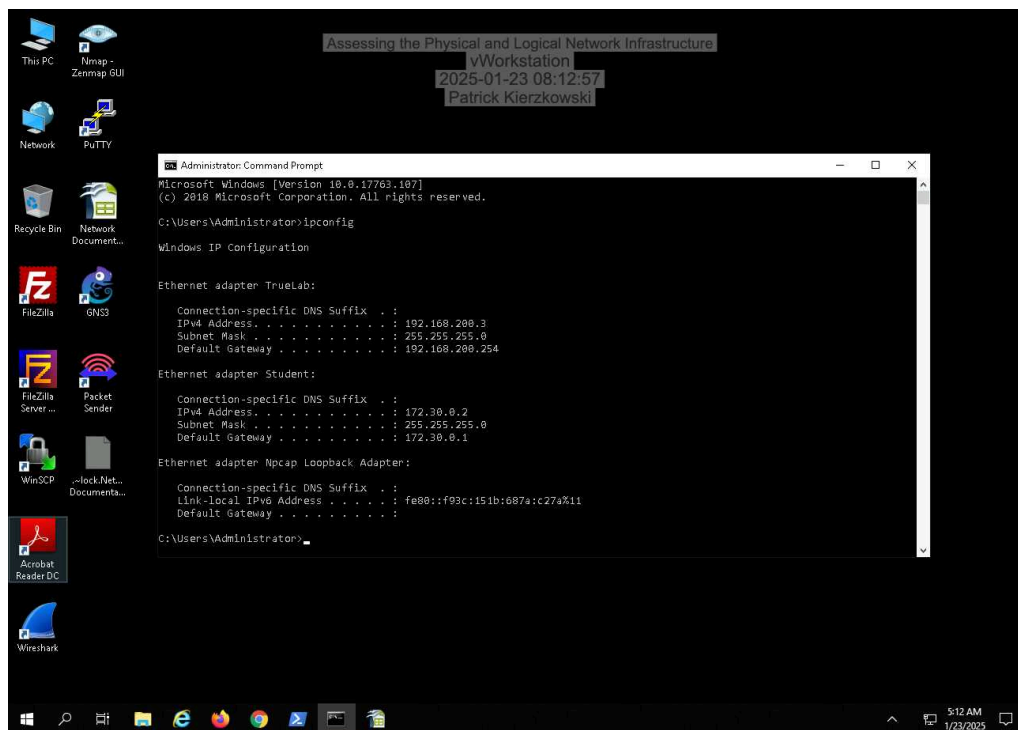
100%

Report Generated: Monday, July 7, 2025 at 9:44 PM

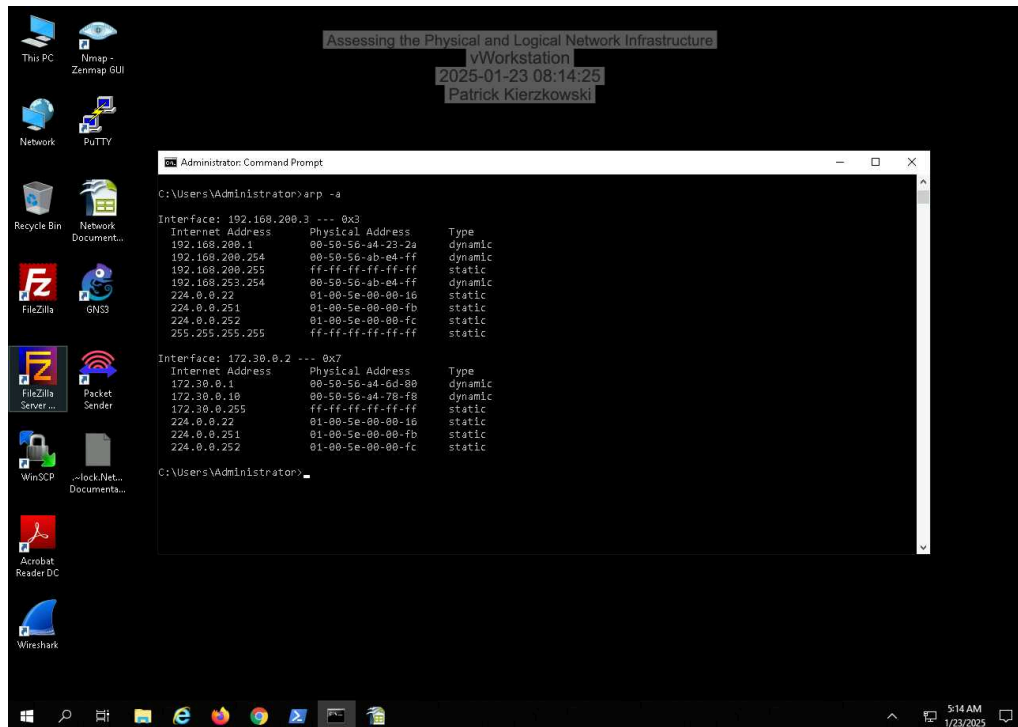
Section 1: Hands-On Demonstration

Part 1: Access the Default Gateway Router

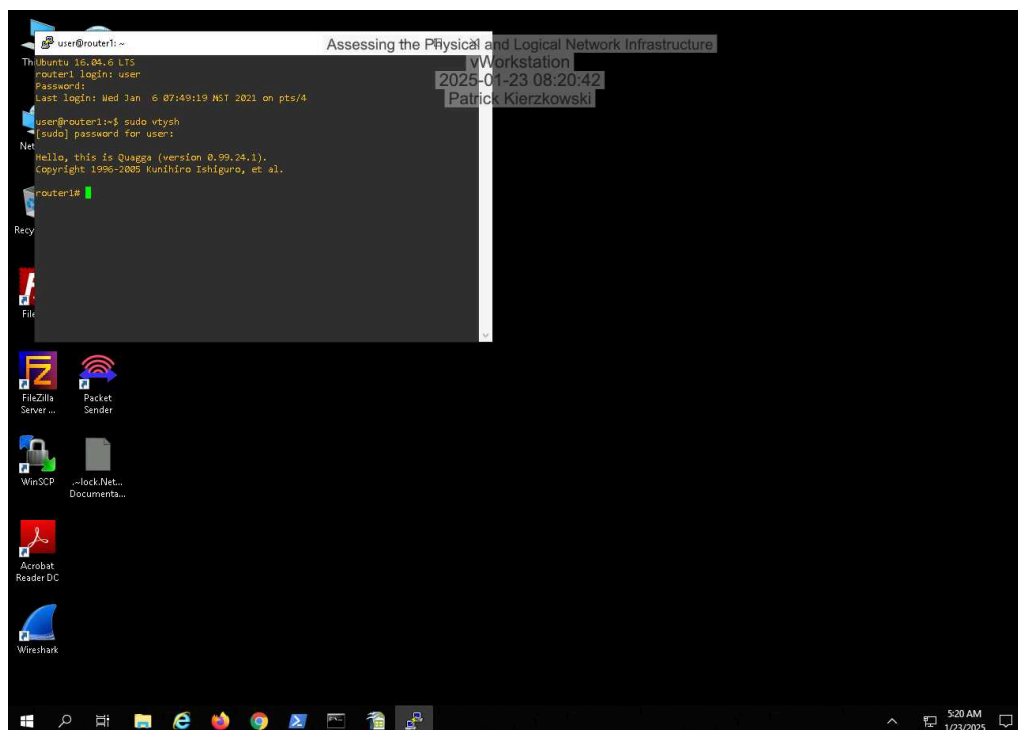
5. Make a screen capture showing the IP configuration for the vWorkstation.



8. Make a screen capture showing the ARP cache for the vWorkstation.



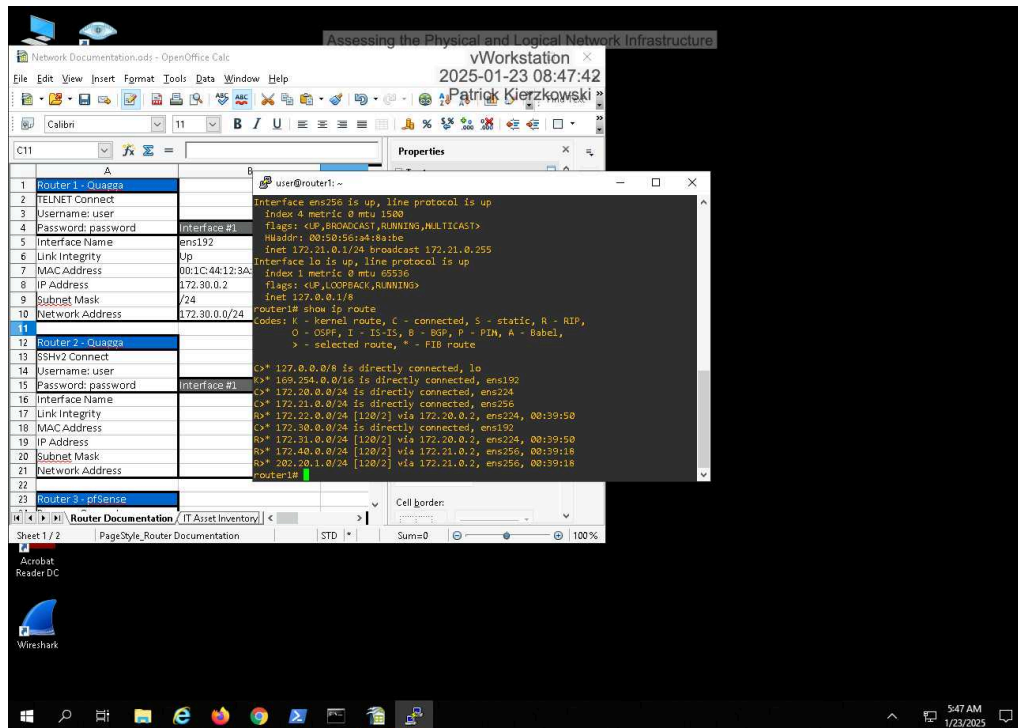
16. Make a screen capture showing the router1 console shell.



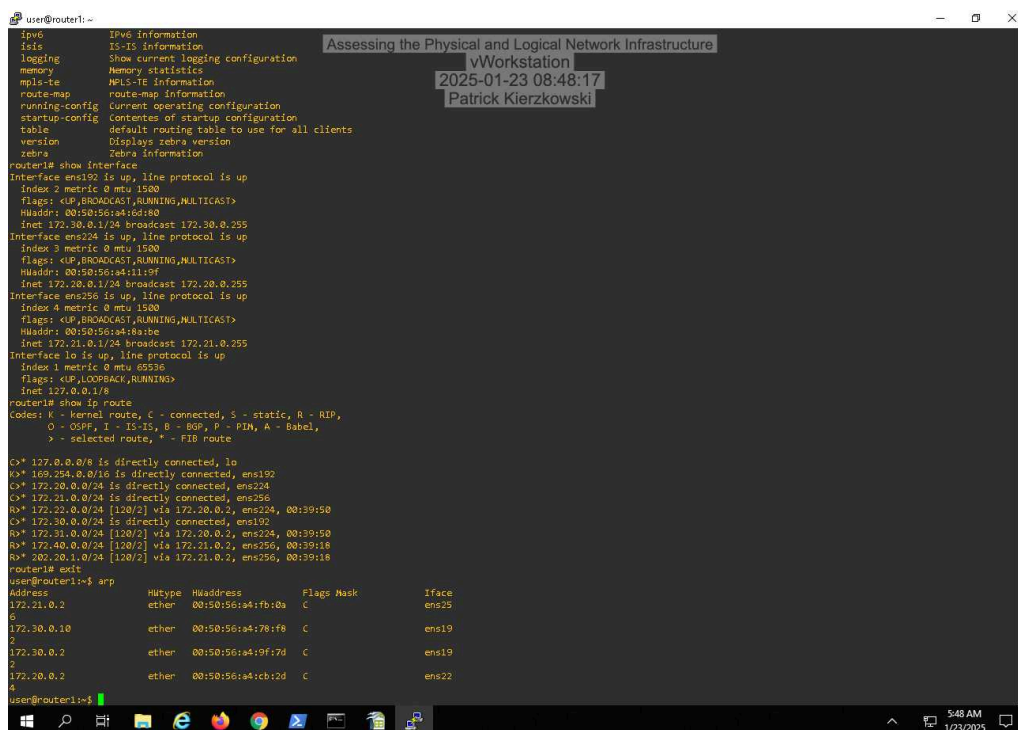
Part 2: Collect Physical, Data Link, and Network Layer Information for a Quagga

Router

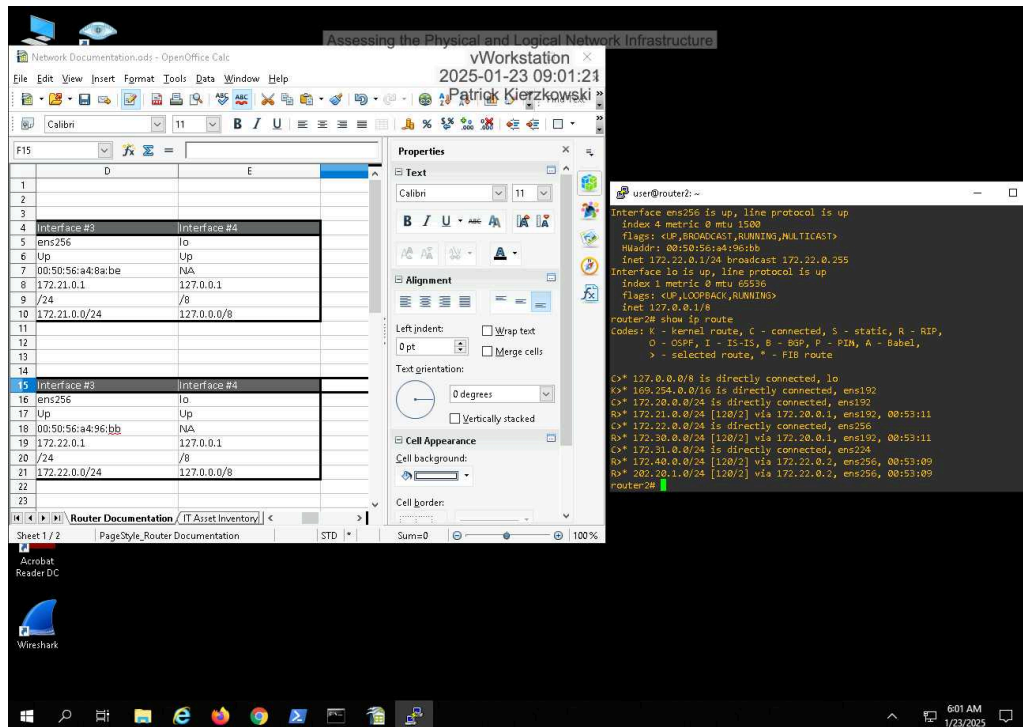
6. Make a screen capture showing the IP routes for router1.



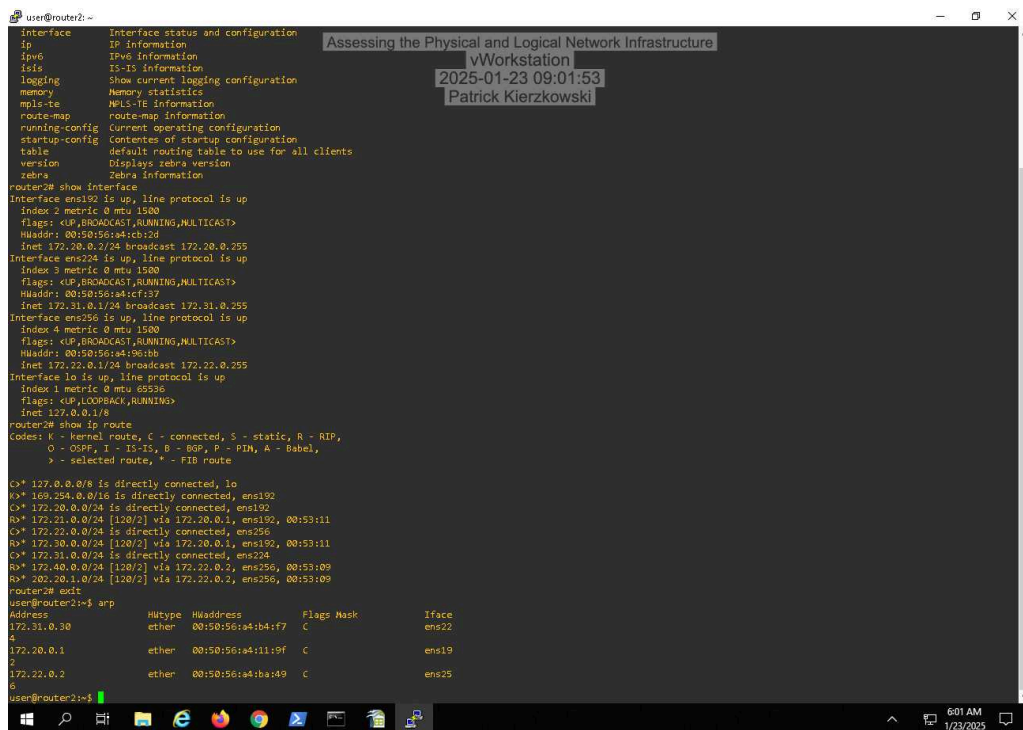
9. Make a screen capture showing the ARP cache for router1.



18. Make a screen capture showing the IP routes for router2.



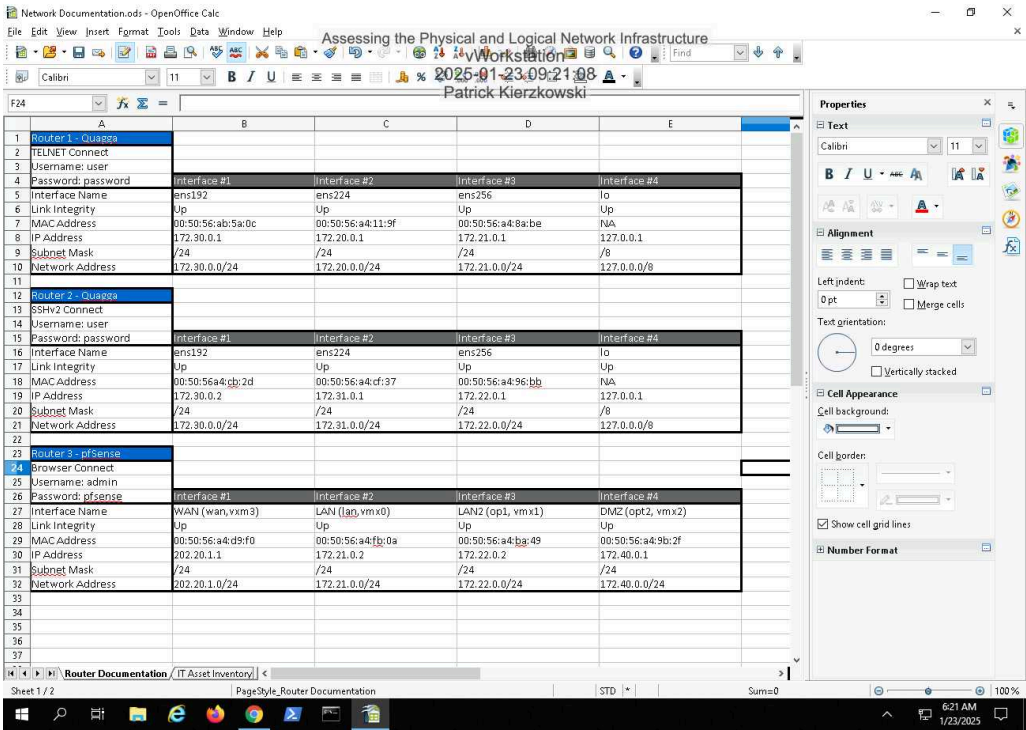
20. Make a screen capture showing the ARP cache for router2.



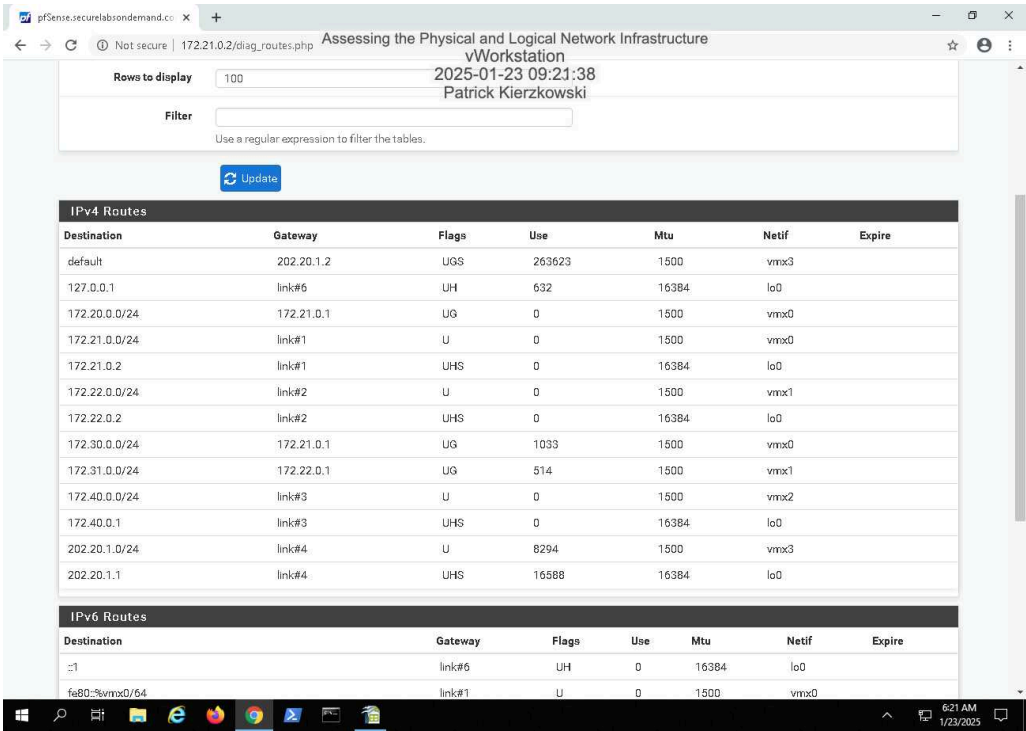
Part 3: Collect Physical, Data Link, and Network Layer Information for a pfSense

Device

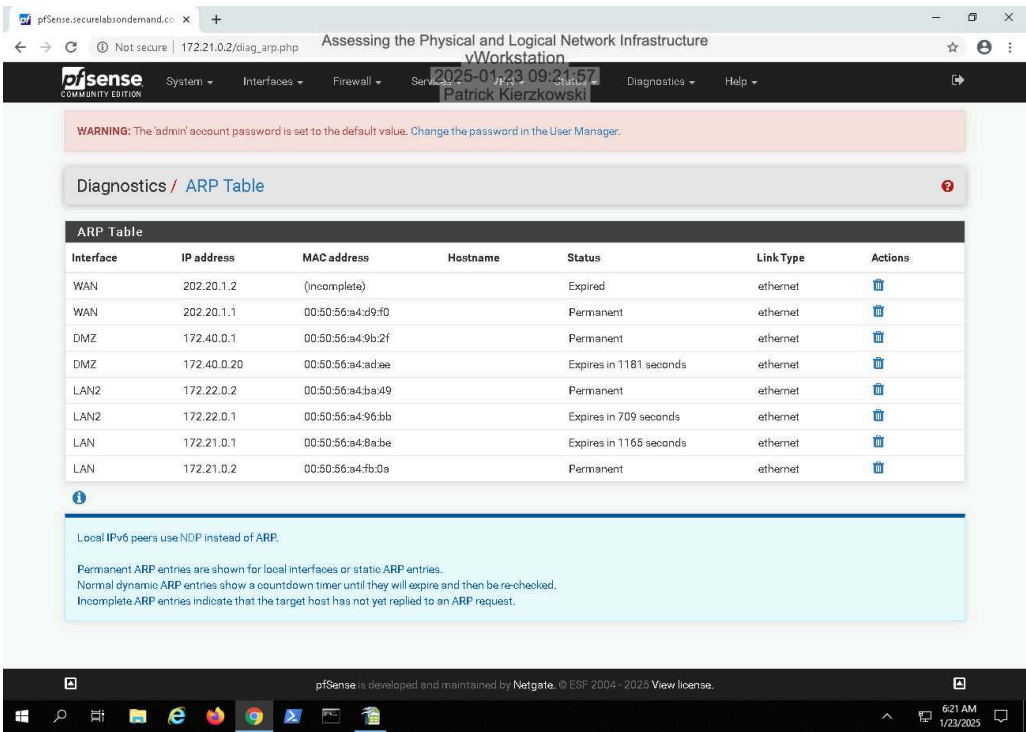
6. Make a screen capture showing the completed Network Documentation spreadsheet.



8. Make a screen capture showing the IP Routes for the pfSense device.



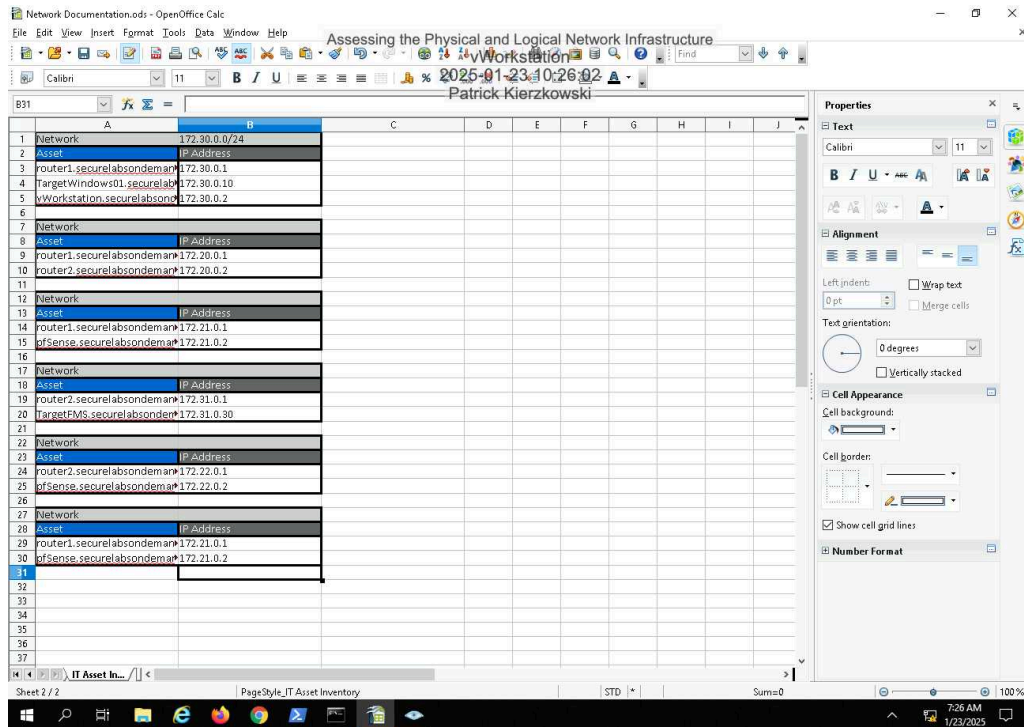
10. Make a screen capture showing the ARP table for pfSense.



Section 2: Applied Learning

Part 1: Build an IT Asset Inventory Using Zenmap

8. Make a screen capture showing the completed IT Asset Inventory tab.



Part 2: Compare IP Routing Tables

5. Record each directly connected IP host and subnet in the router1 IP routing table.

ens192 172.30.0.1/24 172.30.0.255 ens224 172.20.0.1/24. 172.20.0/255 ens256 172.21.0.1/24.
172.21.0.255lo 127.0.0.1/8 NA

8. Record each directly connected IP host and subnet in the router2 IP routing table.

ens192 172.30.0.1/24 172.30.0.255ens224 172.20.0.1/24 172.20.0.255ens256 172.21.0.1/24
172.21.0.255lo 127.0.0.1/8 NA

12. **Record** each directly connected IP host and subnet in the pfSense IPv4 routing table.

In pfSense, the directly connected hosts or subnets are those that list a link# in the Gateway column, rather than IP address.

LAN 172.21.0.0/24 172.21.0.2 LAN 2 172.22.0.0/24 172.22.0.2 DMZ 172.40.0.0/24 172.40.0.1
WAN 202.20.1.0/24 202.20.1.1
All match

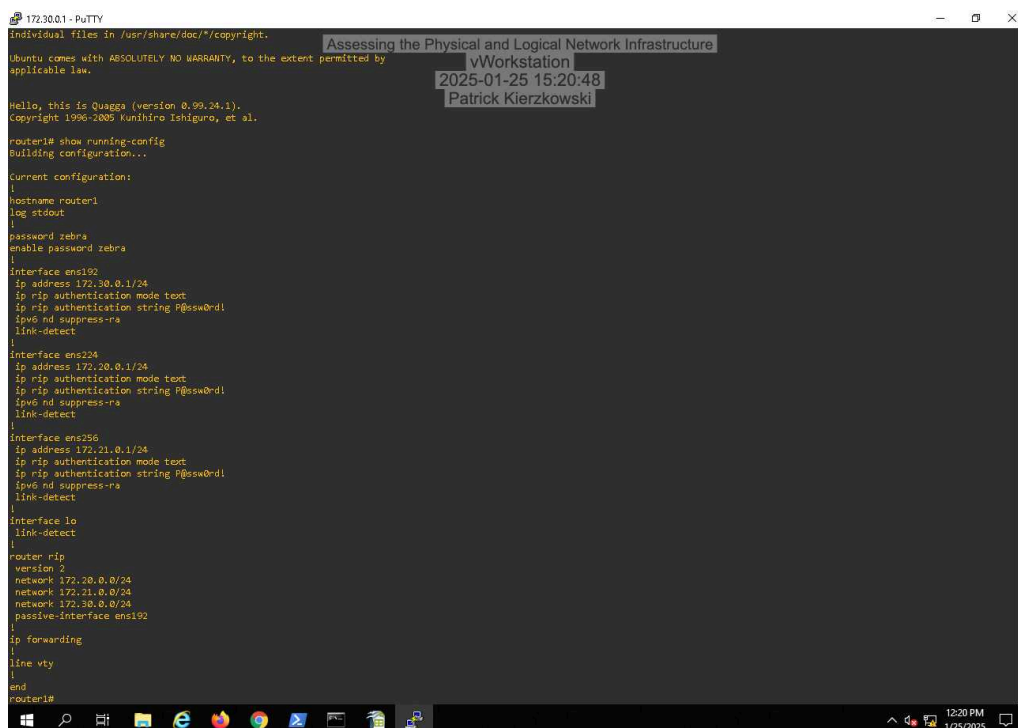
13. **Compare** your findings with the IT Asset Inventory and Router Documentation in the Network Documentation spreadsheet.

Do your findings match your documentation?

Yes they do

Part 3: Use the Router Configuration File to Verify Interface Documentation

5. **Make a screen capture** showing the configuration file for router1.



```
172.30.0.1 - PuTTY
individual files in /usr/share/doc/*/copyright.
Assessing the Physical and Logical Network Infrastructure
vWorkstation
2025-01-25 15:20:48
Patrick Kierzkowski

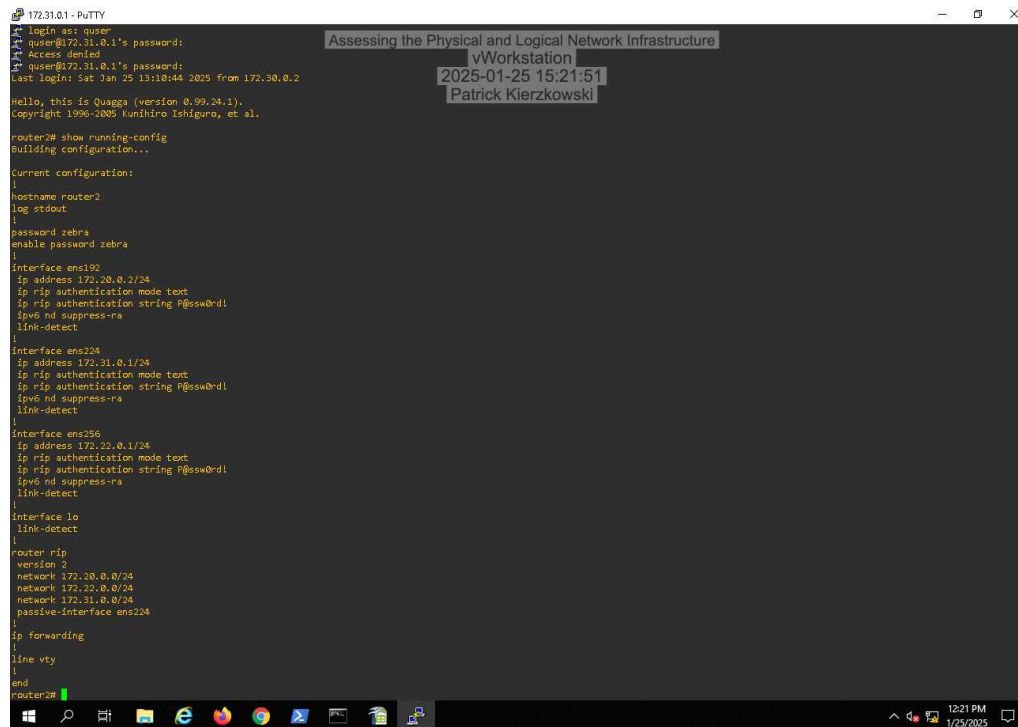
Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

Hello, this is Quagga (version 0.99.24.1).
Copyright 1996-2005 Kunihiko Ishiguro, et al.

router1# show running-config
Building configuration...

Current configuration:
!
hostname router1
log stdout
!
password zebra
enable password zebra
!
interface ens192
ip address 172.30.0.1/24
ip rip authentication mode test
ip rip authentication string R@ssw@rd!
ipv6 nd suppress-ra
link-detect
!
interface ens224
ip address 172.20.0.1/24
ip rip authentication mode test
ip rip authentication string R@ssw@rd!
ipv6 nd suppress-ra
link-detect
!
interface ens256
ip address 172.21.0.1/24
ip rip authentication mode test
ip rip authentication string R@ssw@rd!
ipv6 nd suppress-ra
link-detect
!
interface lo
link-detect
!
router rip
version 2
network 172.20.0.0/24
network 172.21.0.0/24
network 172.30.0.0/24
passive-interface ens192
!
ip forwarding
!
line vty
!
end
router1#
```


8. Make a screen capture showing the **configuration file for router2**.



```
172.31.0.1 - PuTTY
login as: quser
quser@172.31.0.1's password:
Access denied
quser@172.31.0.1's password:
Last login: Sat Jan 25 13:18:44 2025 from 172.30.0.2

Hello, this is Quagga (version 0.99.24.1).
Copyright 1996-2005 Kunihiko Ishiguro, et al.

router2# show running-config
Building configuration...

Current configuration:
!
hostname router2
log stdout
!
password zebra
enable password zebra
!
interface ens192
ip address 172.20.0.2/24
ip rip authentication mode test
ip rip authentication string R@ssw@rd!
ipw6 nd suppress-ra
link-detect
!
interface ens224
ip address 172.21.0.1/24
ip rip authentication mode test
ip rip authentication string R@ssw@rd!
ipw6 nd suppress-ra
link-detect
!
interface ens256
ip address 172.22.0.1/24
ip rip authentication mode test
ip rip authentication string R@ssw@rd!
ipw6 nd suppress-ra
link-detect
!
interface lo
link-detect
!
router rip
version 2
network 172.20.0.0/24
network 172.22.0.0/24
network 172.31.0.0/24
passive-interface ens224
!
ip forwarding
!
line vty
!
end
router2#
```

14. Document the following information from the **config.xml** file:

- a. Hostname
- b. Interfaces Names and IP Addresses

WAN 202.20.1.1 vmx3 LAN 172.21.0.2 vmx0 DMZ 172.40.0.1
vmx2 LAN2 172.22.0.2 vmx1

15. **Compare** your findings with the IT Asset Inventory and Router Documentation in the Network Documentation spreadsheet.

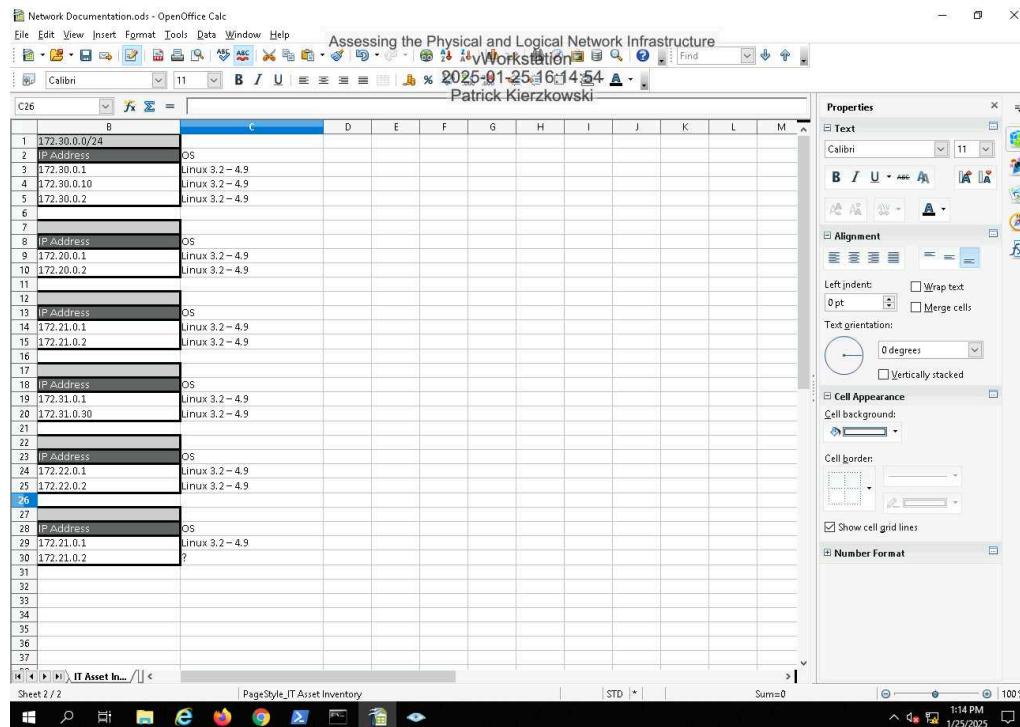
Do your findings match your documentation?

Yes

Section 3: Challenge and Analysis

Part 1: Create a Corporate Network Documentation Package

Make a screen capture showing the completed Asset Inventory tab with the new OS column.



Part 2: Convert Nmap Output into an HTML Report

Document the command used to generate the XML output file.

```
nmap -O -oX C:\Users\Administrator\Desktop\networkReport.xml
```

Make a screen capture showing the **HTML report** generated from your scan in Internet Explorer.

