

Course: IS6572 - Fall 2025

Date: 08-25-2025

Lab: Palo Alto Firewall Interface Configuration Labs

This repository contains screenshots and documentation from lab exercises performed using Netlab to configure Palo Alto firewall interfaces. These labs were completed as part of my coursework and cover foundational concepts in firewall interface setup and connectivity testing.

Topics Covered

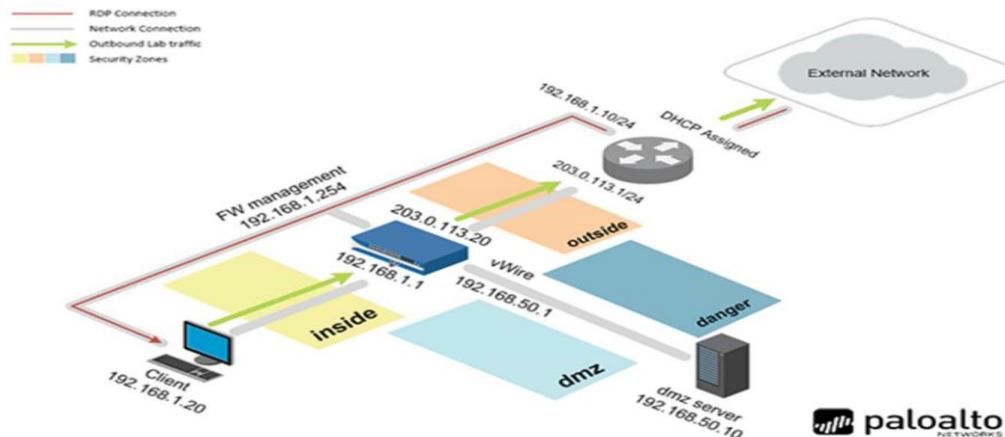
1. Load Lab Configuration
2. Create New Security Zones
3. Create Interface Management Profiles
4. Configure Ethernet Interfaces
5. Create a Virtual Wire
6. Create a Virtual Router
7. Test Connectivity
8. Modify Outside Interface Configuration

Each section includes screenshots to illustrate the steps taken.

Tools Used

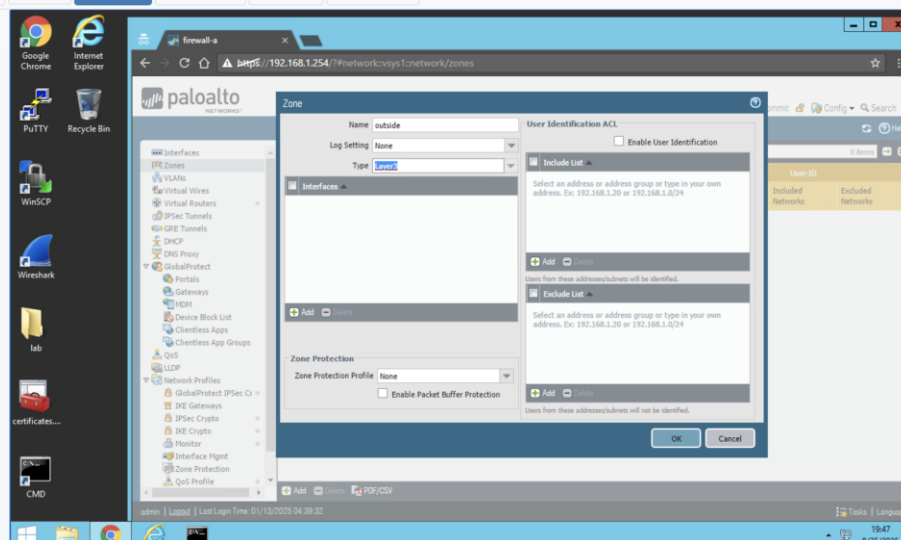
1. Netlab (virtual lab environment)
2. Palo Alto Networks Firewall GUI
3. PuTTY

Lab Topology



Section 1.1: Creating New Security Zones

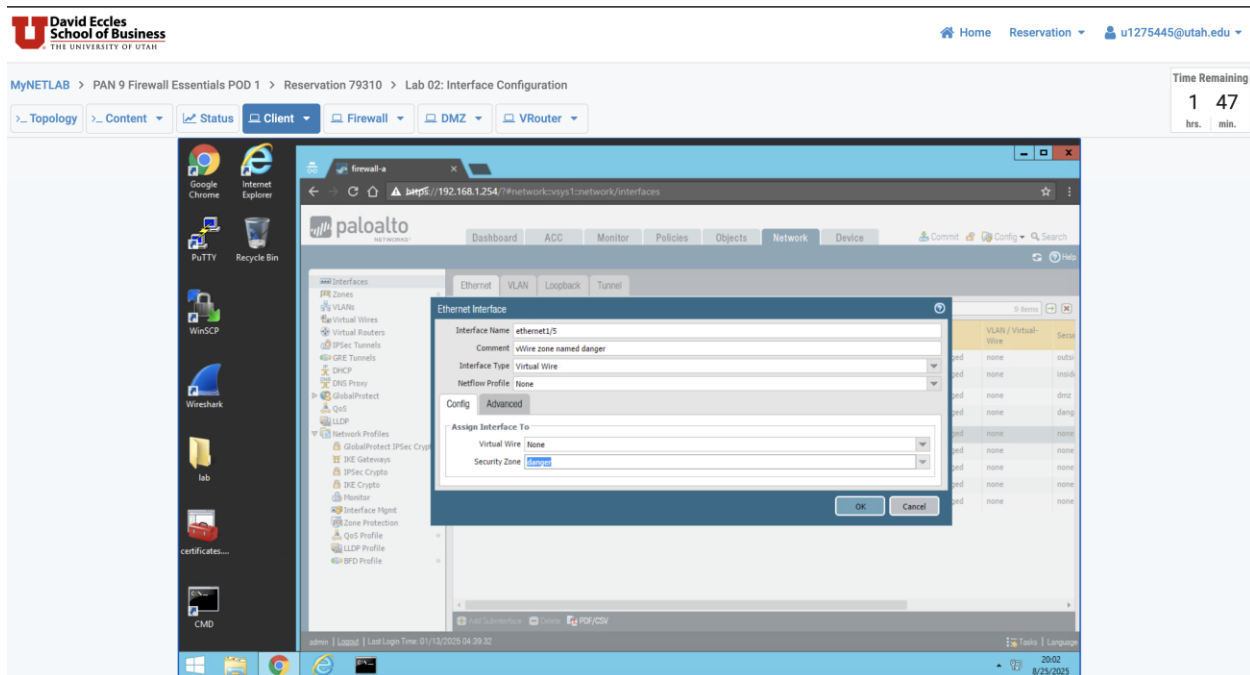
Step 3: This window displays the Zone Configuration for the "Outside" zone, as shown in the lab topology. The "Outside" zone is a logical grouping of physical and virtual interfaces on the firewall. It controls Layer 3 traffic flows, as an interface must be assigned to a security zone before it can process traffic.



Section 1.3: Configuring Ethernet Interfaces

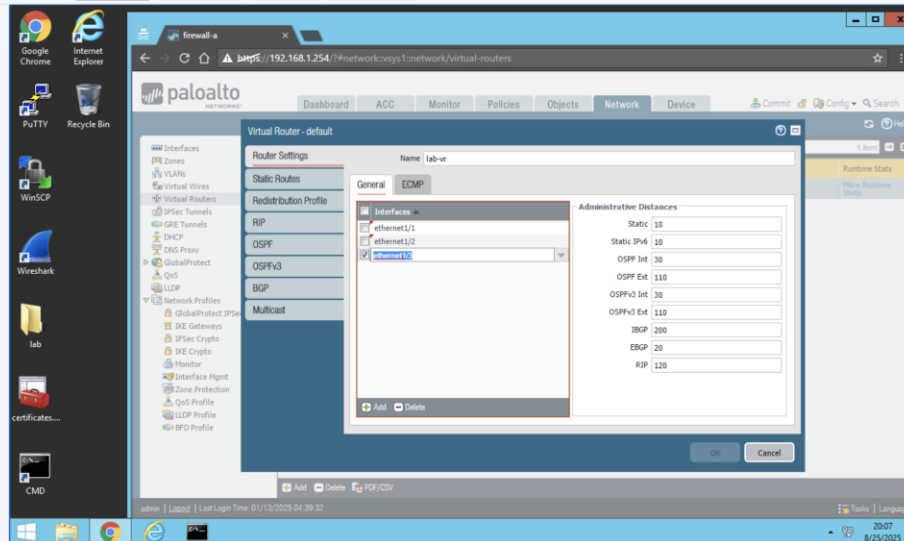
Step 25: The Ethernet Interfaces window displays the interfaces that enable the firewall to

connect to other devices and internal interfaces. In this screenshot, a virtual zone named "Danger" is created, as referenced in Section 1.1, Step 3. This zone is associated with a virtual interface configured as a Virtual Wire (vWire).



Section 1.5: Creating a Virtual Router.

Step 4: Virtual Router named — lab-vr is created below which includes the interfaces: ethernet1/1, ethernet1/2, and ethernet1/3



Section 1.6: Test Connectivity

Step 9: To test the connectivity of the firewall, PuTTY was used. A ping test was performed from the Windows host to its default gateway—Ethernet1/2 with IP address 192.168.1.1—which confirmed successful connectivity.

The screenshot displays a virtual network lab environment. On the left, a Windows desktop is visible with icons for Google Chrome, Internet Explorer, PuTTY, WinSCP, Wireshark, lab, Certificates..., and CMD. The central window is a command prompt titled "CMD" showing the output of a ping command:

```
Microsoft Windows [Version 6.0.6002]
(c) 2009 Microsoft Corporation. All rights reserved.

C:\Windows\System32>ping 192.168.1.1

Pinging 192.168.1.1 with 32 bytes of data:
Reply from 192.168.1.1: bytes=32 time=17ms TTL=64
Reply from 192.168.1.1: bytes=32 time=9ms TTL=64
Reply from 192.168.1.1: bytes=32 time=4ms TTL=64
Reply from 192.168.1.1: bytes=32 time=14ms TTL=64

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 4ms, Maximum = 17ms, Average = 11ms

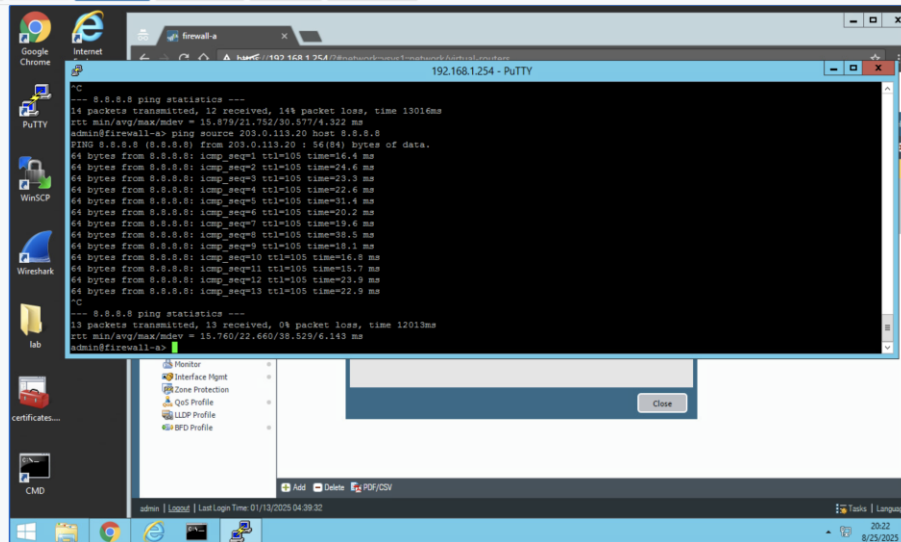
C:\Windows\System32>
```

On the right, a network configuration tool is open, showing a table with columns: OSPF, OSPFv3, BGP, Multicast, and Runtime Stats. The table is currently empty. The bottom status bar shows the user is logged in as 'admin' and the last login time was '01/13/2025 04:39:32'.

Section 1.7: Modifying Outside Interface Configuration

Step 14: In this step, Ethernet1/1 is reconfigured with a static IP address: 203.0.113.20/24, along with a static route pointing to the virtual router's next-hop IP address: 203.0.113.1.

To verify external connectivity, a ping test was executed from the firewall to the public IP 8.8.8.8 using PuTTY, and the test was successful.



```
C:\>-- 8.8.8.8 ping statistics ---
14 packets transmitted, 12 received, 14% packet loss, time 13016ms
rtt min/avg/max/mdev = 15.879/21.782/30.277/4.322 ms
admin@firewall-a> ping source 203.0.113.20 host 8.8.8.8
PING 8.8.8.8 (8.8.8.8) from 203.0.113.20 : 64(64) bytes of data.
64 bytes from 8.8.8.8: icmp_seq=1 ttl=105 time=16.4 ms
64 bytes from 8.8.8.8: icmp_seq=2 ttl=105 time=16.4 ms
64 bytes from 8.8.8.8: icmp_seq=3 ttl=105 time=23.3 ms
64 bytes from 8.8.8.8: icmp_seq=4 ttl=105 time=22.6 ms
64 bytes from 8.8.8.8: icmp_seq=5 ttl=105 time=21.4 ms
64 bytes from 8.8.8.8: icmp_seq=6 ttl=105 time=20.2 ms
64 bytes from 8.8.8.8: icmp_seq=7 ttl=105 time=19.6 ms
64 bytes from 8.8.8.8: icmp_seq=8 ttl=105 time=38.5 ms
64 bytes from 8.8.8.8: icmp_seq=9 ttl=105 time=18.1 ms
64 bytes from 8.8.8.8: icmp_seq=10 ttl=105 time=16.8 ms
64 bytes from 8.8.8.8: icmp_seq=11 ttl=105 time=15.7 ms
64 bytes from 8.8.8.8: icmp_seq=12 ttl=105 time=23.5 ms
64 bytes from 8.8.8.8: icmp_seq=13 ttl=105 time=22.5 ms
^C
-- 8.8.8.8 ping statistics ---
13 packets transmitted, 13 received, 0% packet loss, time 12013ms
rtt min/avg/max/mdev = 15.760/22.660/38.529/6.143 ms
admin@firewall-a>
```