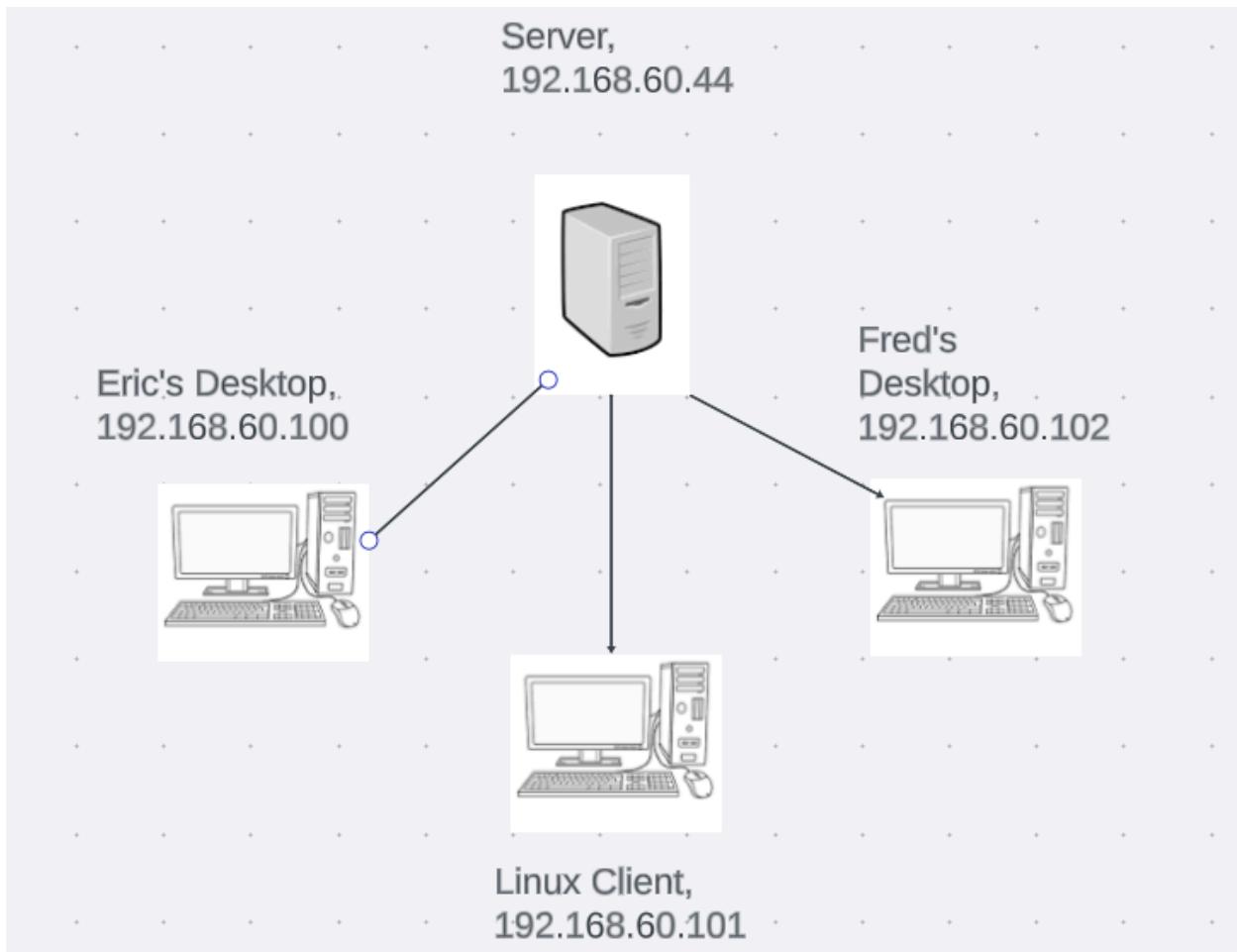


Lab 1

Description: In this lab we started to set up a virtual network security lab using our hypervisor. We created a windows domain controller and a windows client virtual machine. This is the starting foundation for the rest of the class and labs for the future.

Topology:



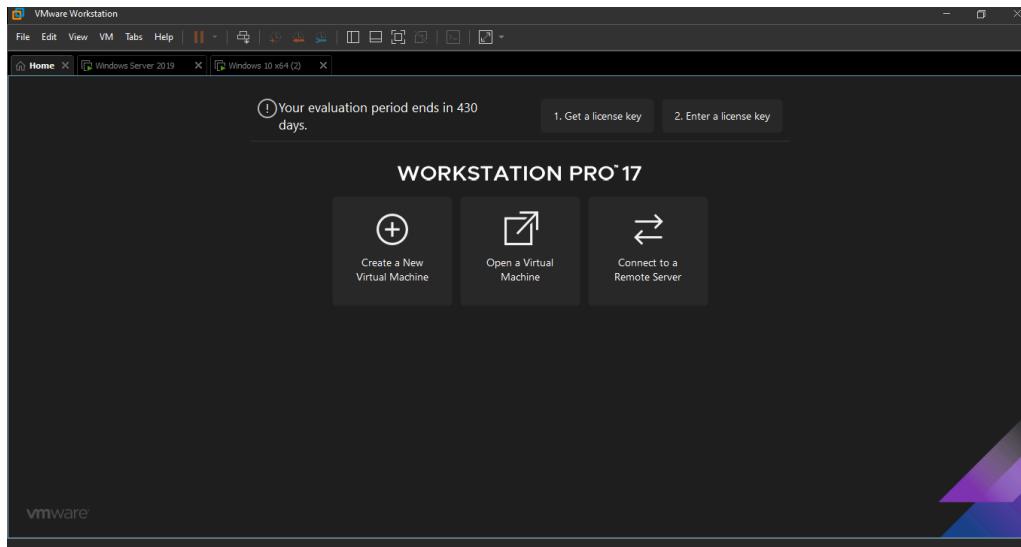
Key Syntax:

There was not really any syntax in this lab that I used, but I had to spend some time fiddling with the network settings, so I would like to add some of those terms here.

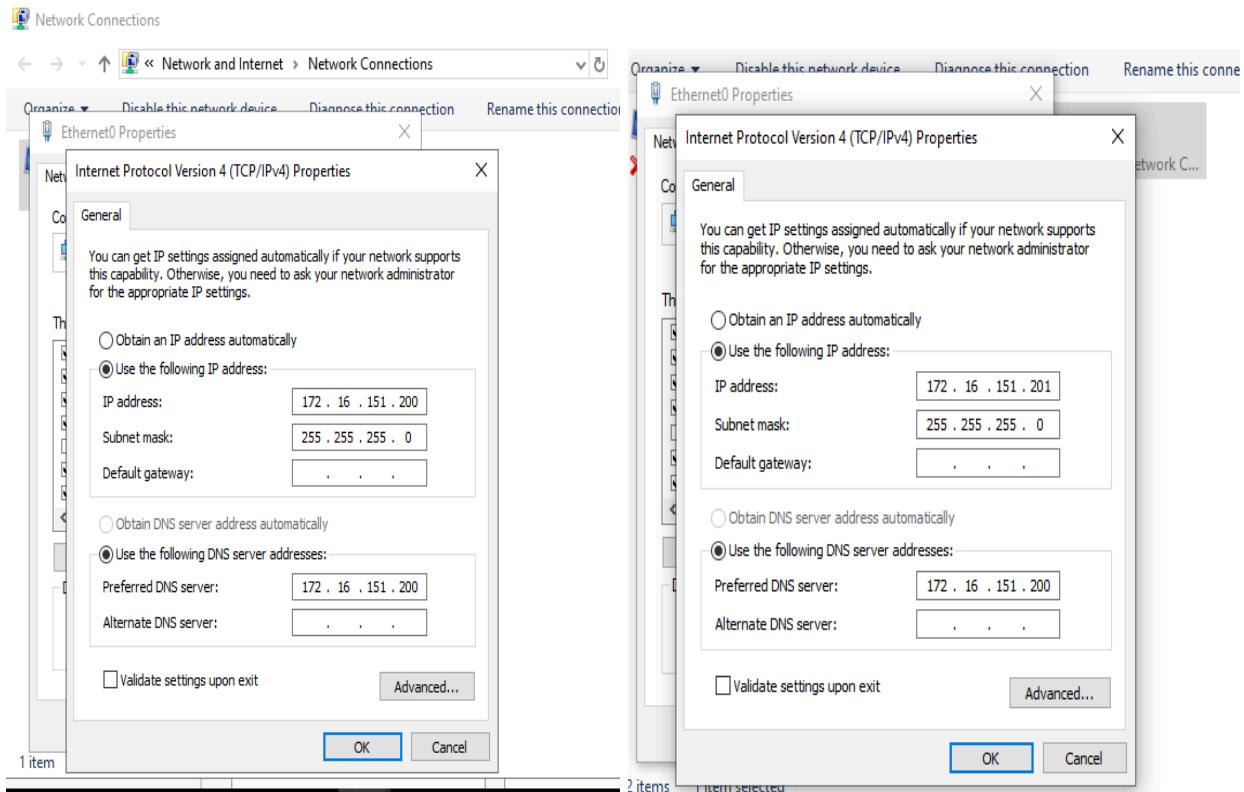
Term	Definition
Bridged network	The vm is connected to the physical adapter of the host machine
Host only network	The vm can communicate with the host and other vms but they are isolated
NAT network	The vm takes the hosts IP address and network connection

Verification:

This is an image of task one being complete, my configured hypervisor.



These images show both my windows server 2019 VM and my windows 10 client VM IP's being configured.



This image shows a successful ping from the windows 10 client VM to the 2019 server, hacker.testlab.

```
c:\> Command Prompt
Microsoft Windows [Version 10.0.19045.2006]
(c) Microsoft Corporation. All rights reserved.

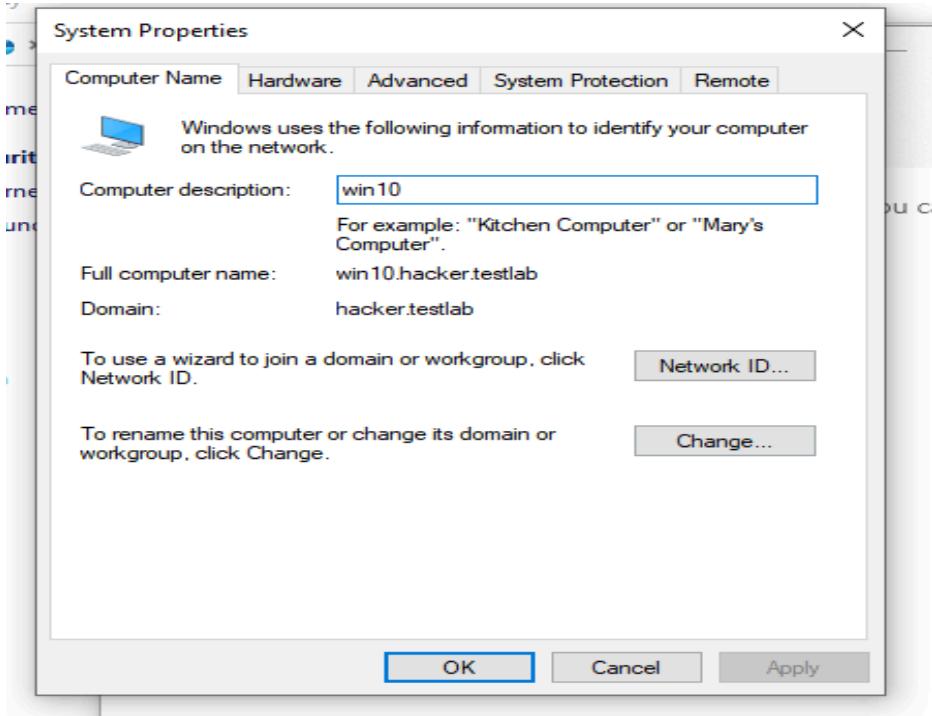
C:\Users\eg0311>ping hacker.testlab

Pinging hacker.testlab [172.16.151.200] with 32 bytes of data:
Reply from 172.16.151.200: bytes=32 time<1ms TTL=128
Reply from 172.16.151.200: bytes=32 time<1ms TTL=128
Reply from 172.16.151.200: bytes=32 time<1ms TTL=128
Reply from 172.16.151.200: bytes=32 time=1ms TTL=128

Ping statistics for 172.16.151.200:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\Users\eg0311>
```

This image shows that I have made the windows 10 client VM part of the domain, hacker.testlab.



This image shows that I was able to add my Windows 10 VM as a user to the server (I know that I did not get screenshots for some of the steps involving configuring the server, but I hope these screenshots prove that I was successful in setting it up).

The screenshot shows the 'Active Directory Users and Computers' snap-in. The left pane shows a tree view of the directory structure under 'hacker.testlab'. The right pane displays a table of users and groups:

Name	Type	Description
Denied ROD...	Security Group...	Members in this group c...
DnsAdmins	Security Group...	DNS Administrators Gro...
DnsUpdateP...	Security Group...	DNS clients who are per...
Domain Ad...	Security Group...	Designated administrato...
Domain Co...	Security Group...	All workstations and ser...
Domain Con...	Security Group...	All domain controllers i...
Domain Gue...	Security Group...	All domain guests
Domain Users	Security Group...	All domain users
eg03	User	
Enterprise A...	Security Group...	Designated administrato...
Enterprise K...	Security Group...	Members of this group ...
Enterprise R...	Security Group...	Members of this group ...
Group Polic...	Security Group...	Members in this group c...
Guest	User	Built-in account for gue...
Key Admins	Security Group...	Members of this group ...
Protected Us...	Security Group...	Members of this group ...
RAS and IAS ...	Security Group...	Servers in this group can...
Read-only D...	Security Group...	Members of this group ...
Schema Ad...	Security Group...	Designated administrato...
win10_user	User	

The user account 'win10_user' is highlighted in blue at the bottom of the list.

This screenshot shows completion of task 3, downloading a Kali linux .iso file. I have not got to setting it up yet, but it is ready.

	V...	9/27/2023 3:02 AM	Application	622,471 KB
	S...	9/27/2023 6:44 AM	PNG File	2 KB
	kali-linux-2023.3-installer-amd64.iso	9/27/2023 8:35 AM	Disc Image File	4,096,000 KB
	..	9/27/2023 4:16 AM	Disc Image File	5,519,234 KB
	..	9/27/2023 4:43 AM	Disc Image File	5,971,862 KB
	C...	9/27/2023 6:43 AM	PNG File	4 KB

Conclusion:

This lab was a nice introduction into what we will be doing over the course of the semester. It was interesting having to find all of the files for the virtual machines online and having to set them up. I struggled with getting the VMs to be able to connect with each other, but after a bit of troubleshooting I was able to get it working. I had to try multiple different sites to see what my problem was, but in the end it all turned out well. This was a good introduction and foundation for what is to come, and I am excited to get more into this course.

References:

1. <https://docs.vmware.com/en/VMware-Workstation-Pro/17/com.vmware.ws.using.doc/GUID-BAFA66C3-81F0-4FCA-84C4-D9F7D258A60A.html>
2. <https://www.minitool.com/backup-tips/vmware-bridged-network-not-working.html>