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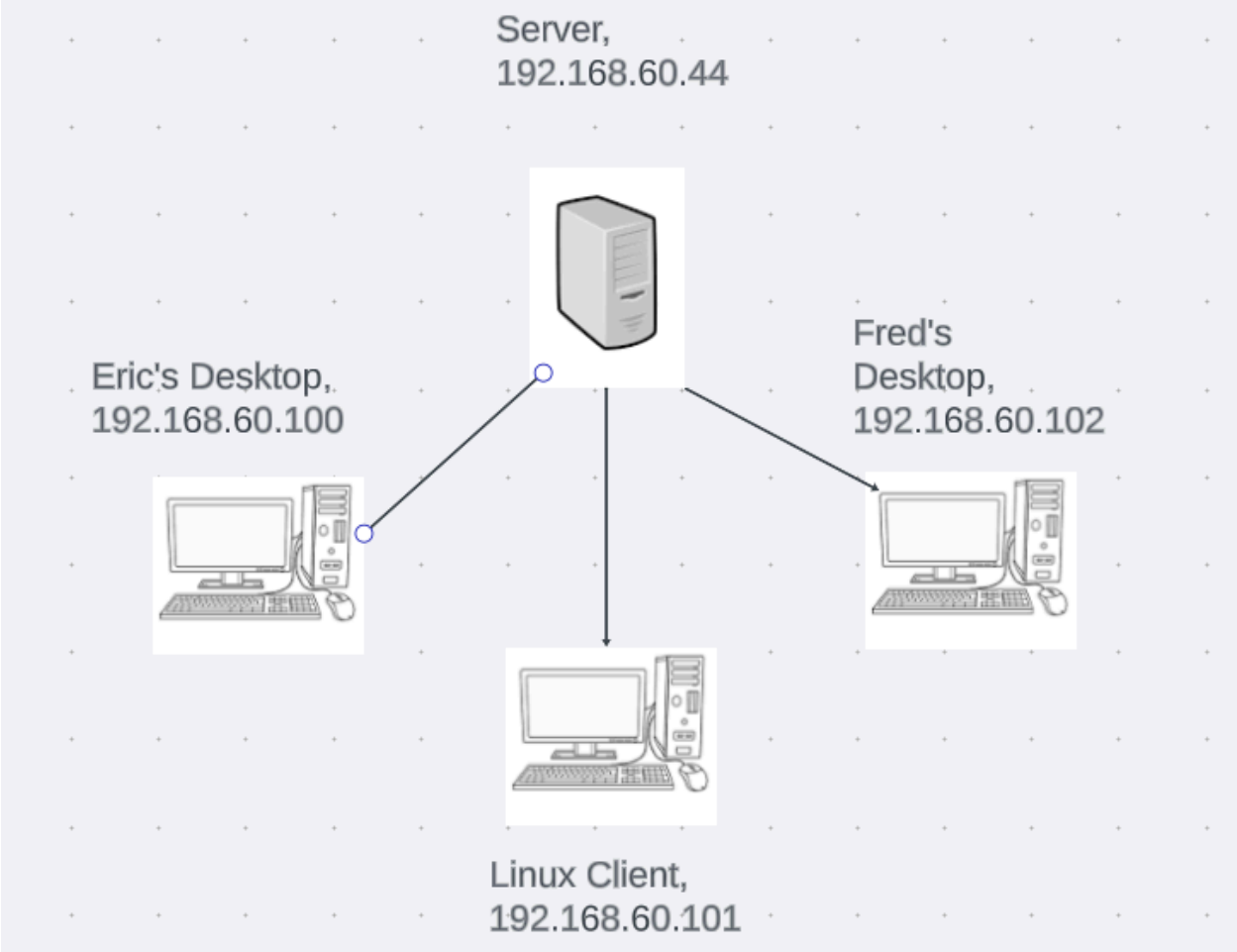
Network Security

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.

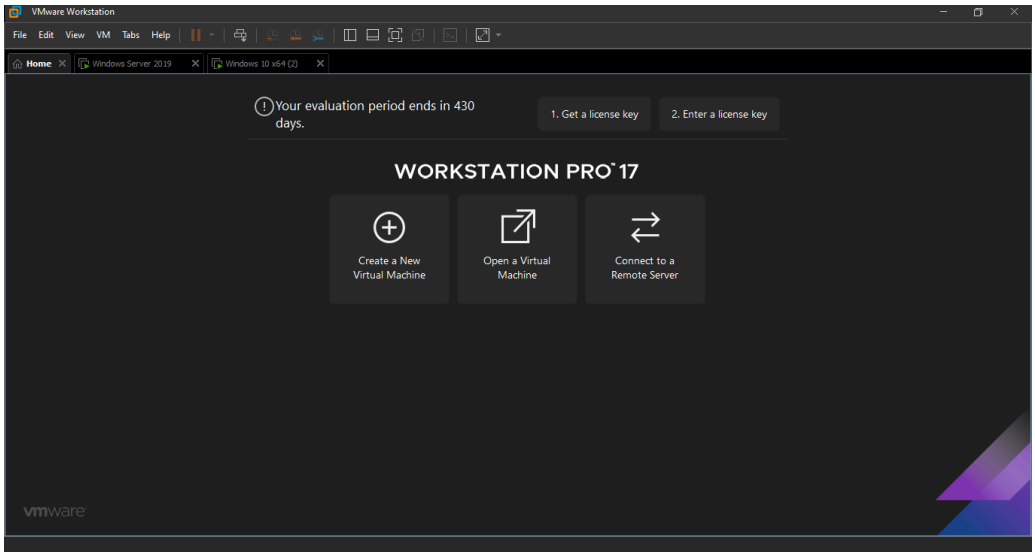
Topology:



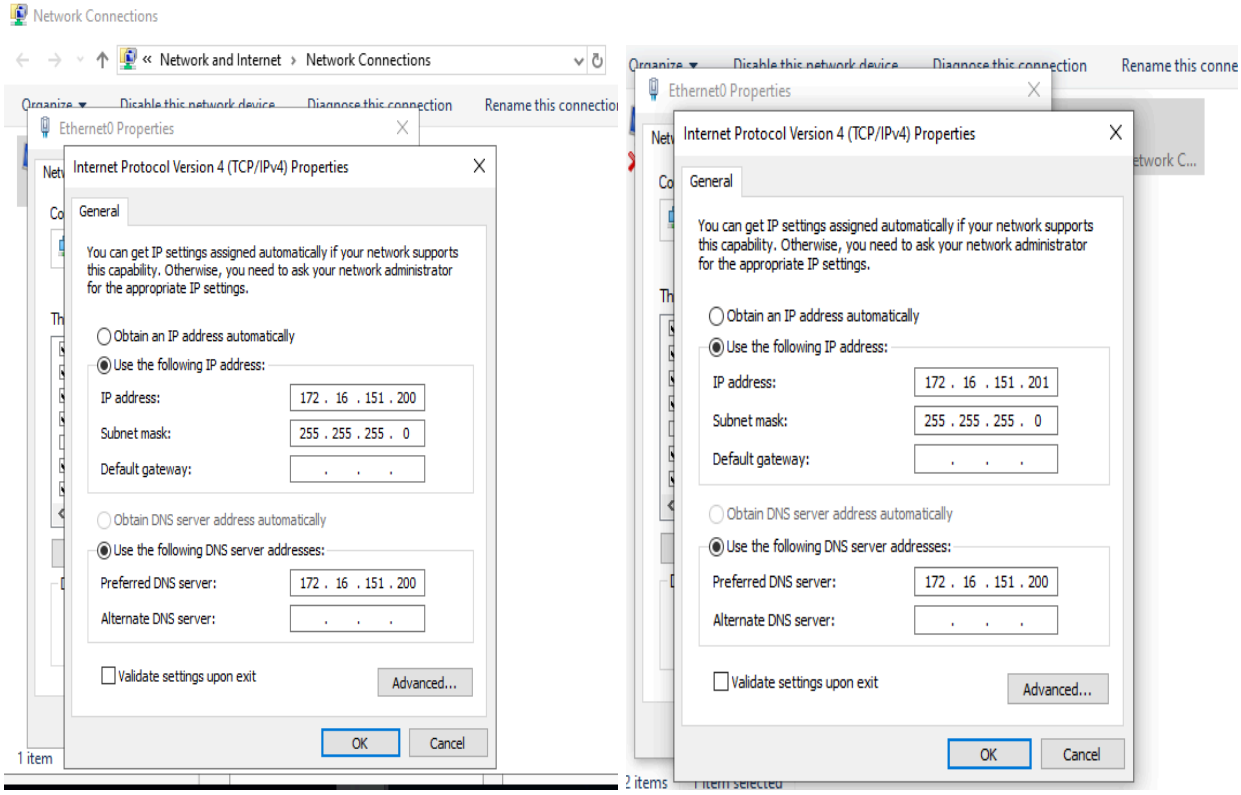
Key Syntax:
There was not really any syntax in this lab that I used, but I had to spend some time fiddling with the network settings, so I would like to add some of those terms here.

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

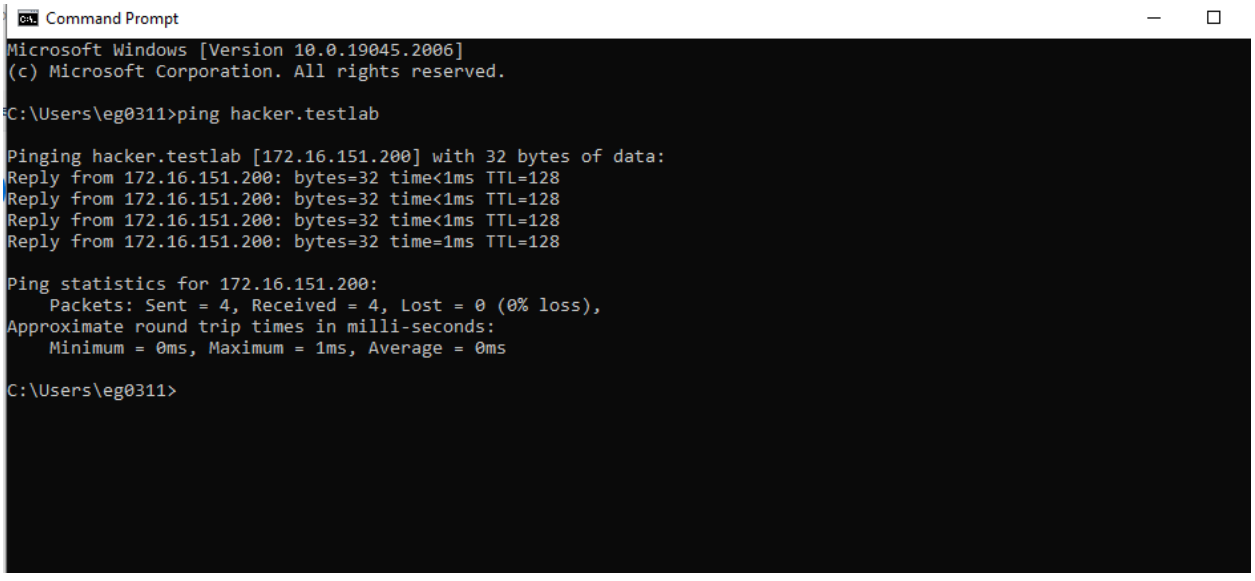
Verification:
This is an image of task one being complete, my configured hypervisor.



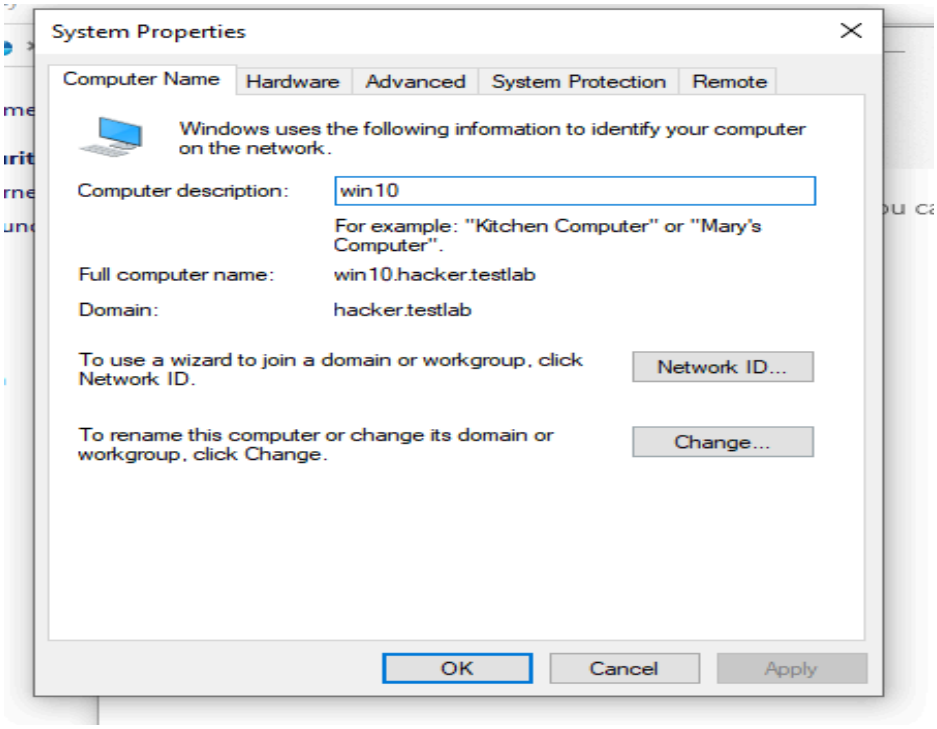
These images show both my windows server 2019 VM and my windows 10 client VM IP's being configured.



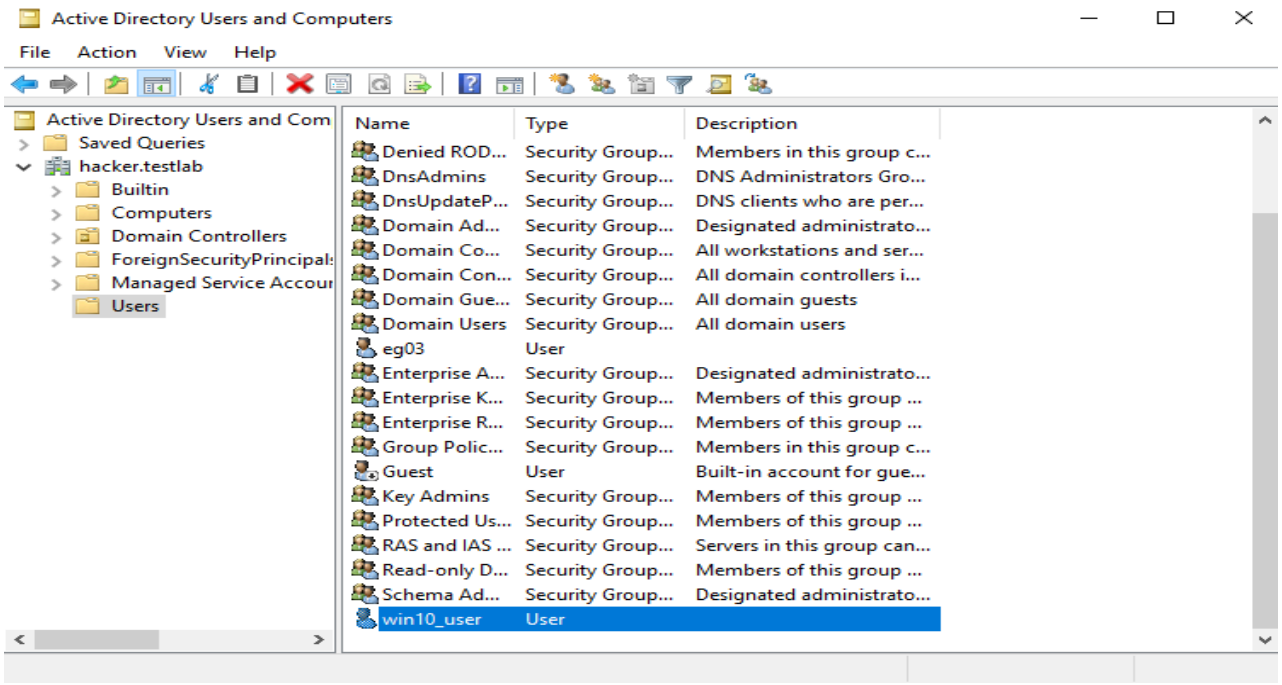
This image shows a successful ping from the windows 10 client VM to the 2019 server, hacker.testlab.



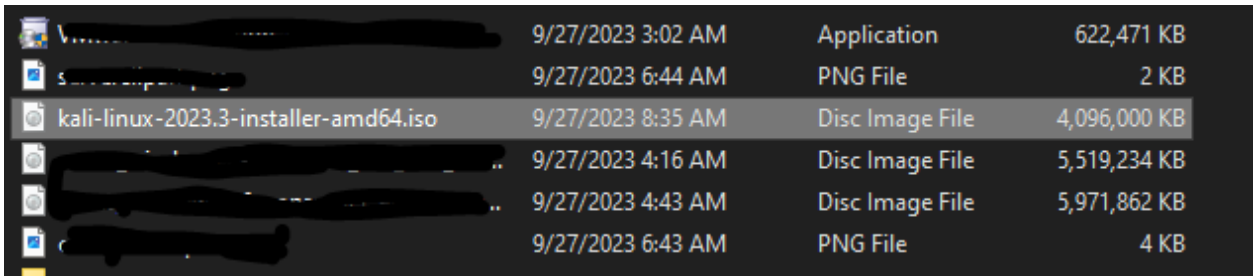
This image shows that I have made the windows 10 client VM part of the domain, hacker.testlab.



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).



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.



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