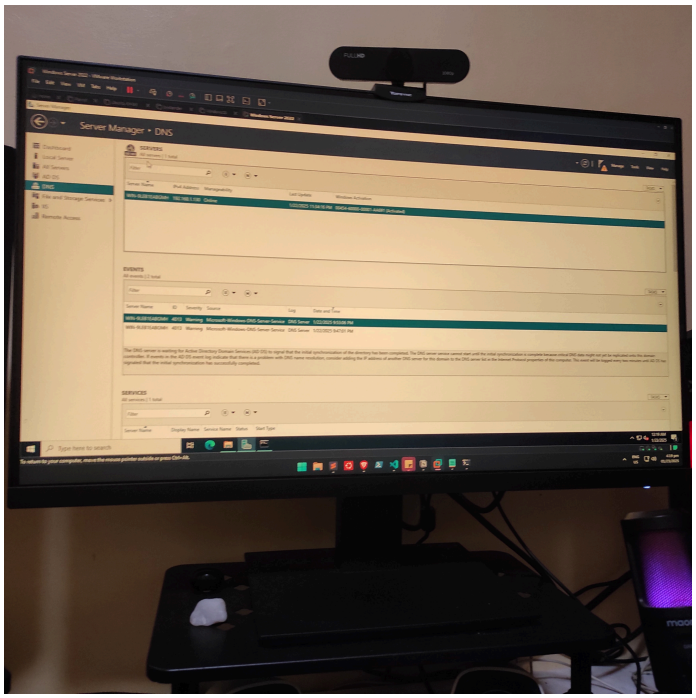
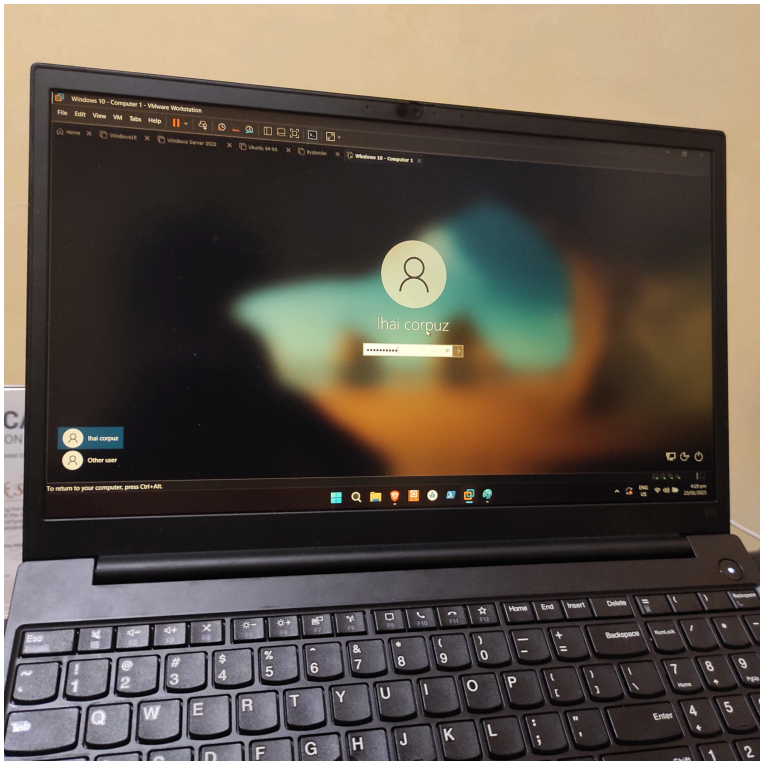
This presentation will guide you through my implementation of an Active Directory and DNS Home Lab within my network and premises.

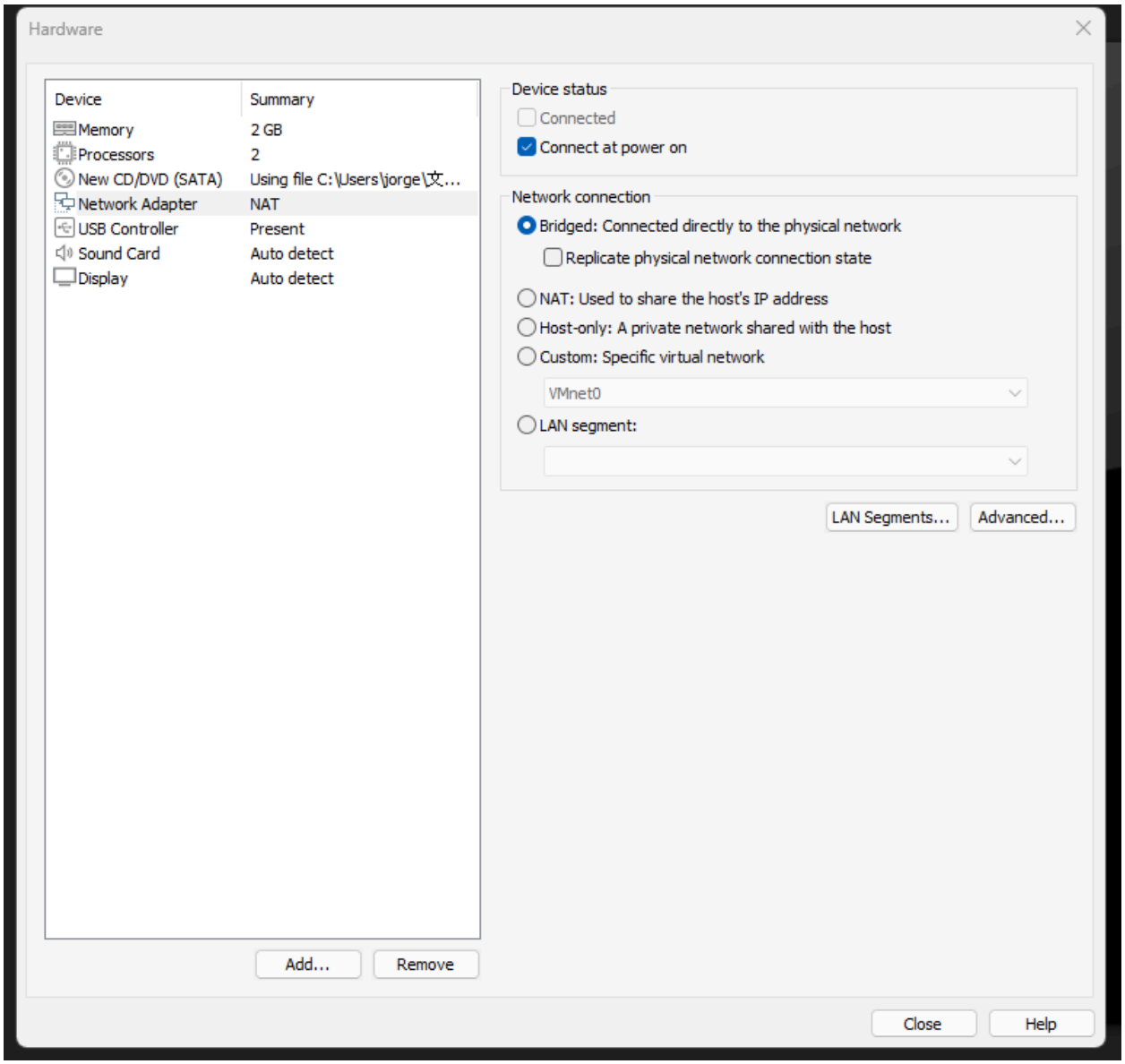
DNS Server:



User Computer:

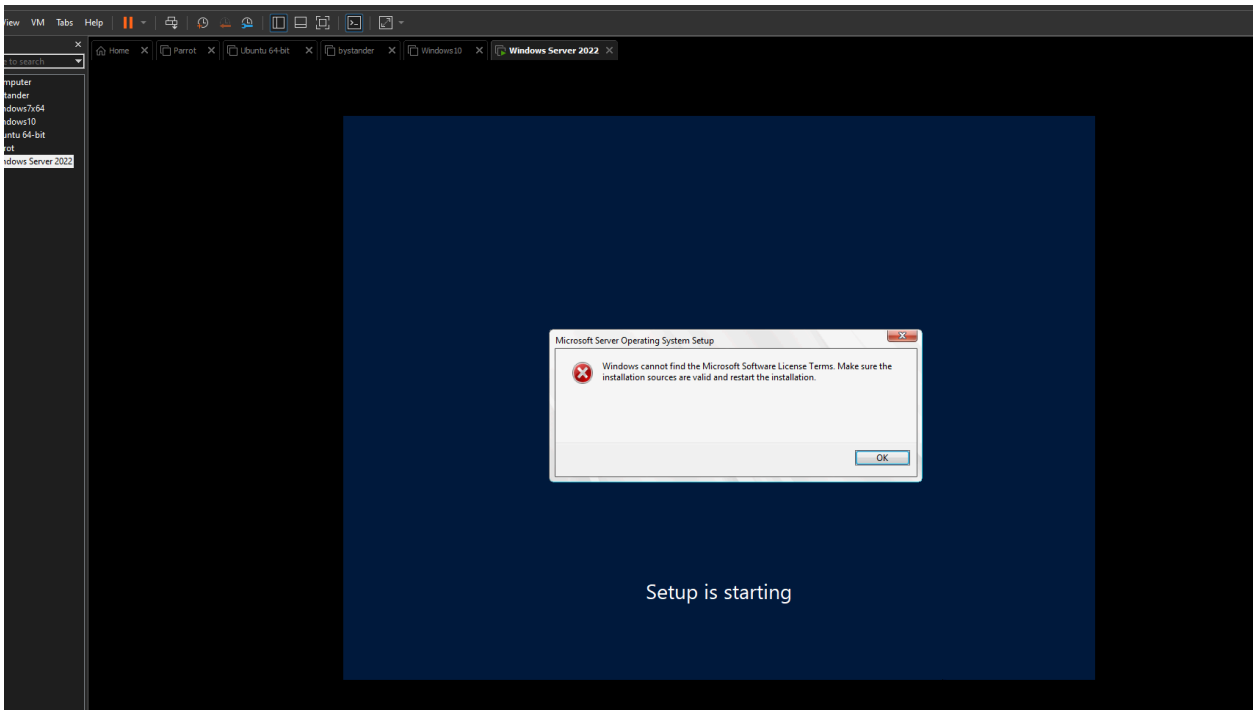


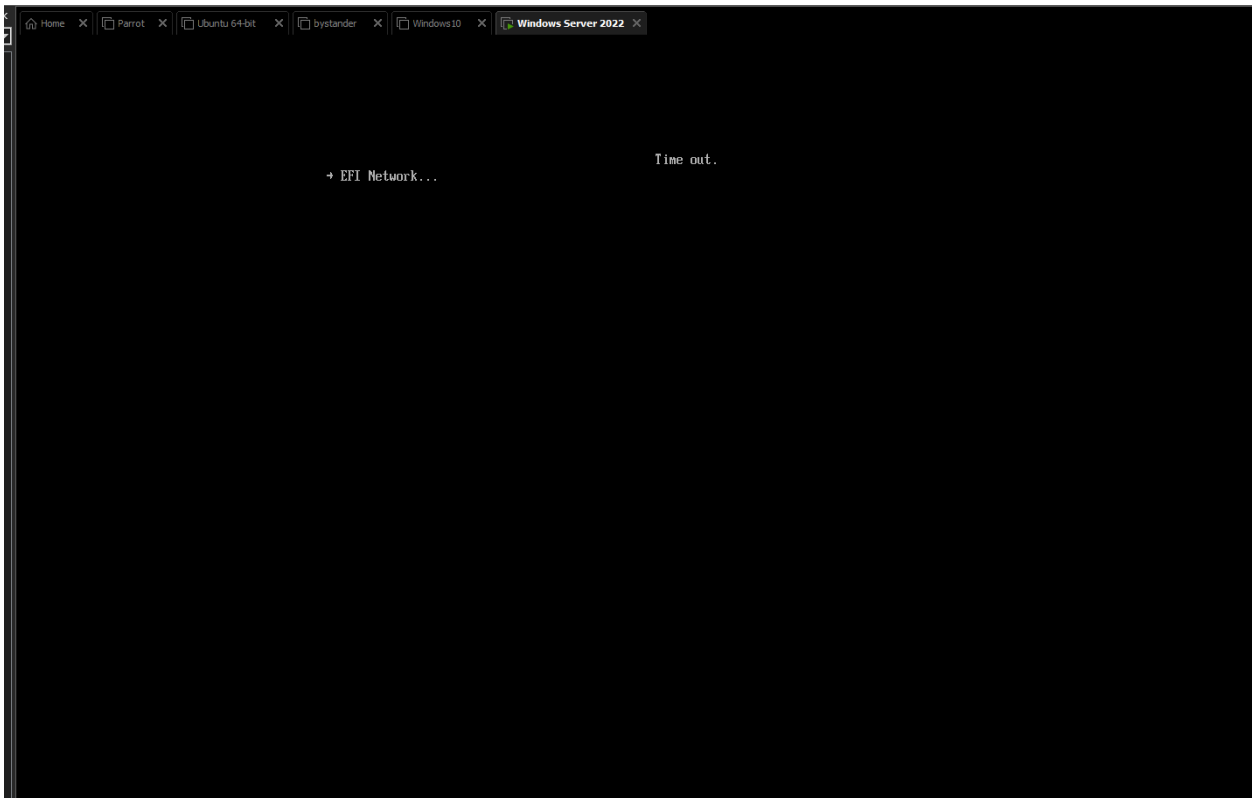
Installing Windows Server 2022



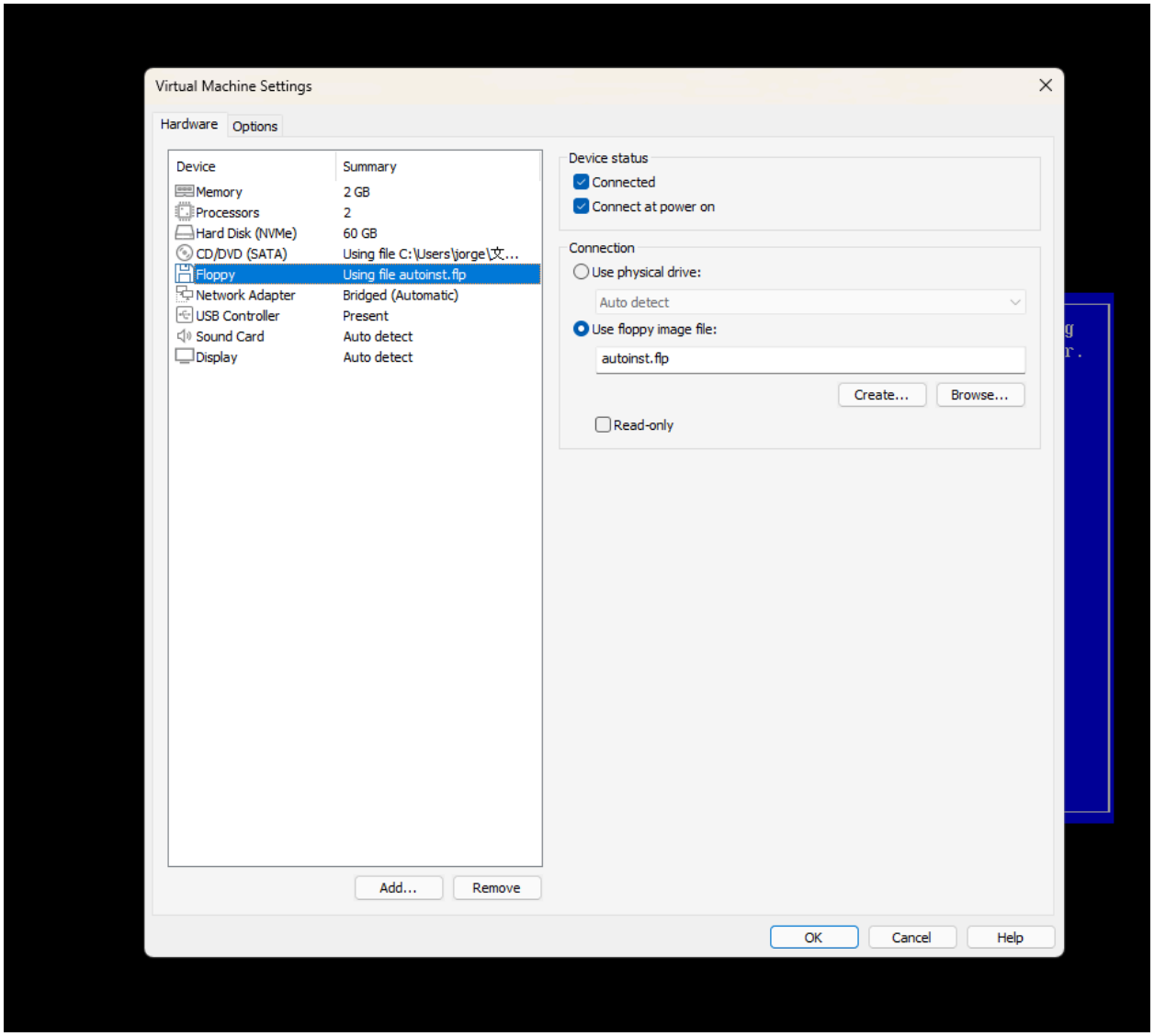
- I selected Bridge instead of NAT because I want the Server to reflect in my network.

Fixing Common Problems in Installing Windows Server:

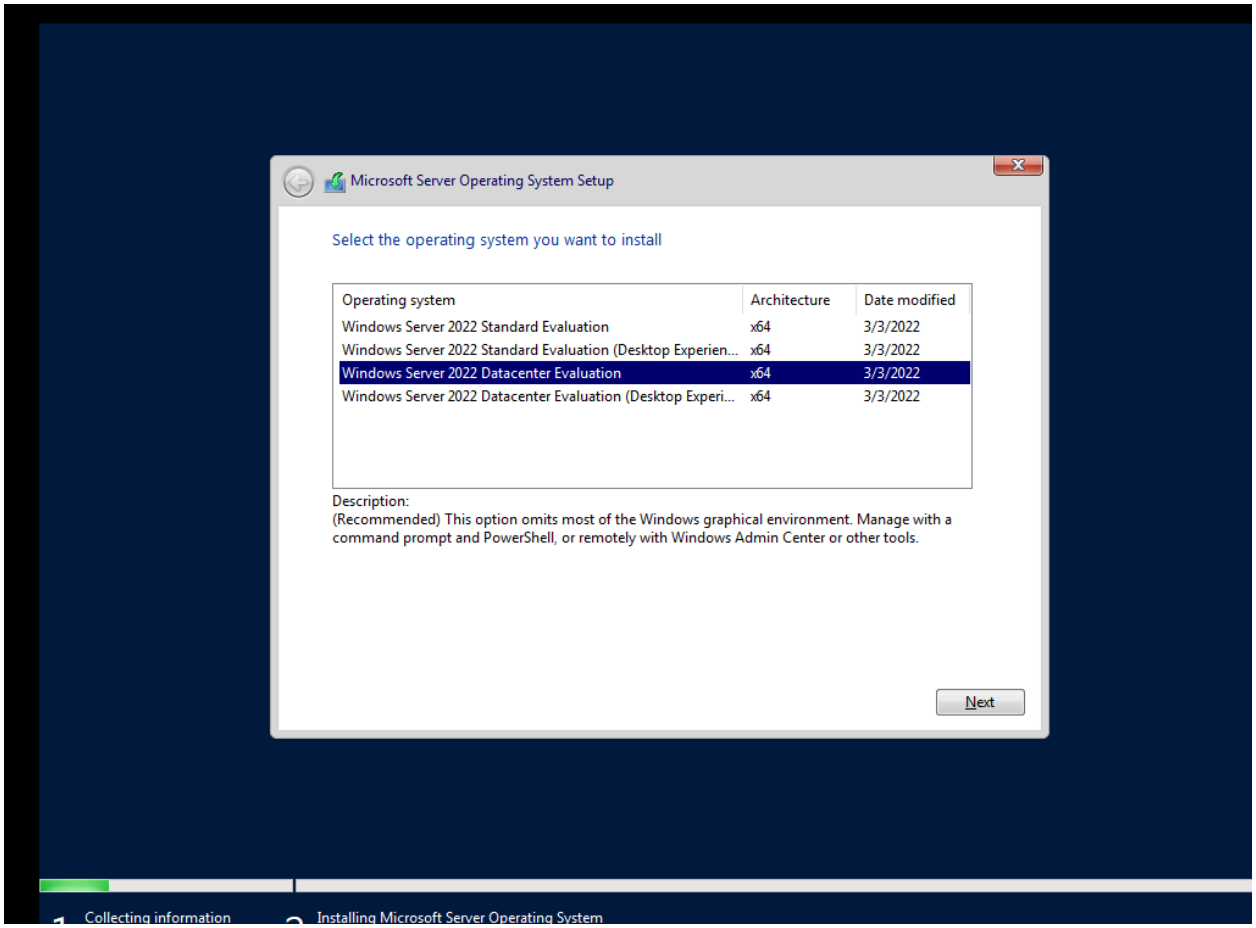




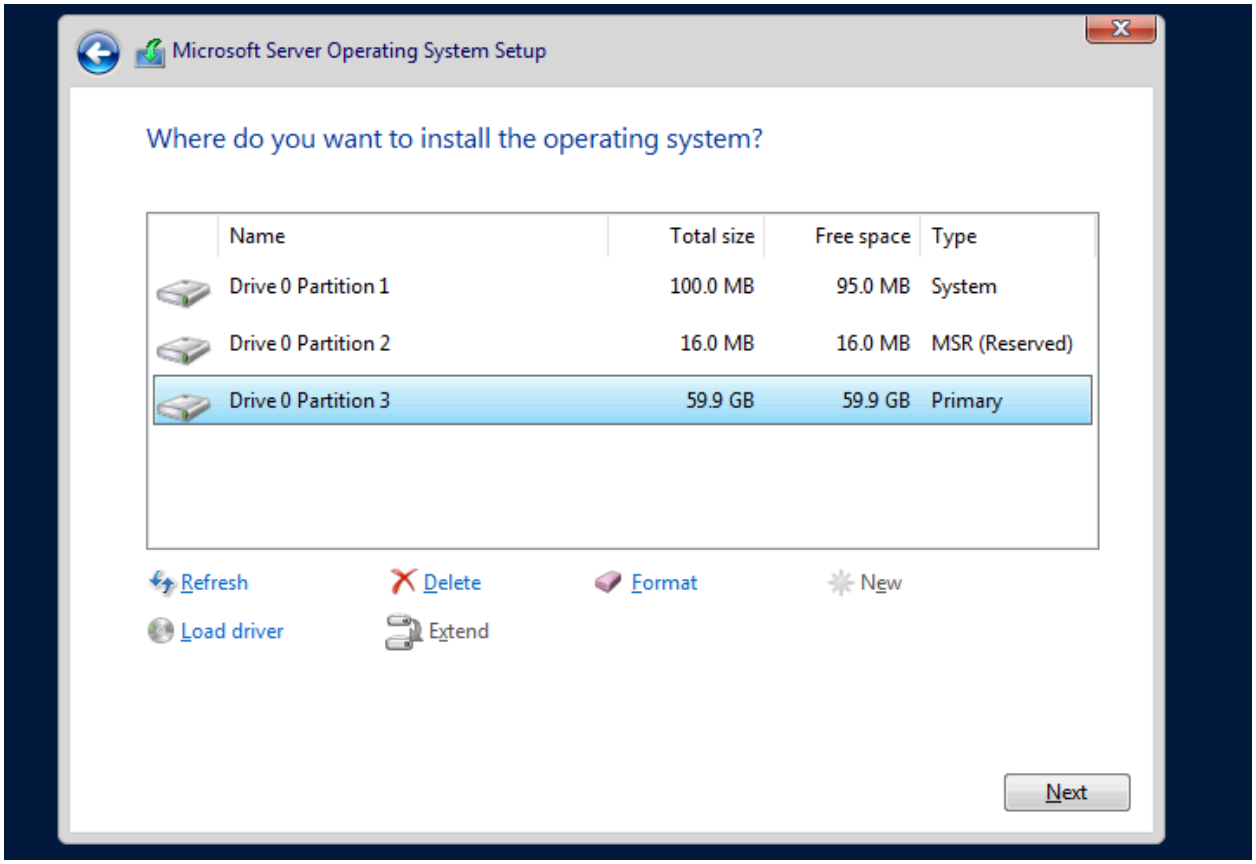
- This is because the autoinst.flp is being booted, not the .iso itself. So we will remove the Floppy device in the Virtual Machine Settings.



- Now you can install the Iso.

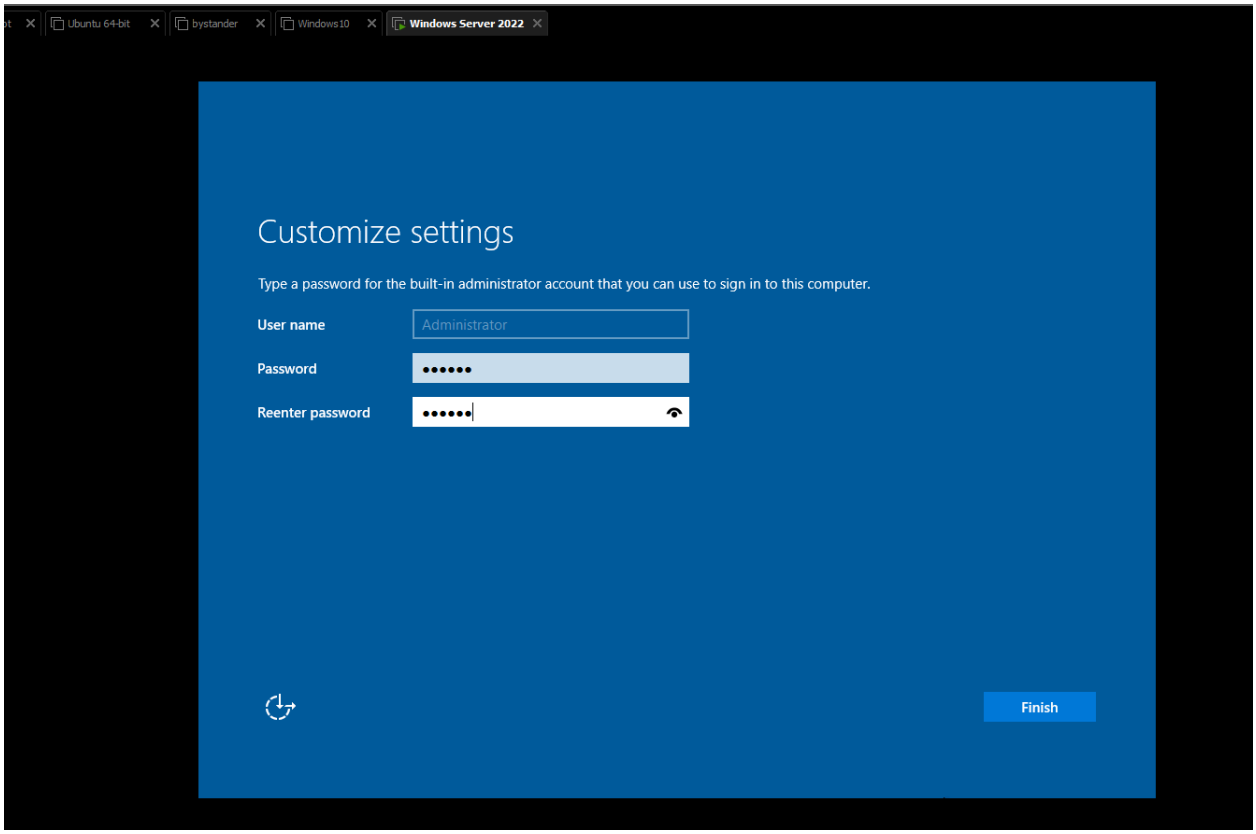


- Since we are not using two or more Virtual Machines, we will only use Standard Evaluation to save storage space. However, I always recommend the Datacenter Evaluation Desktop Experience for future-proofing.

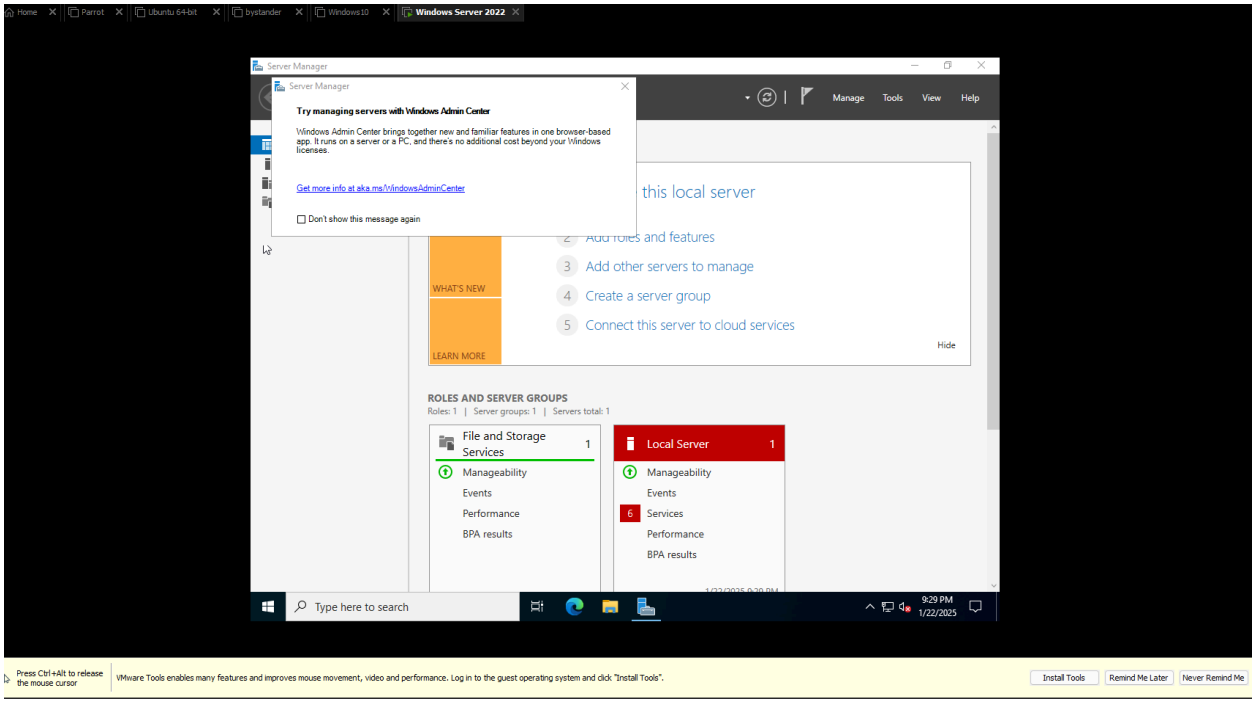


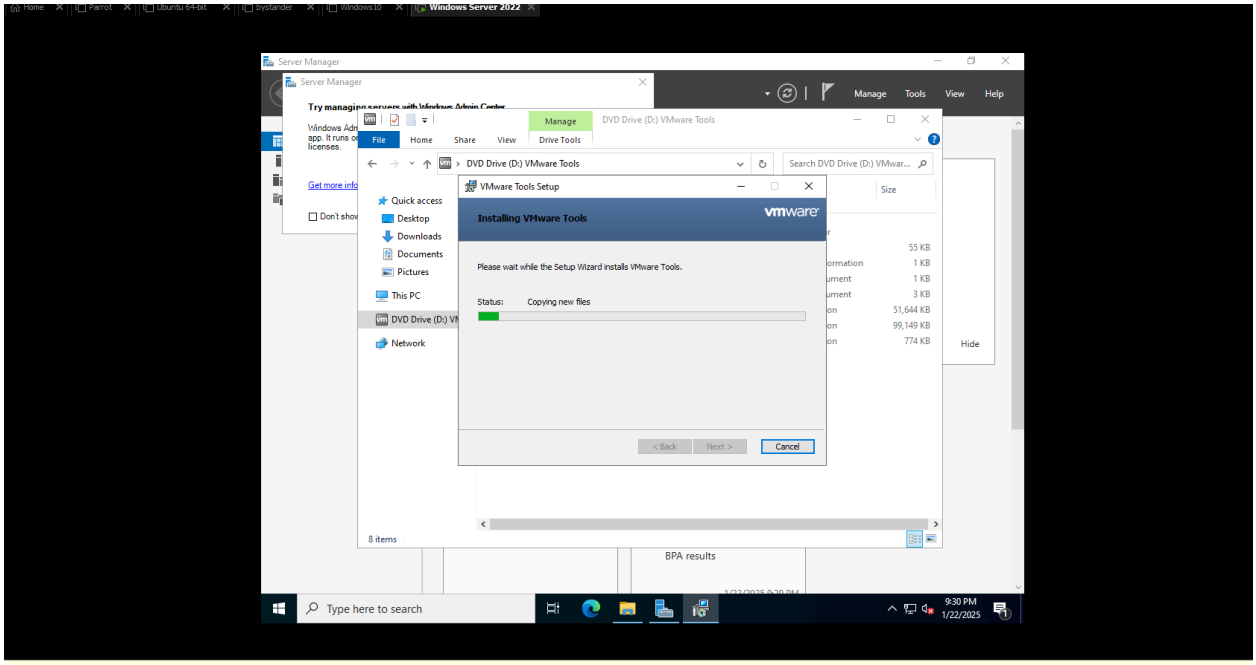
- My best practice is to always create a backup partition so that when things go wrong, we can still retrieve the system.

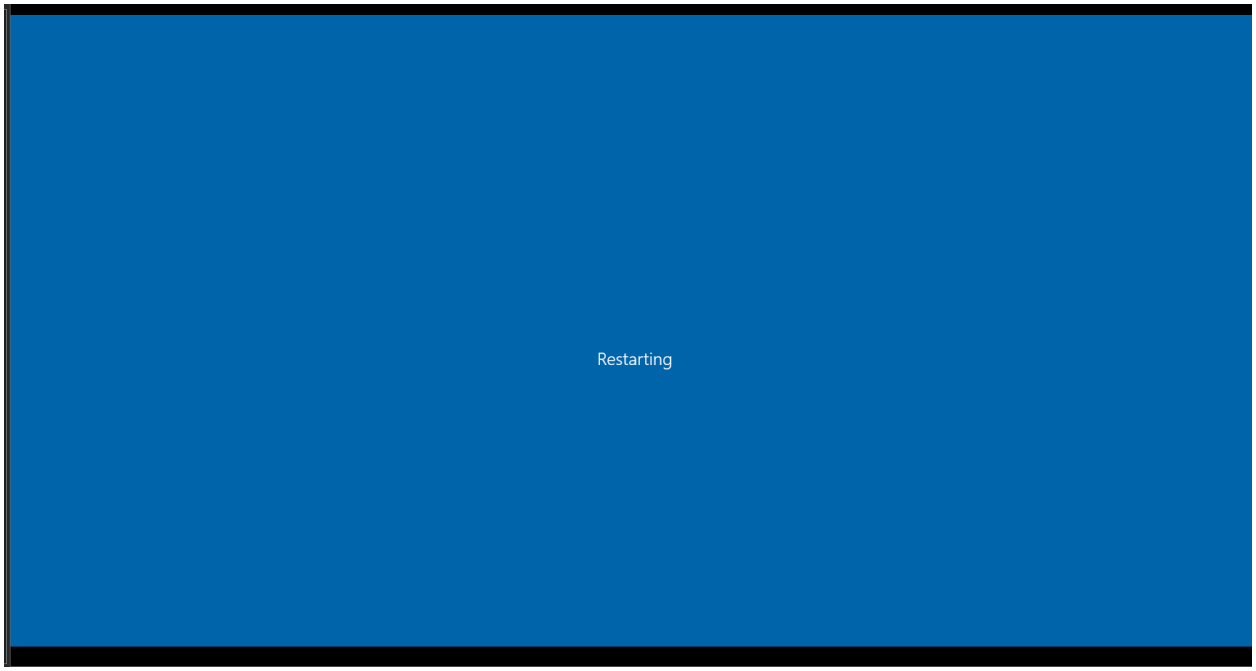
Setting up a password:



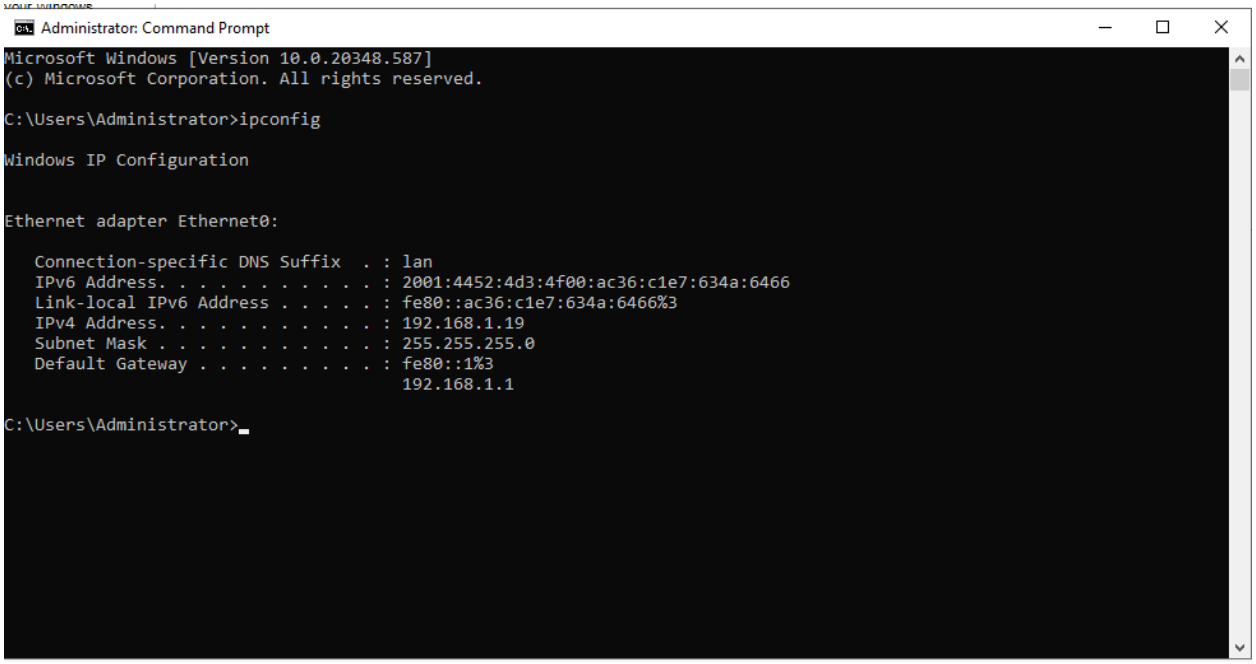
Installing the Vmware Tools



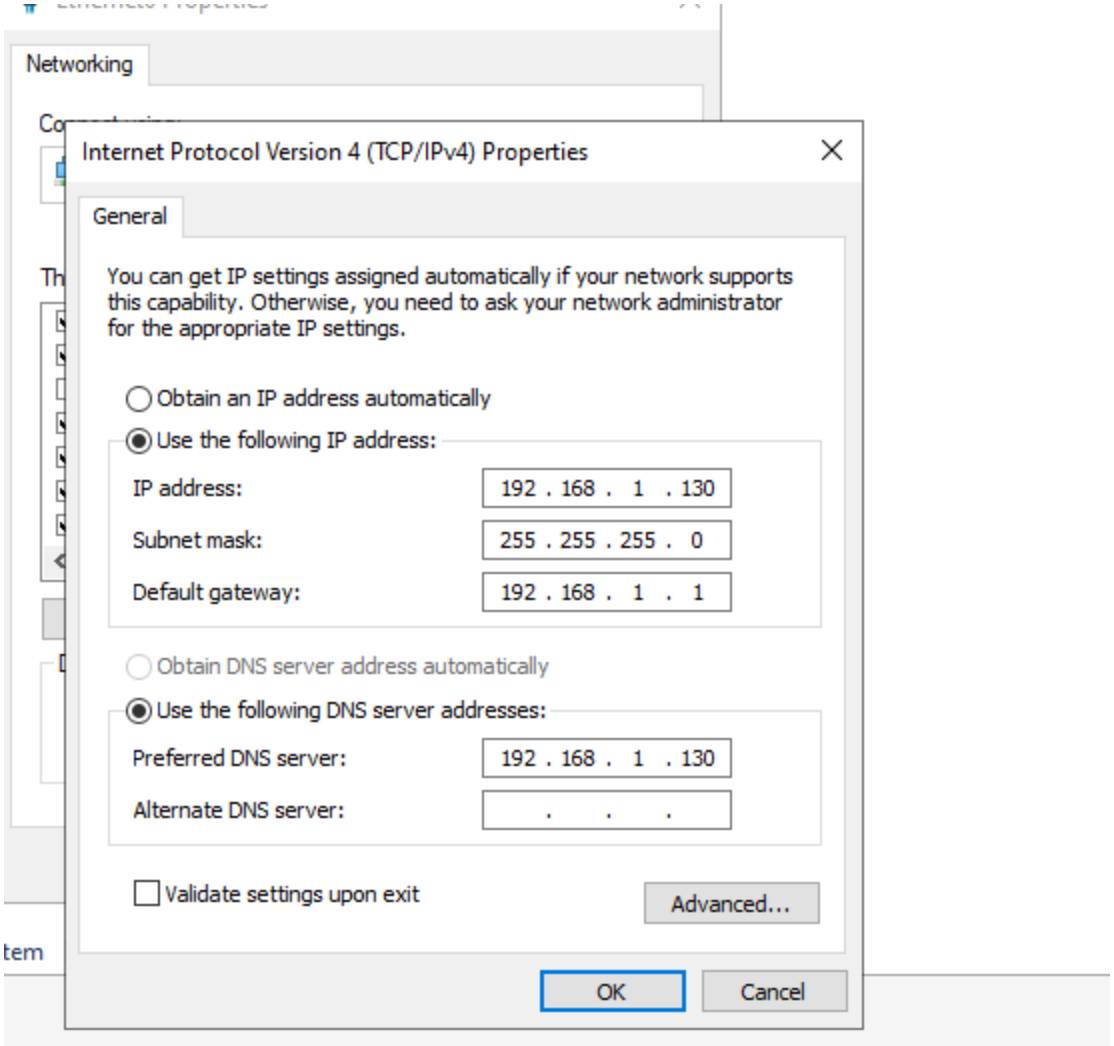




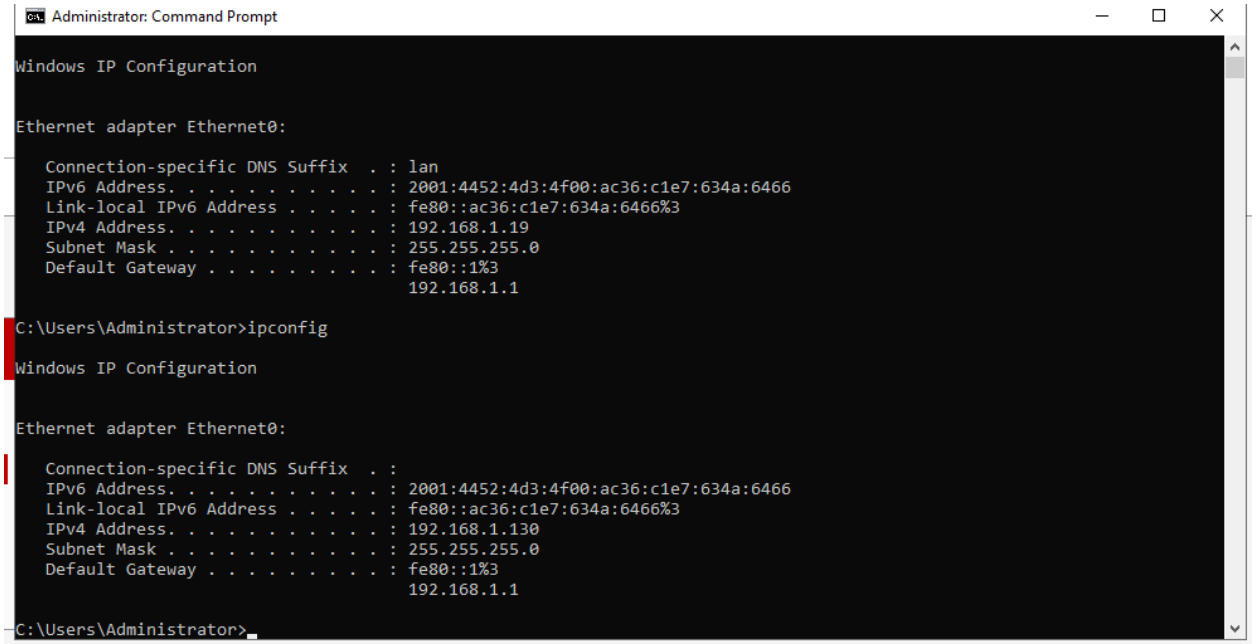
Configuring the IP of the Server:



- I will change this to a static IP so that the IP will not be changed when the server shuts down or restarts. Changing IP in the DNS is crucial because this will lead to some problems if not configured properly.

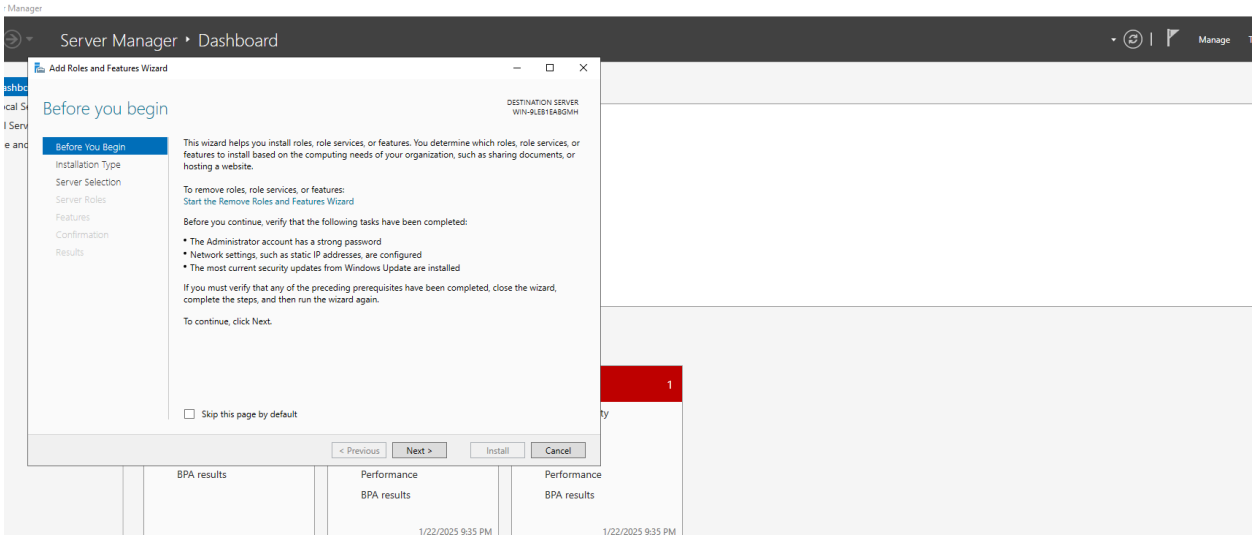


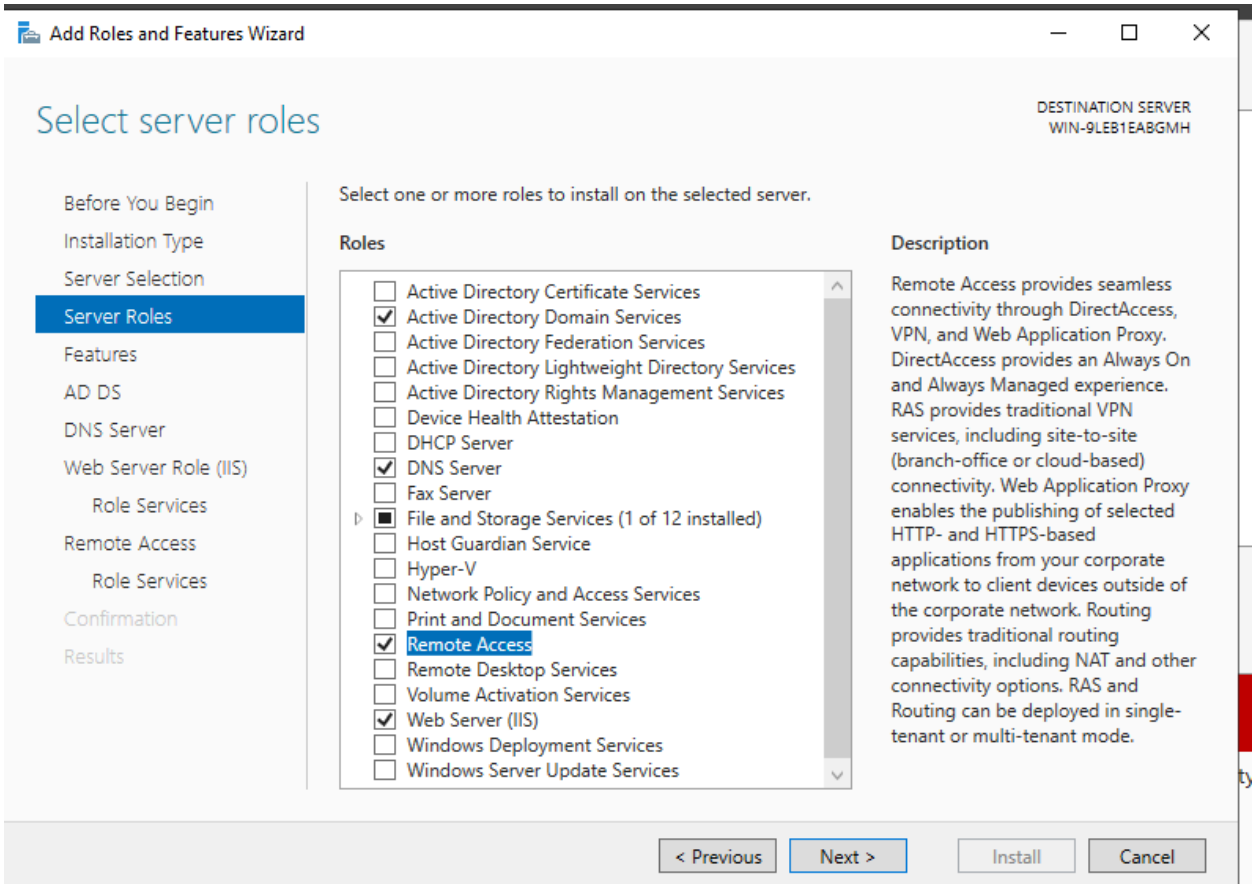
- I'm using 130 as the third octet because the number of users in my home never exceeds 20. So, it's a good idea to put it in a higher place to prevent future IP problems. Also, I put the preferred DNS server the same as the IP Address because I will use this IP as a DNS Server.



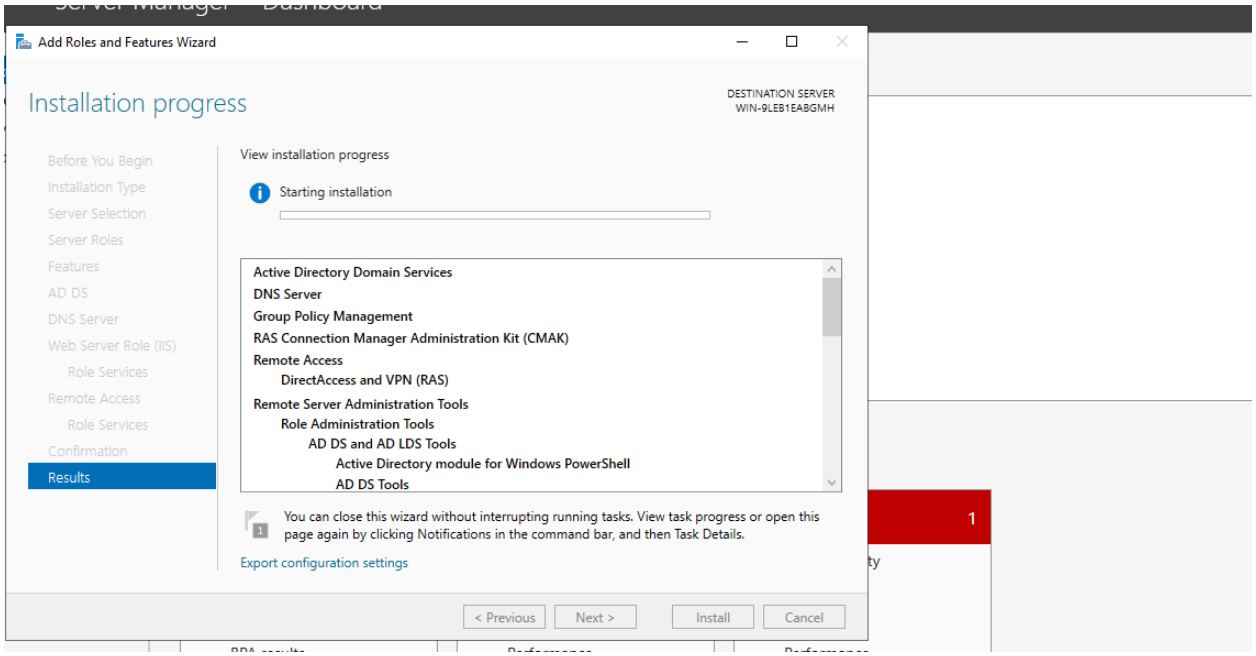
- Now my IP is set and is ready to install AD and DNS

Installing the AD and DNS

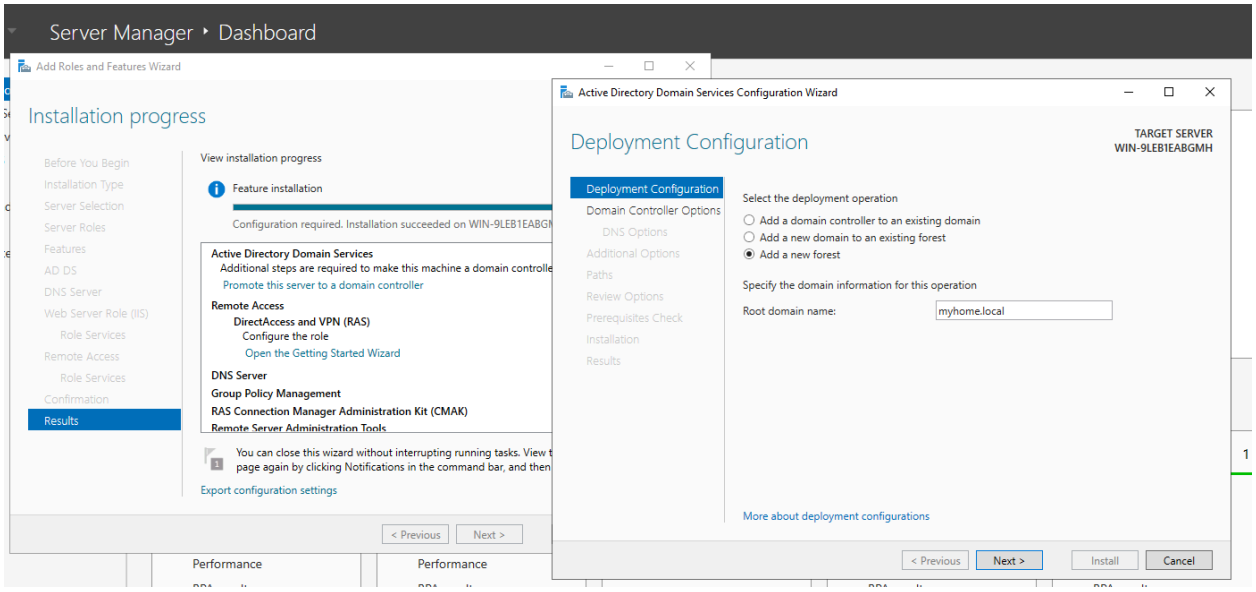




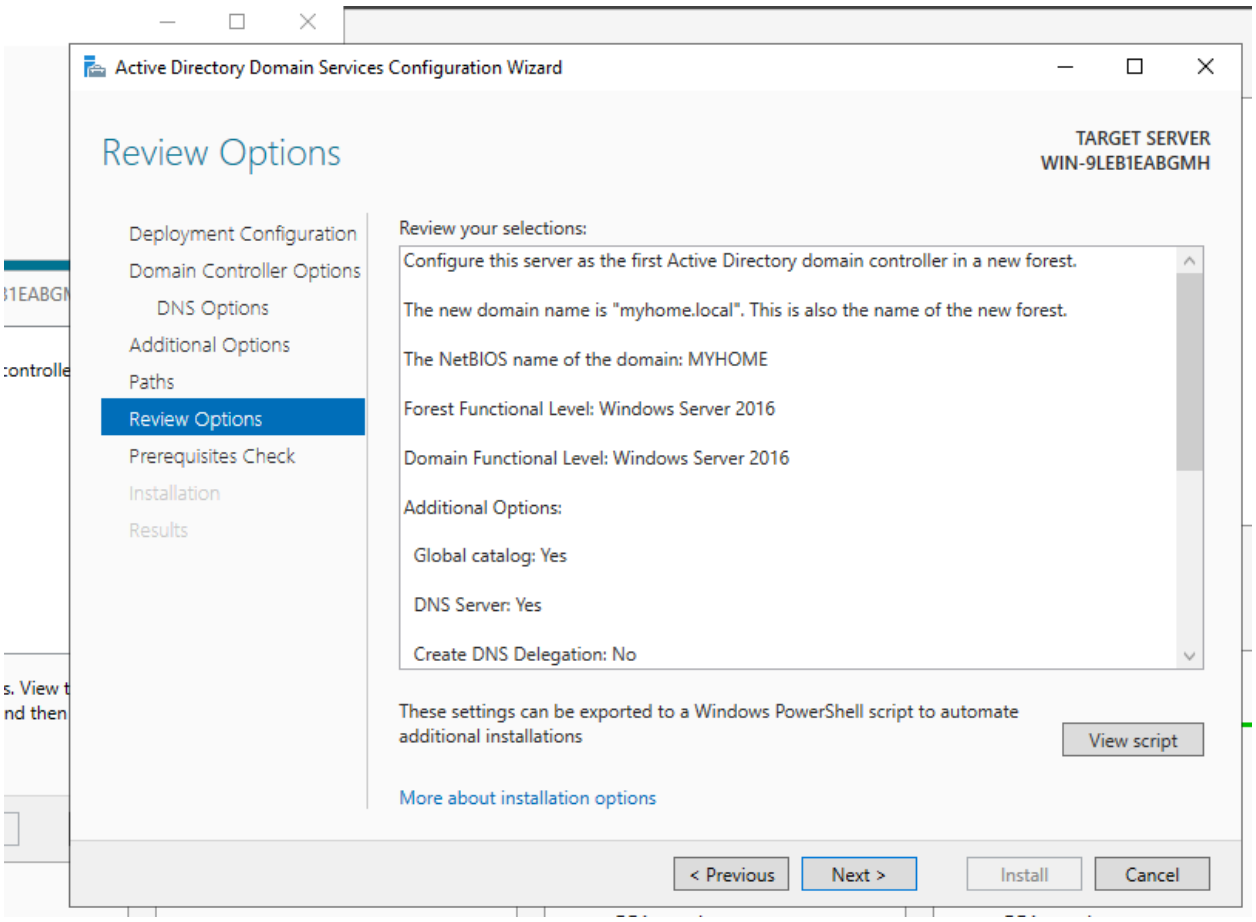
- Here is the Selected Remote Access and Web Server for future Testing.

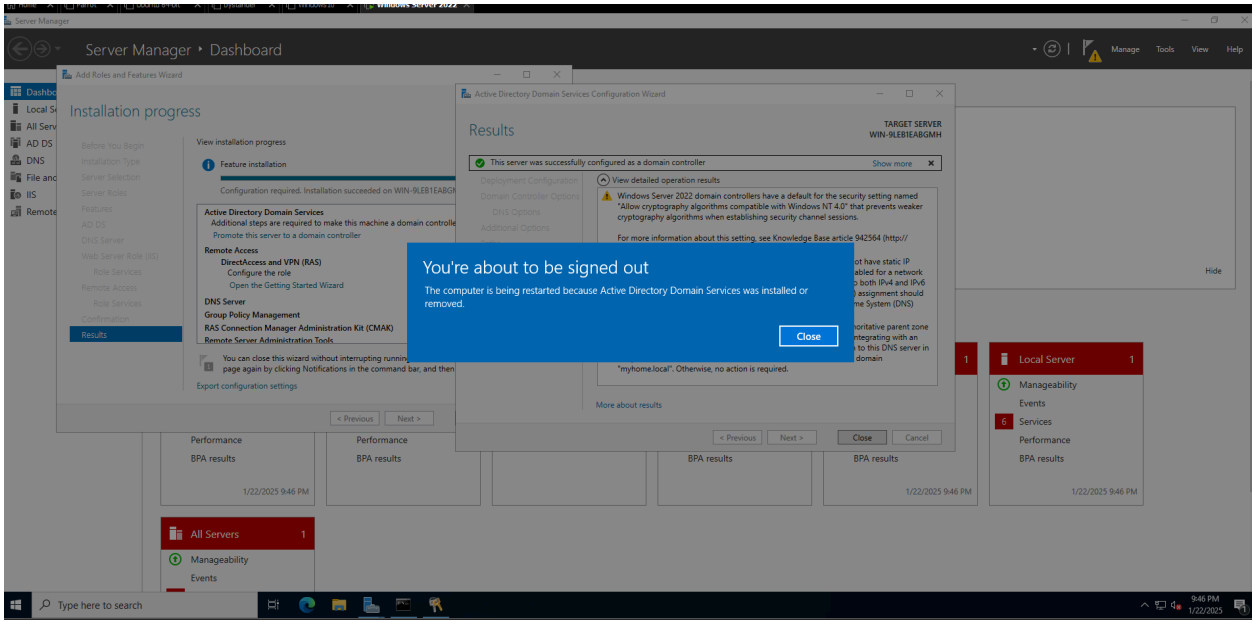


Active Directory Domain Services Installation

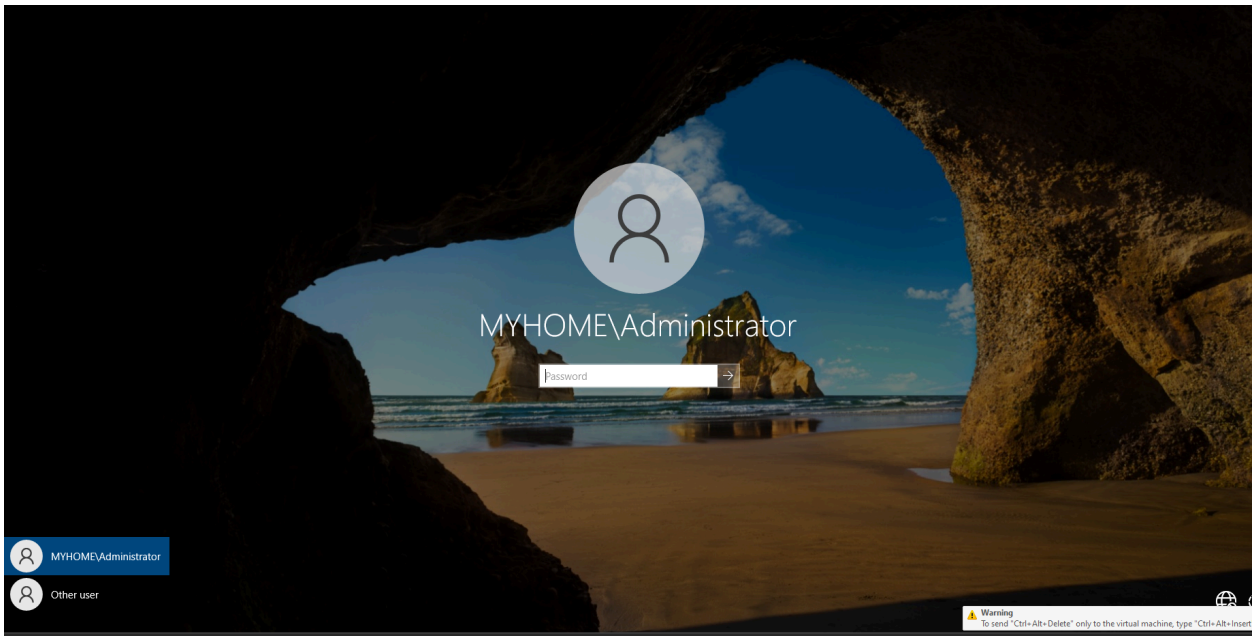


- The name of my Domain is my home. local

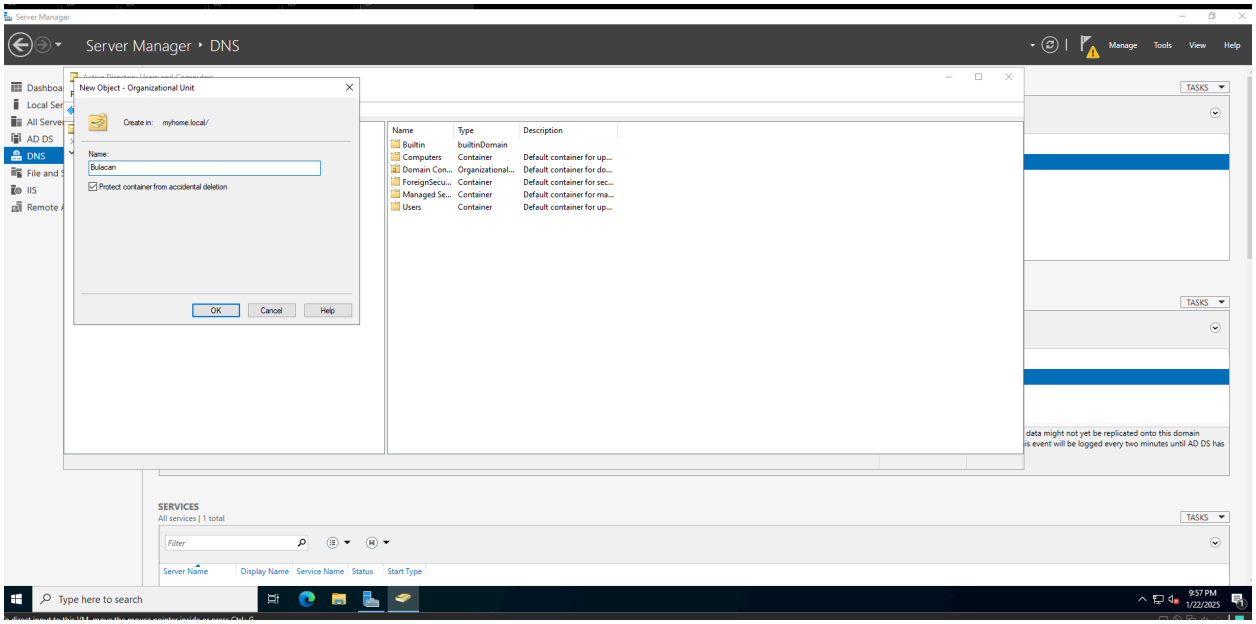


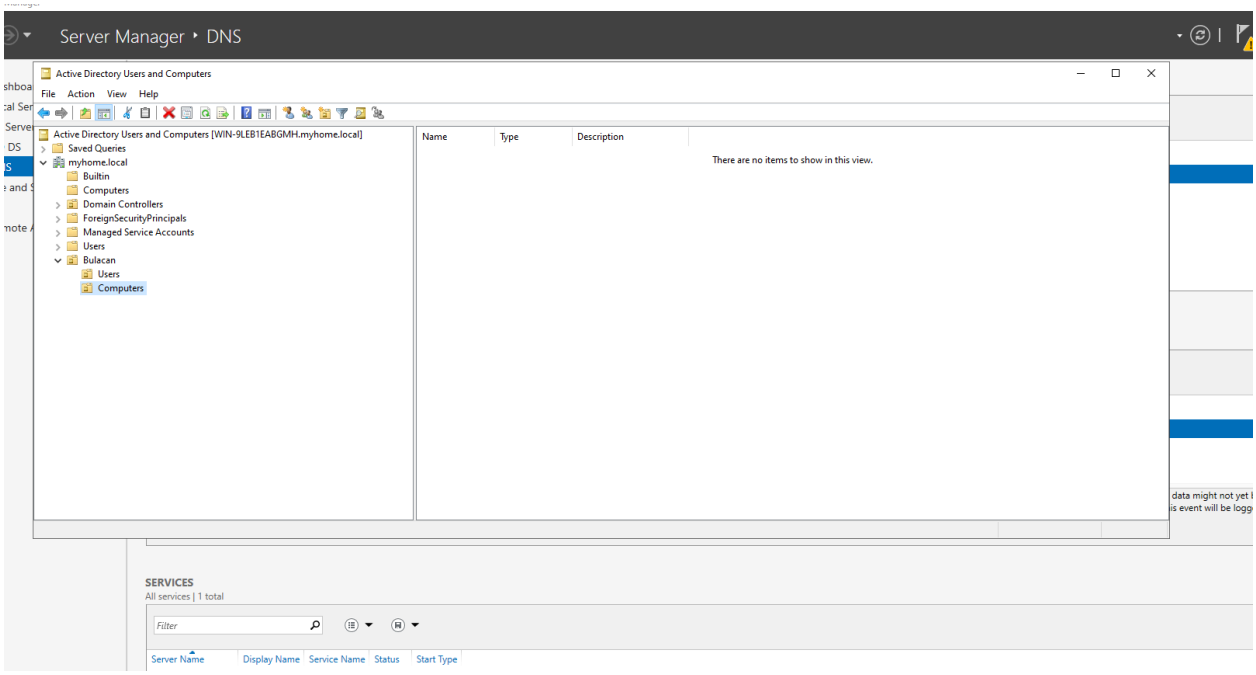


Logging in to the Active Directory Administrator Account

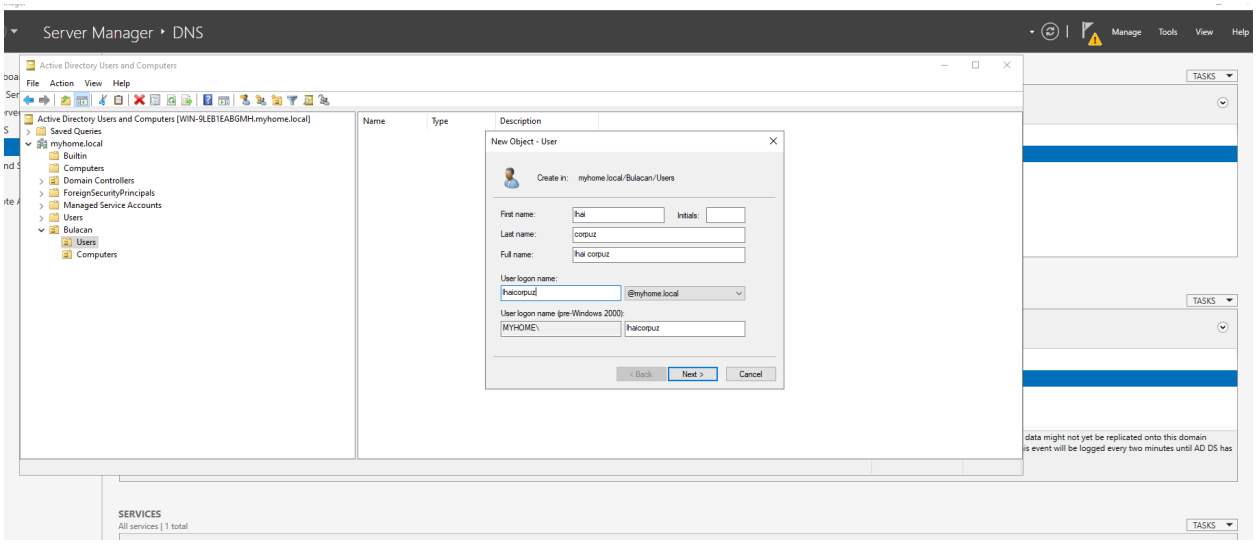


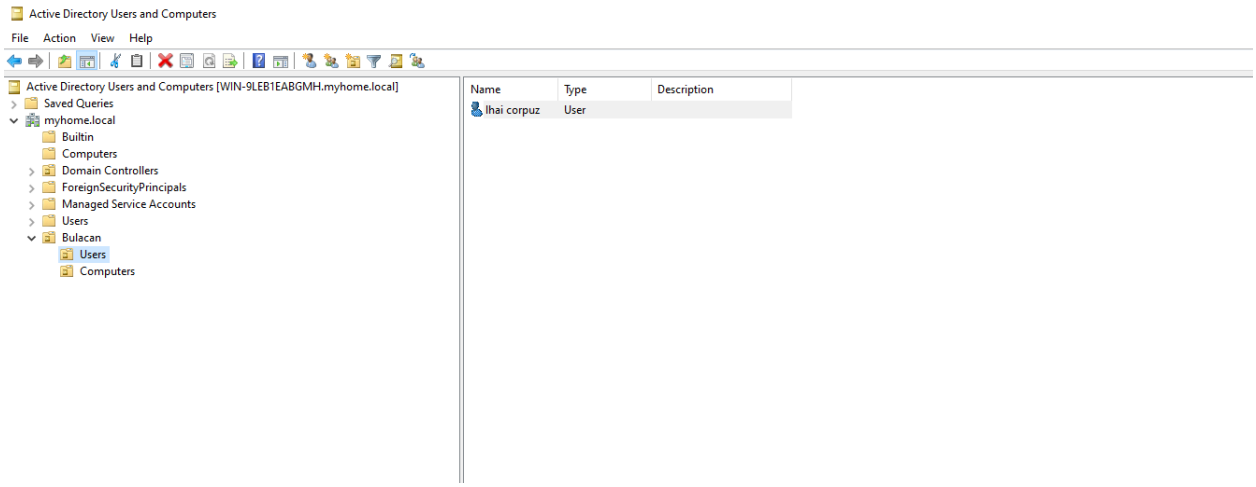
Creating Organizational Unit



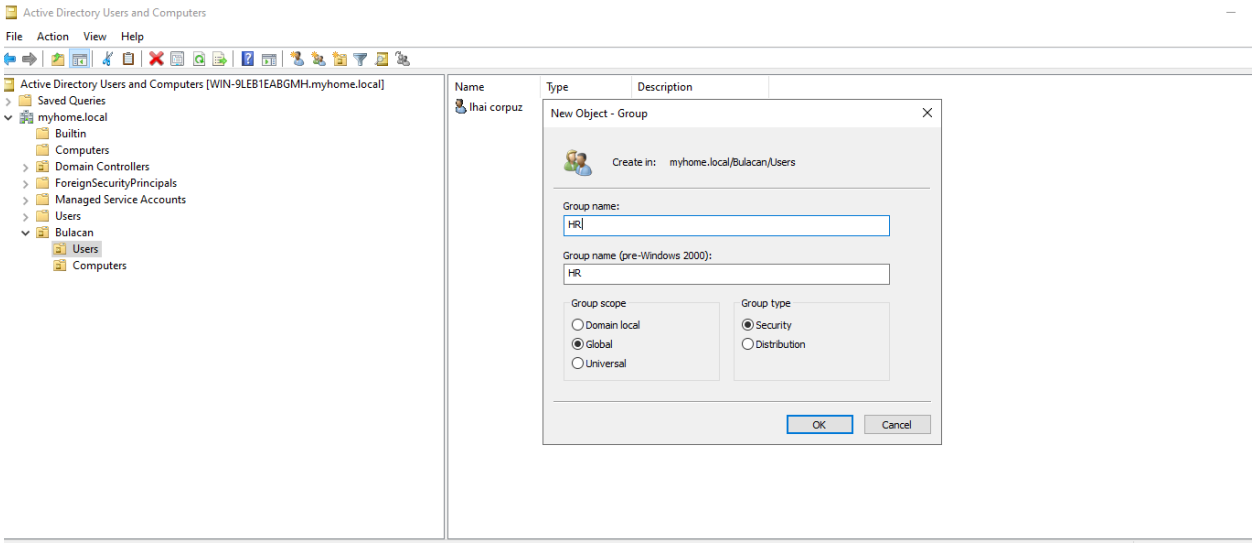


Creating a user of OUs in Bulacan

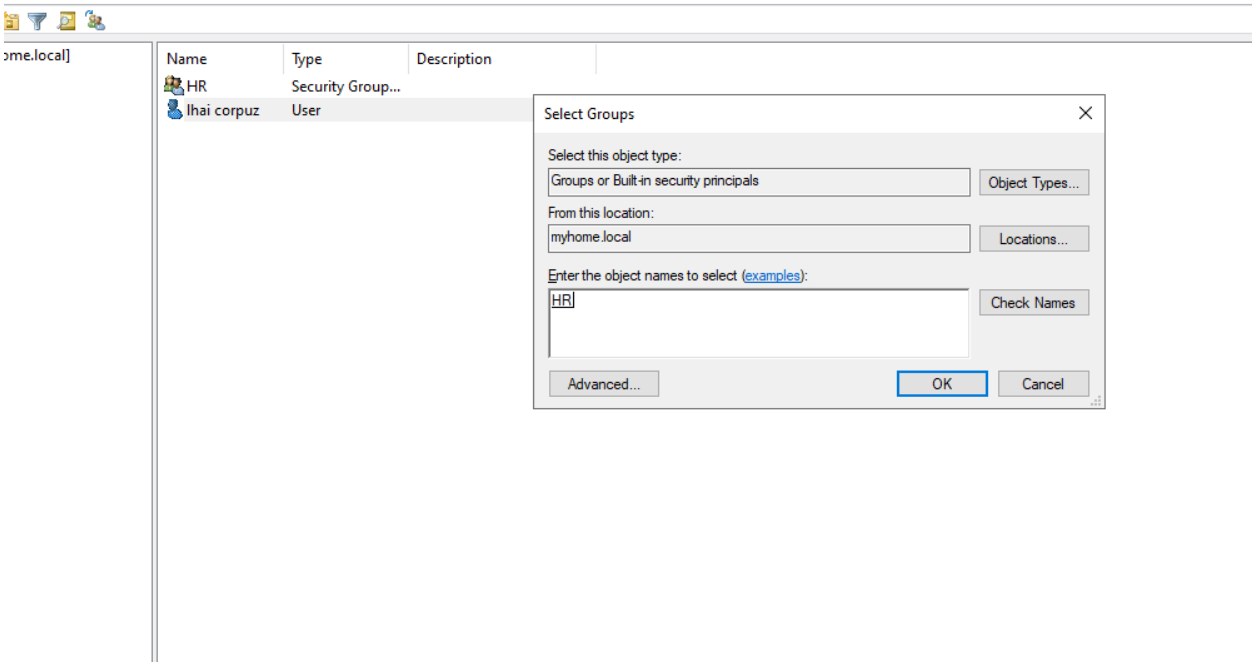




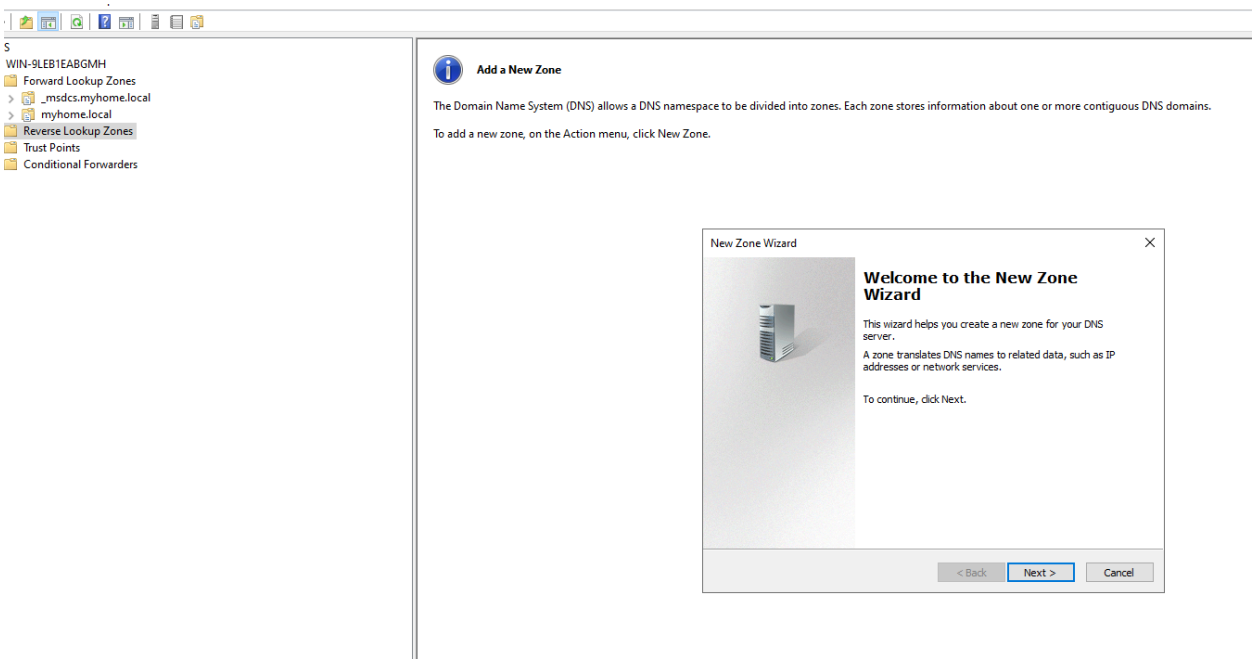
Creating a GPO for HR



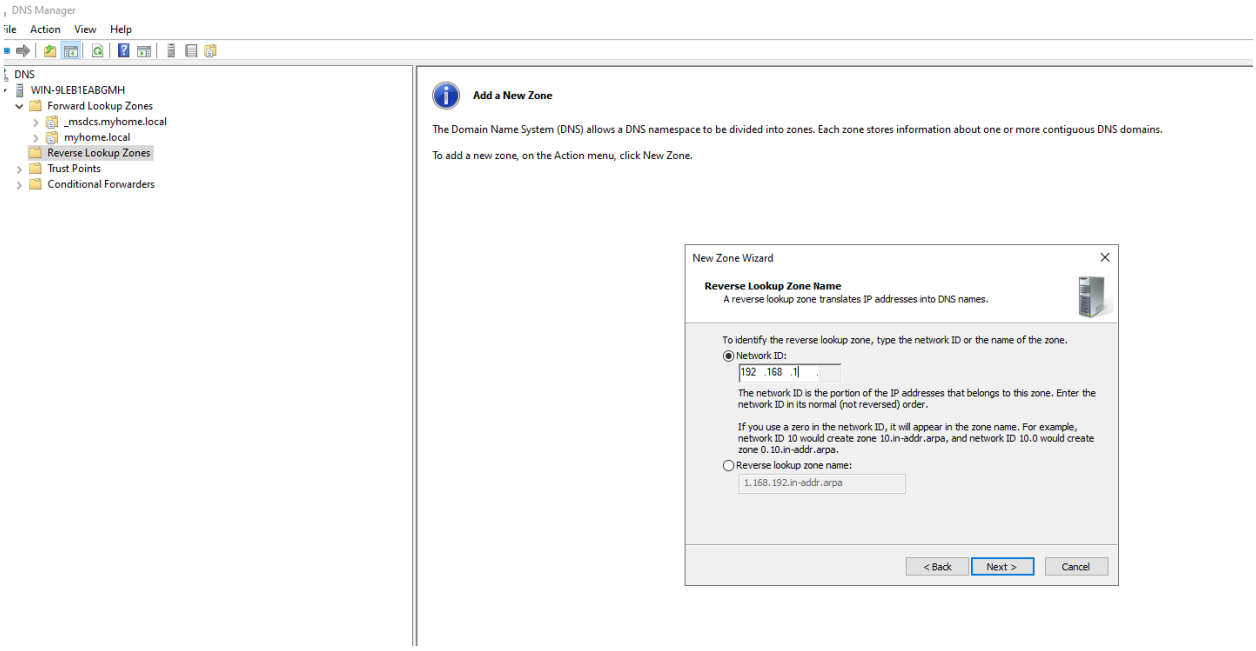
Adding User to Security Group



Setting up the DNS

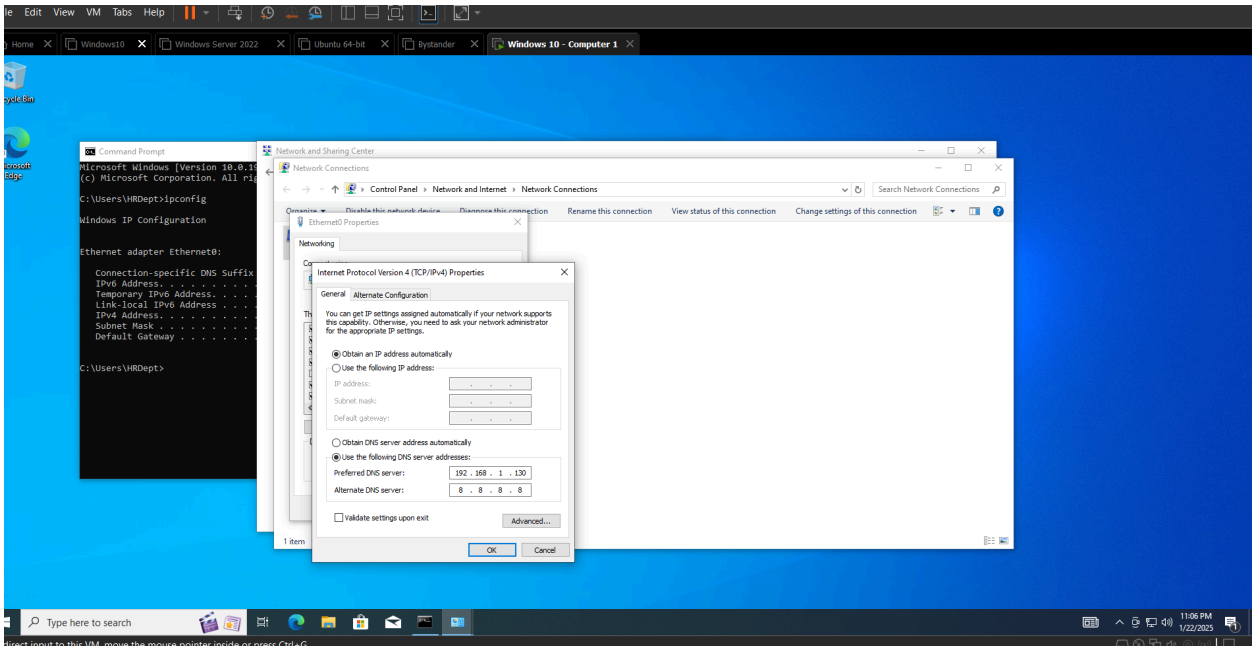


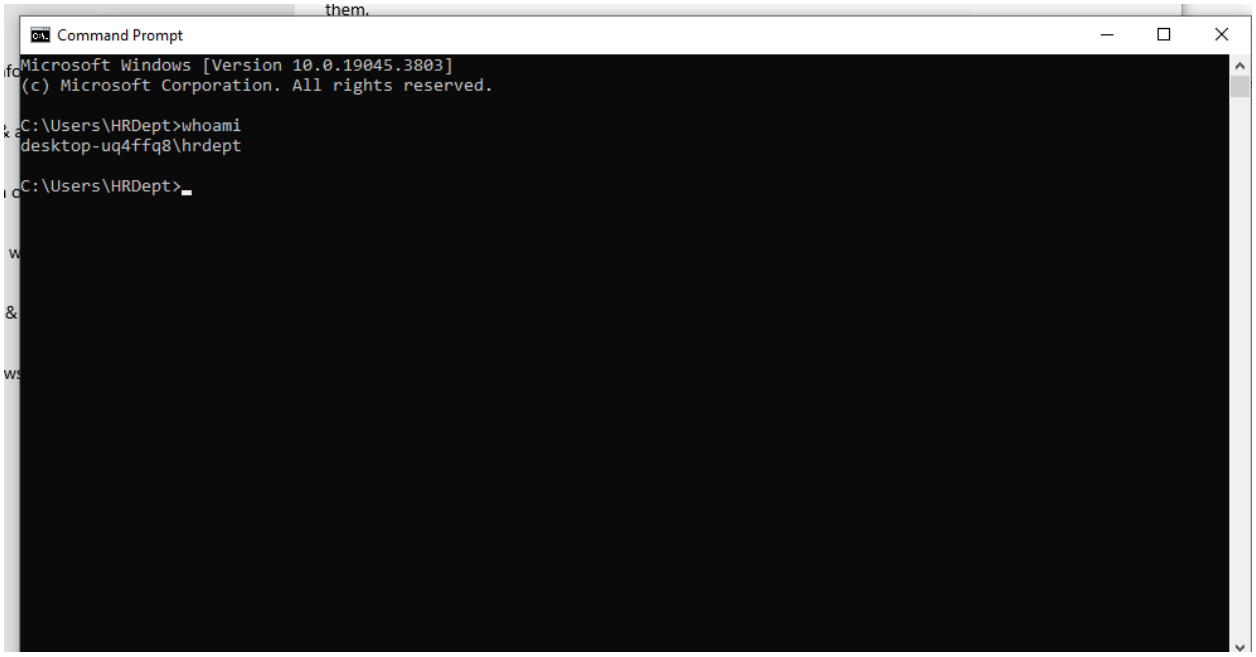
Creating the Reverse Lookup Zones



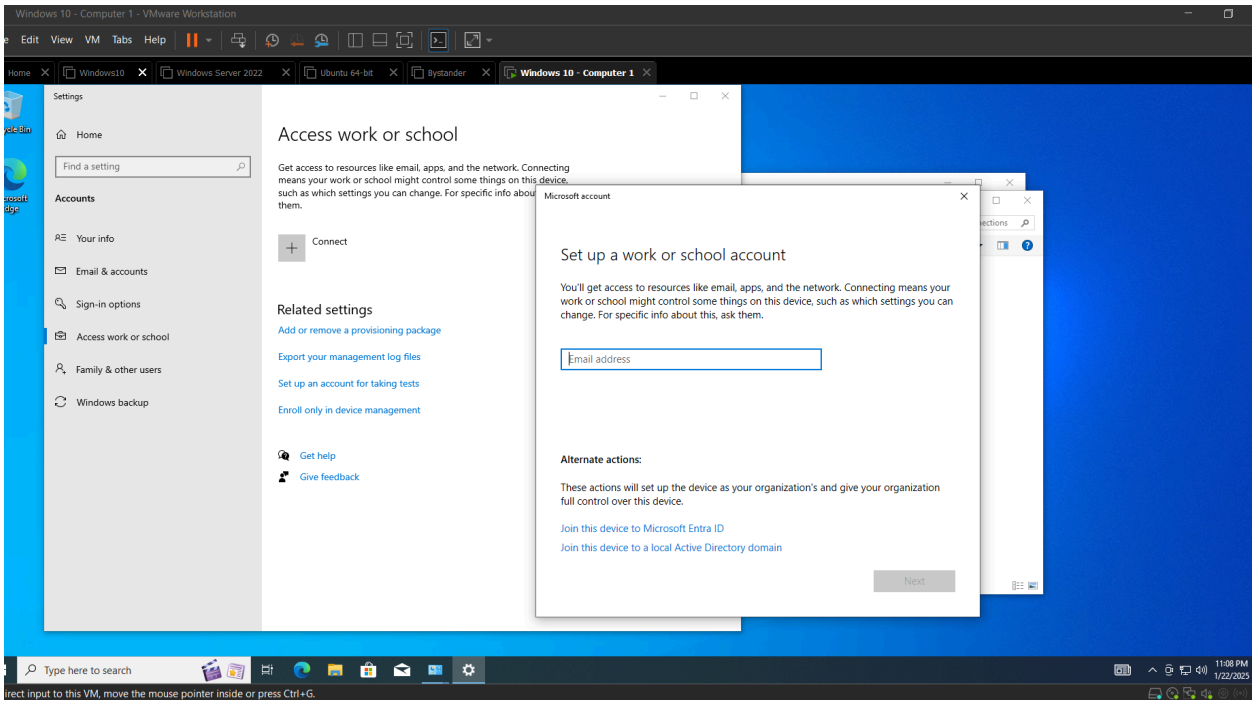
- I put 192.168.1 here because the subnet of our server is 192.168.1.

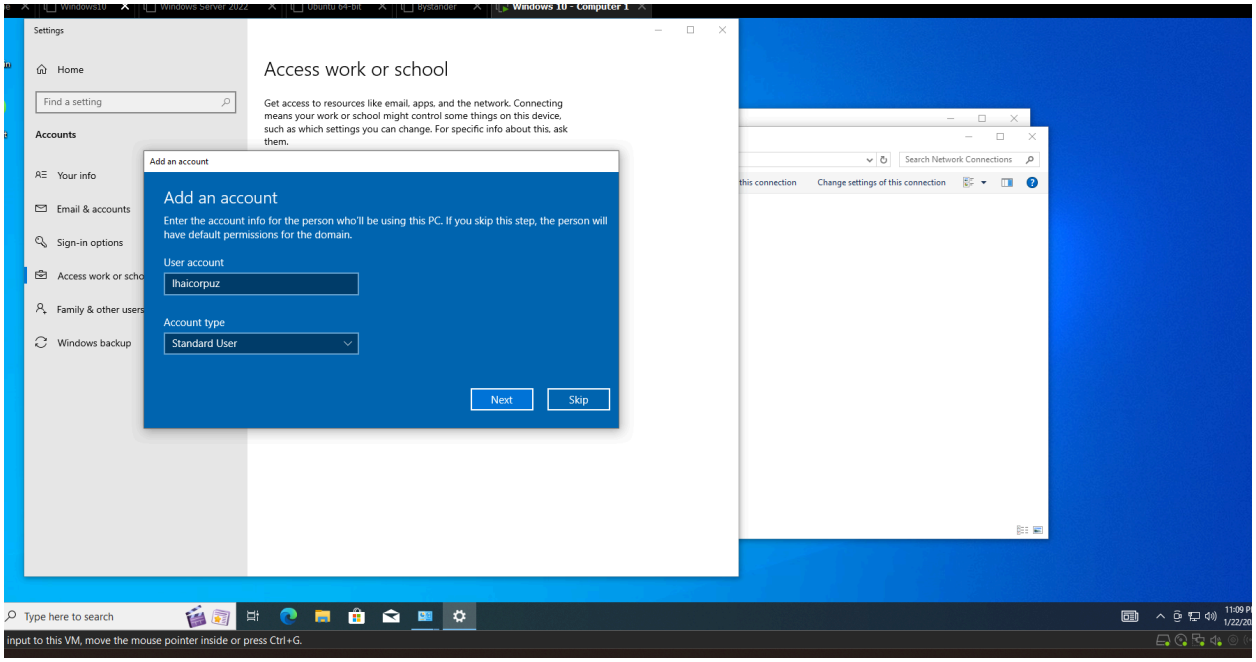
Setting up the User DNS



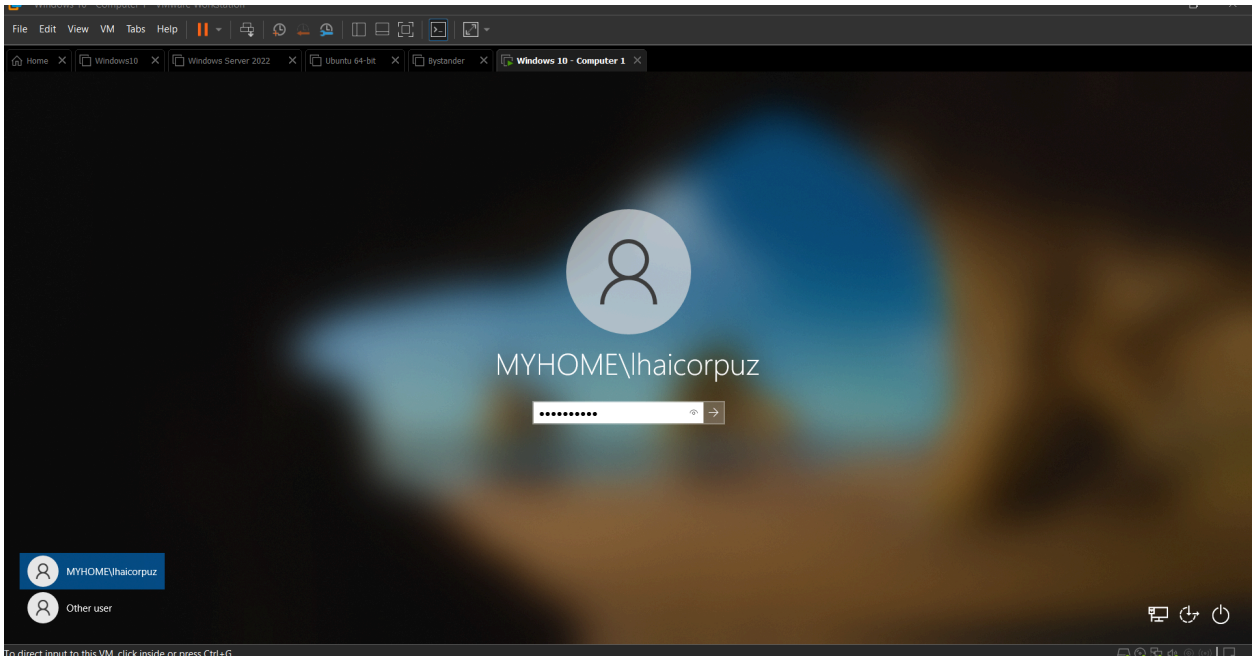


Joining the Domain

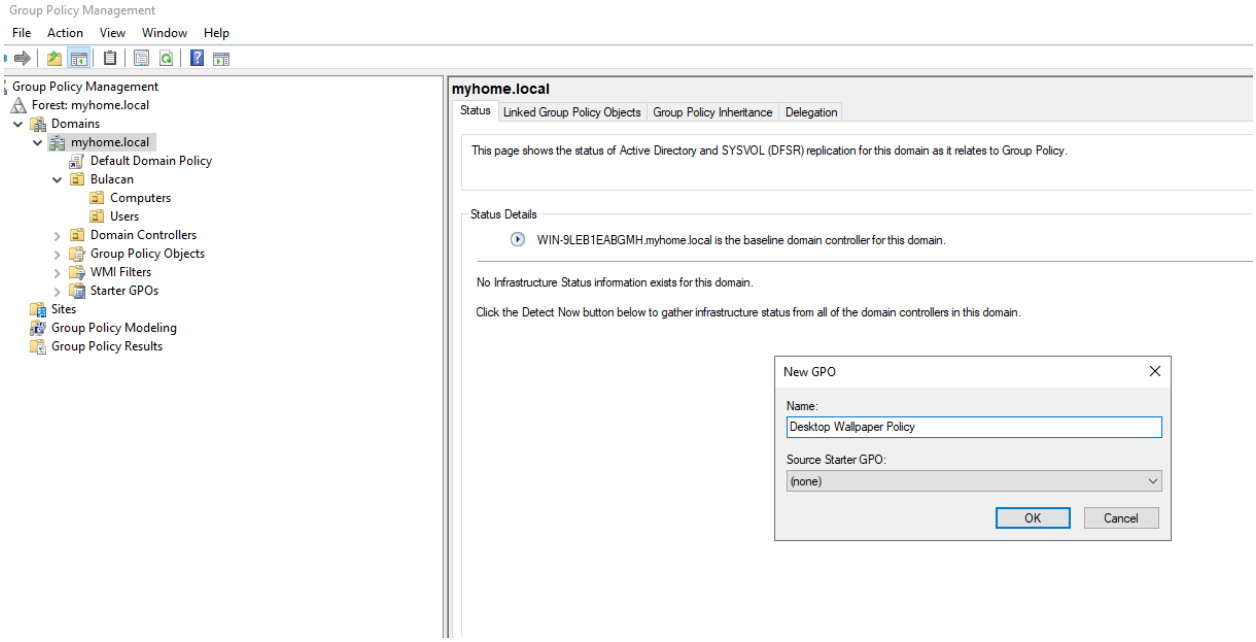


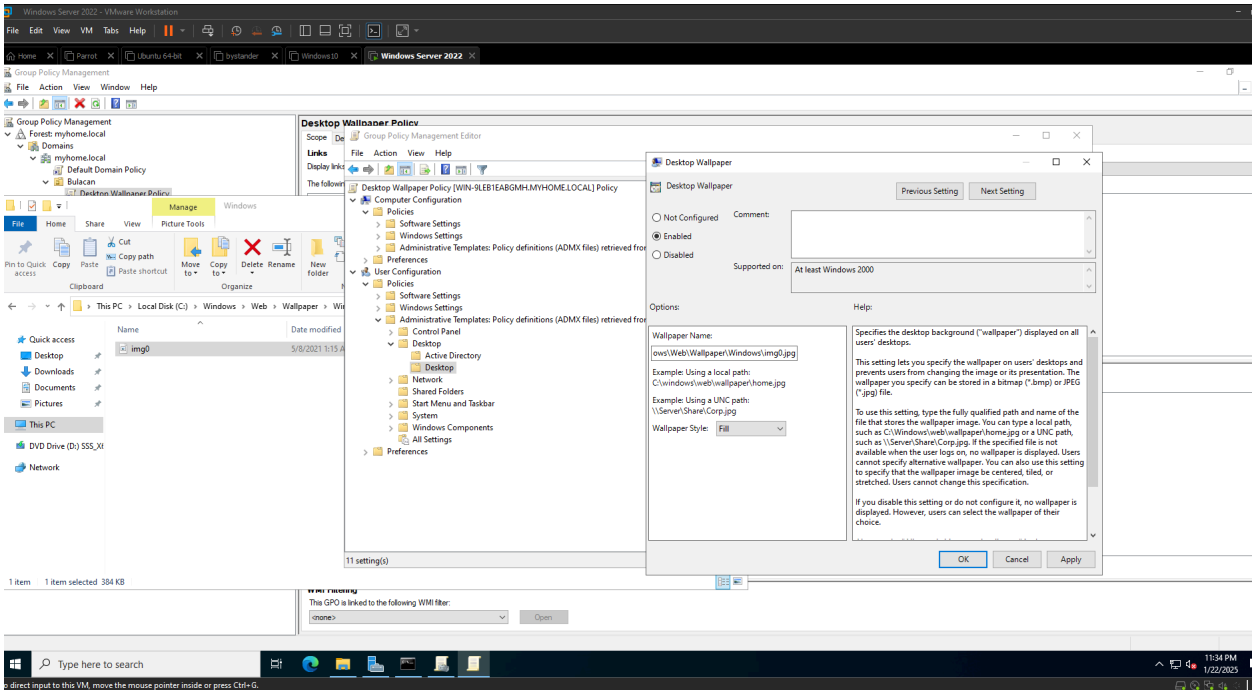


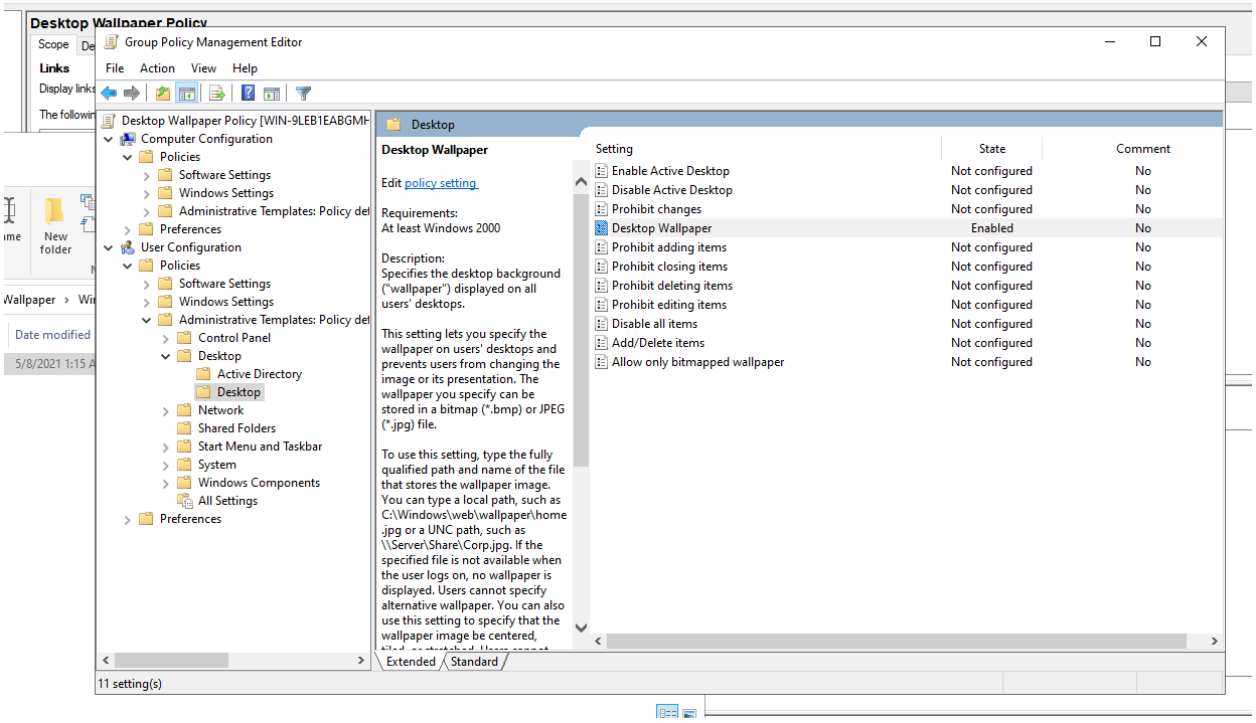
Logging in as a User



Creating GPO

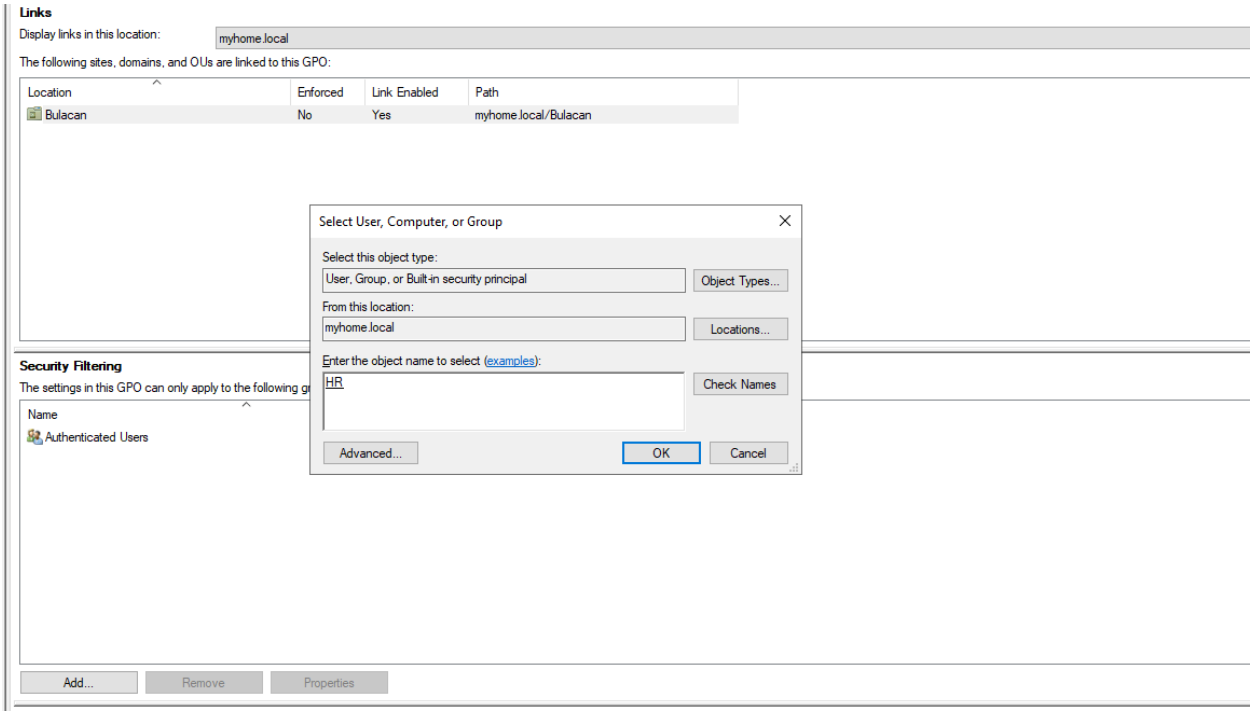




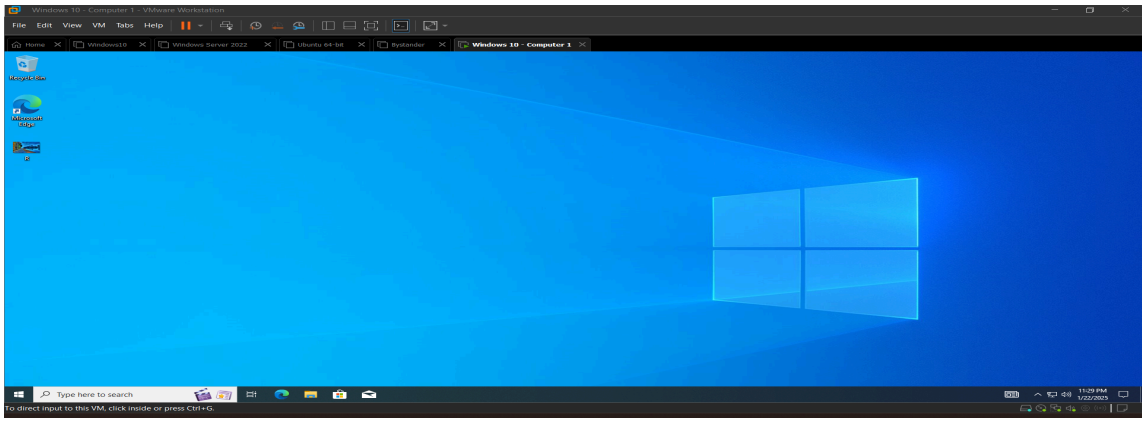


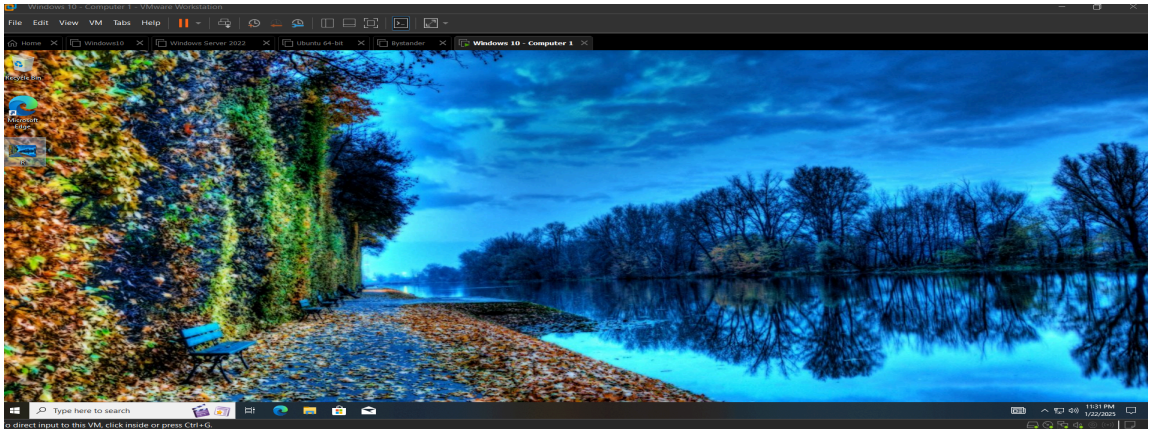
- It is now enabled

Add the HR groups to the Policy.



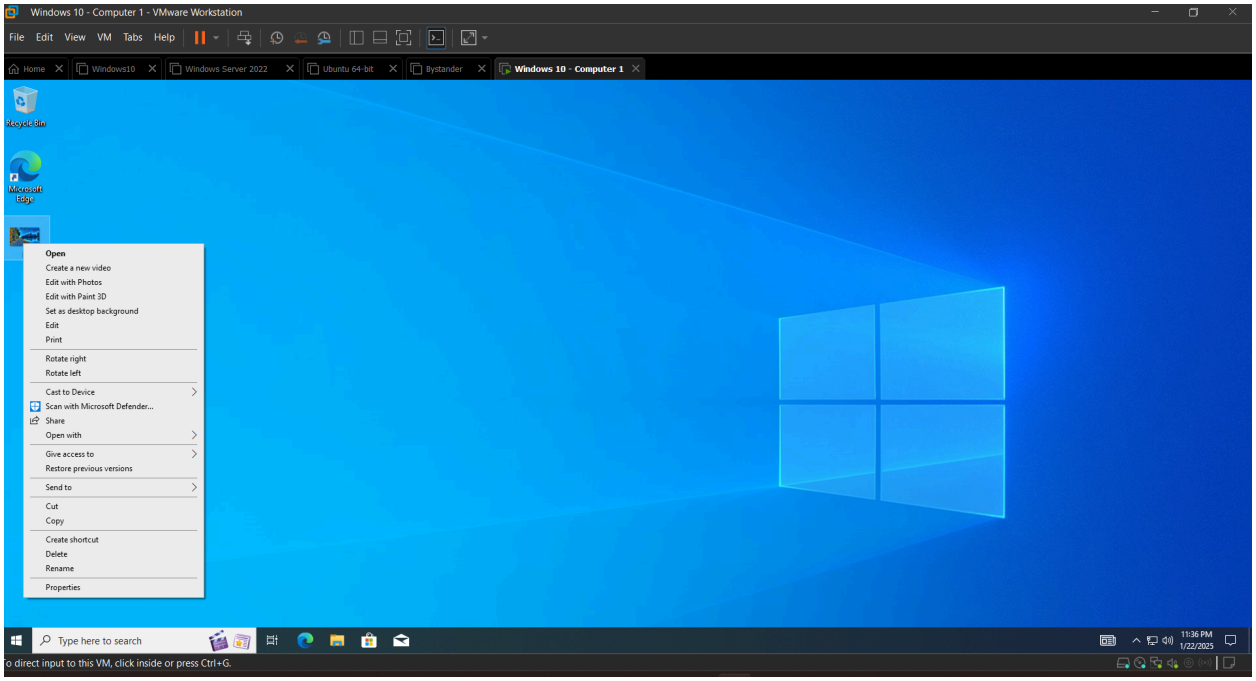
Before the Wallpaper Policy





- Before the Wallpaper Policy, I can change the Wallpaper.

After the GPO implementation



- After the Wallpaper Policy implementation even if you click the Set as desktop background it is not working now.

Reflection :

Setting up this home lab has significantly enhanced my understanding of Active Directory. It functions as a virtual control room, enabling remote management of various systems. This experience has shown the immense value of Active Directory for organizations with a large number of computers to manage, as it improves overall efficiency.

Notes:

1. Make sure when installing a Windows server, that you change the static IP first of the server.
2. For fixing DNS manager: dcdiag /fix