

Windows 11 Installation and Setup Lab

By Michael Ambeguia

Purpose: The purpose of this lab is to install and configure a Windows 11 VM so that I can have a Windows VM to work on. I don't want to mess with my Windows devices that I use on a daily basis so a VM is the best way for me to gain the experience I want without the risk. Also, I am planning on using this VM in a Windows AD environment in my home lab.

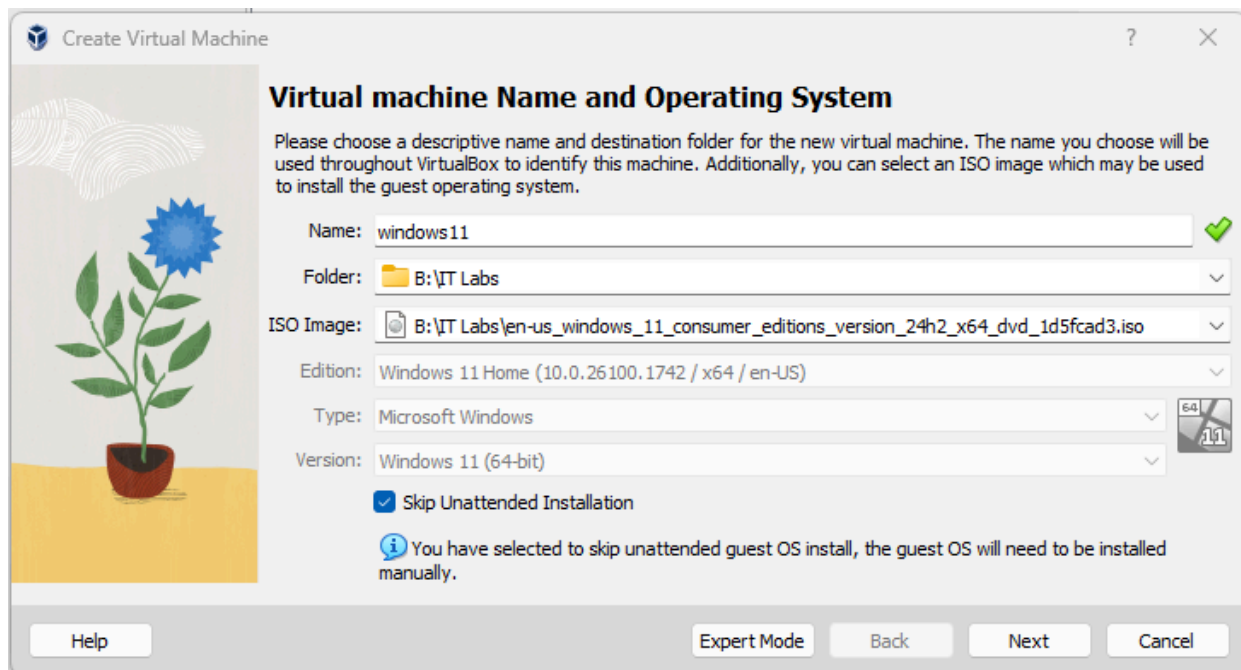
Sections:

1. Installation
2. Setup and Initial Configuration

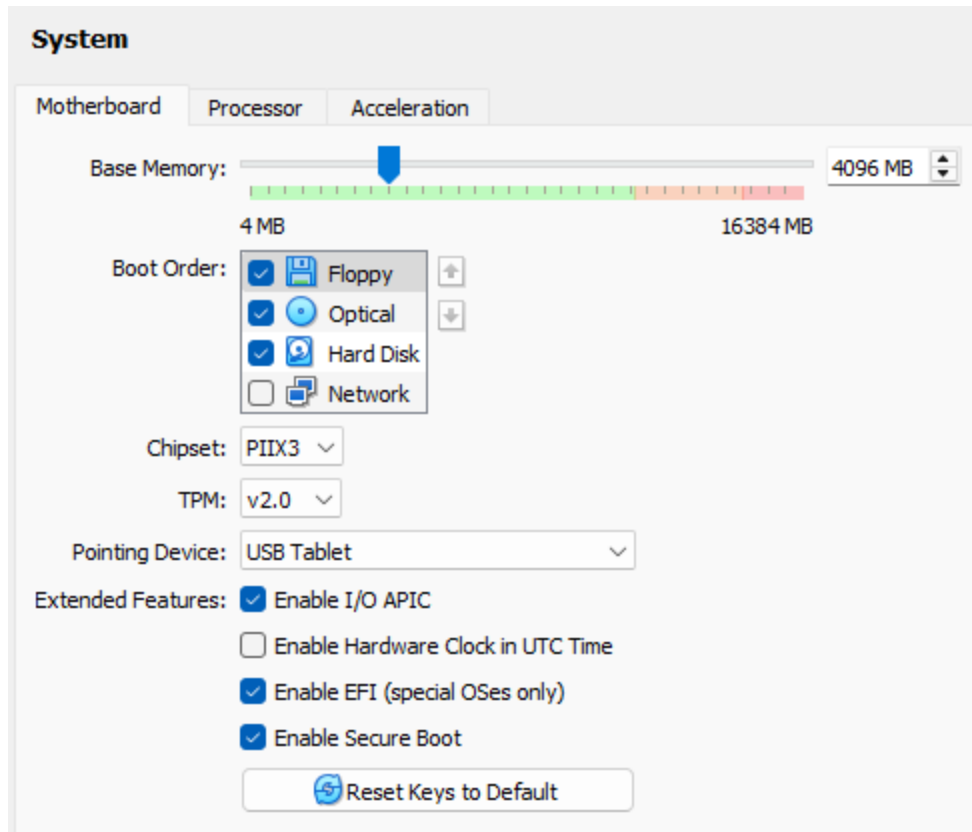
Section #1 Installation

1.1 Create a new VM.

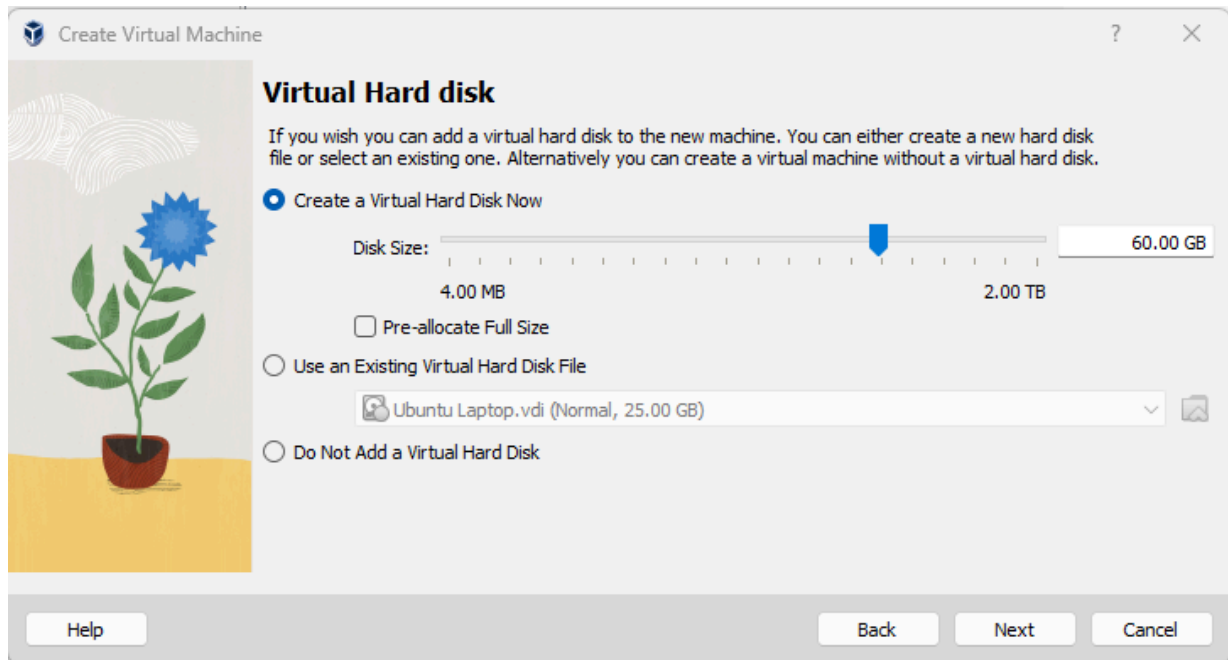
I chose the skip unattended install option since I want to customize the installation process.



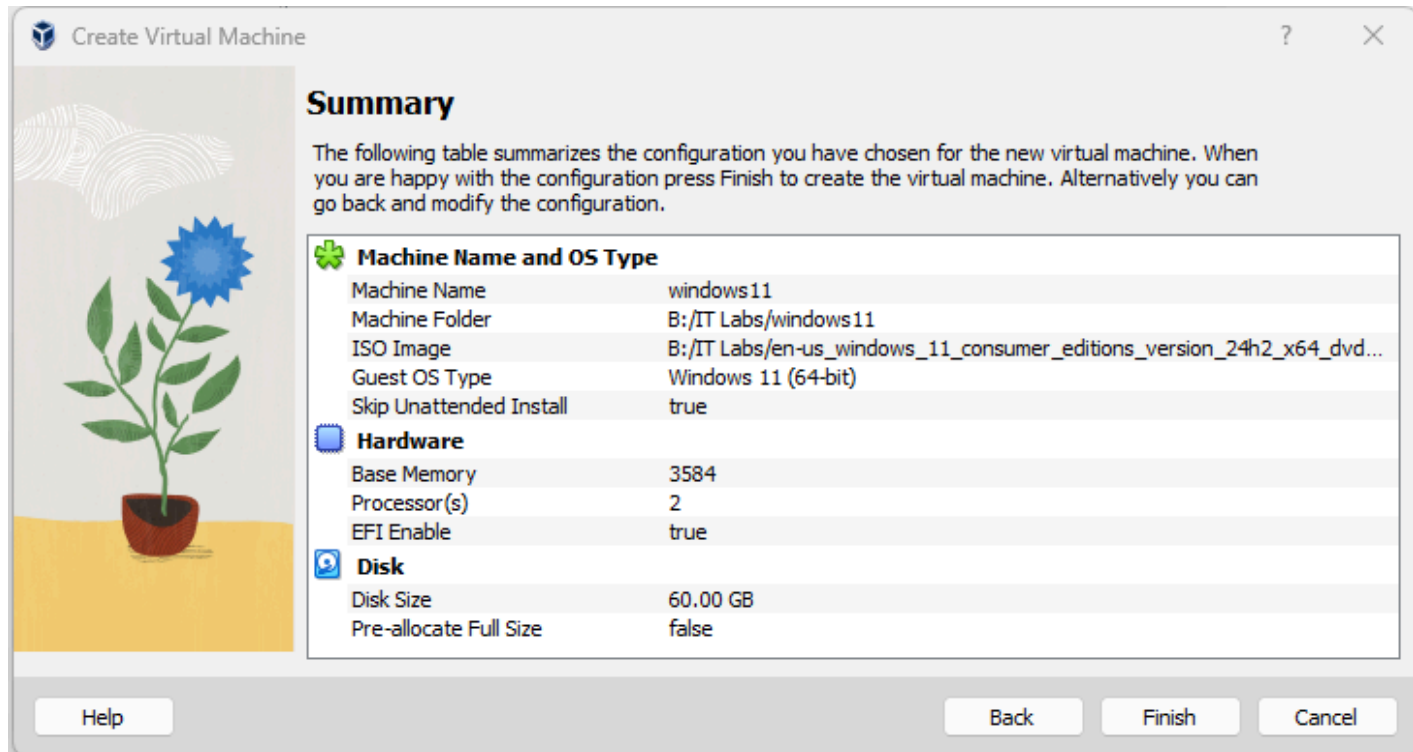
Next, I set the amount of memory for the VM. Luckily I upgraded my RAM capacity to 16 GB so I am able to allocate 4 GB of memory to the VM.



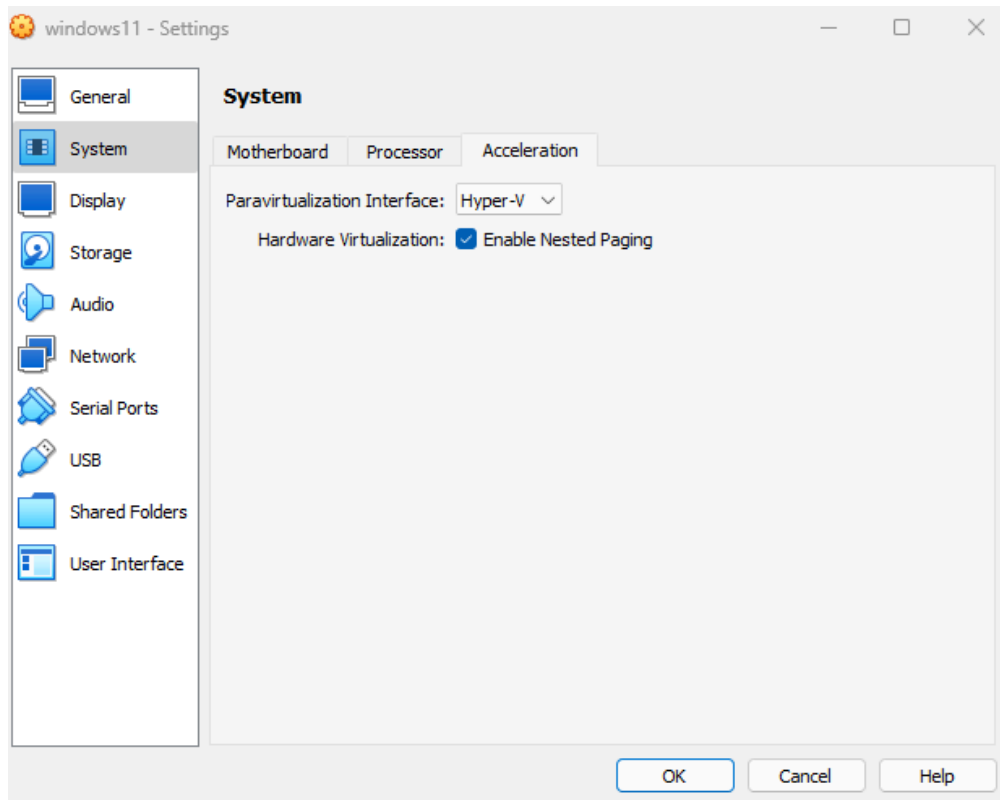
For the VHD I created a 60 GB one. The 60 GB is not allocated all at once and grows as the VM uses more data.



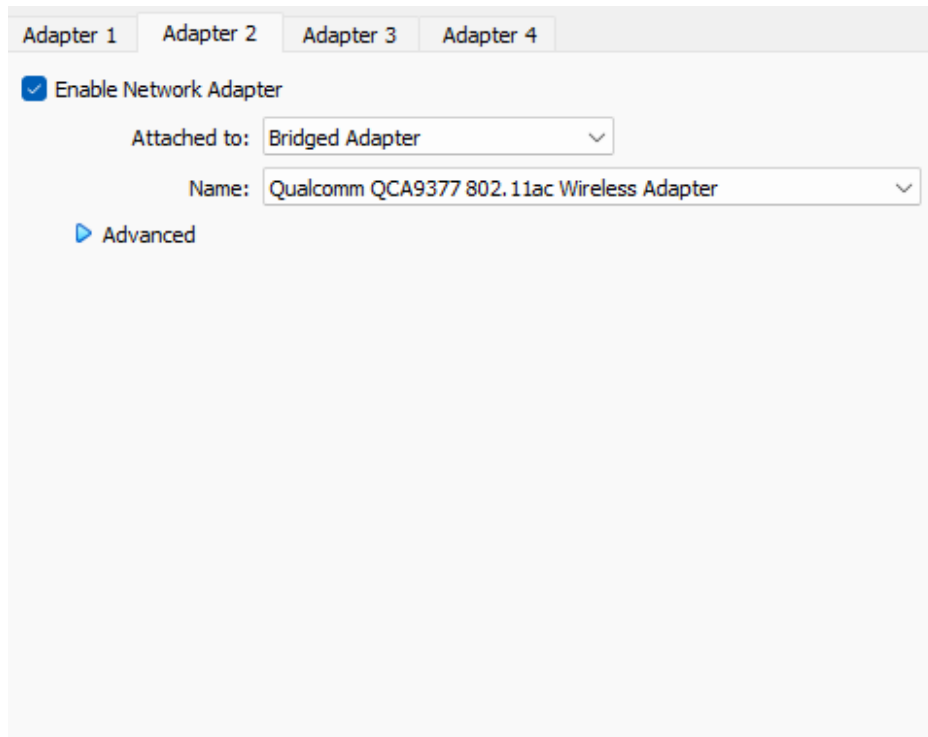
Now there is a summary of my VM and its properties.



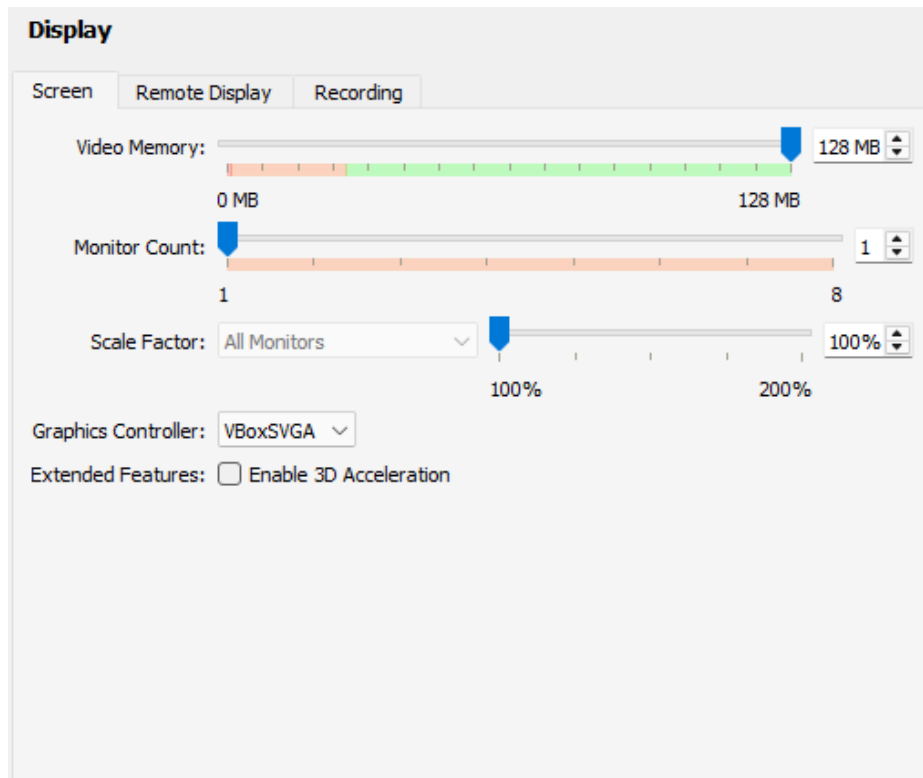
I adjusted the paravirtualization interface to Hyper-V to improve my VM's performance.



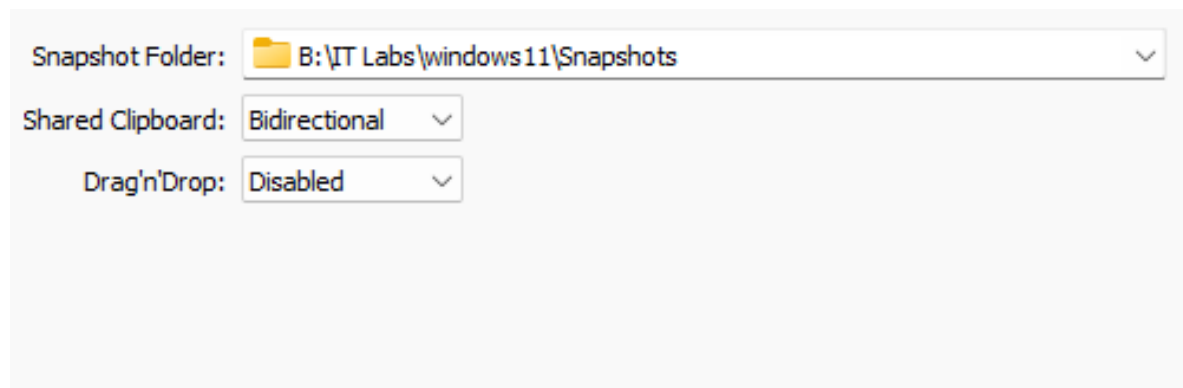
For networking I enabled a network adapter in bridged mode. Bridged mode will allow my VM to act as though it is a device on my network (not dependent on the host for networking).



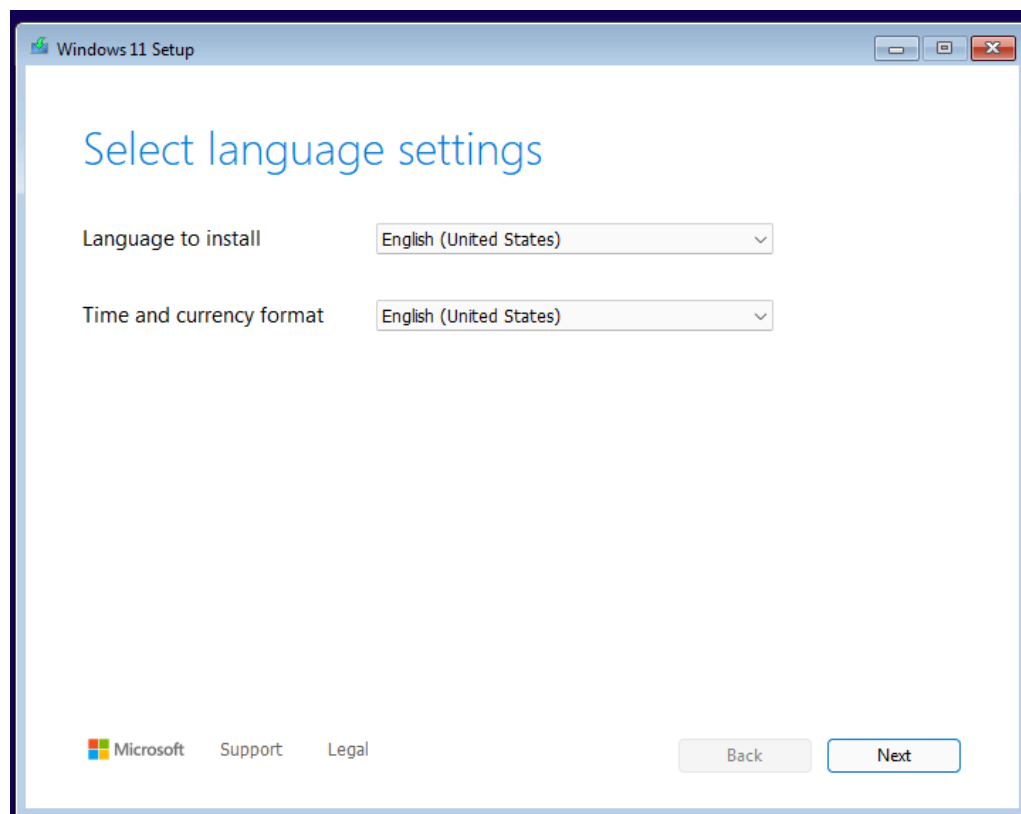
I adjusted my video memory to the max settings to reduce graphics lagging.

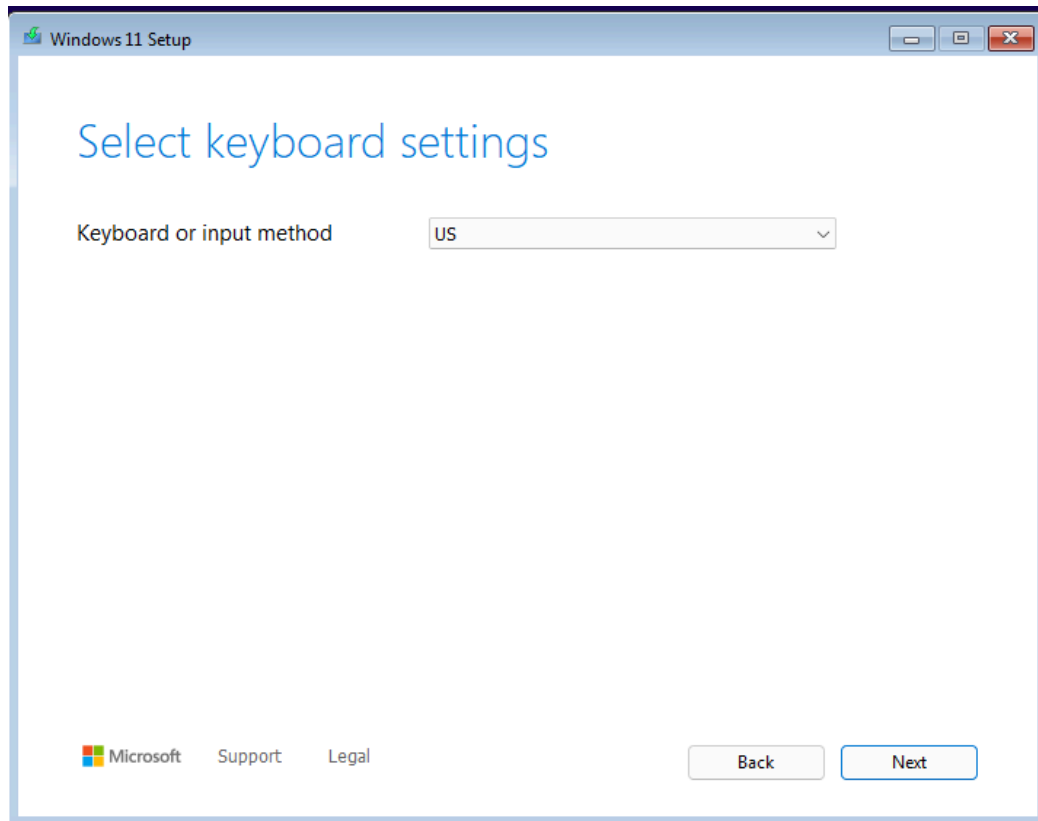


I only wanted a bidirectional shared clipboard.

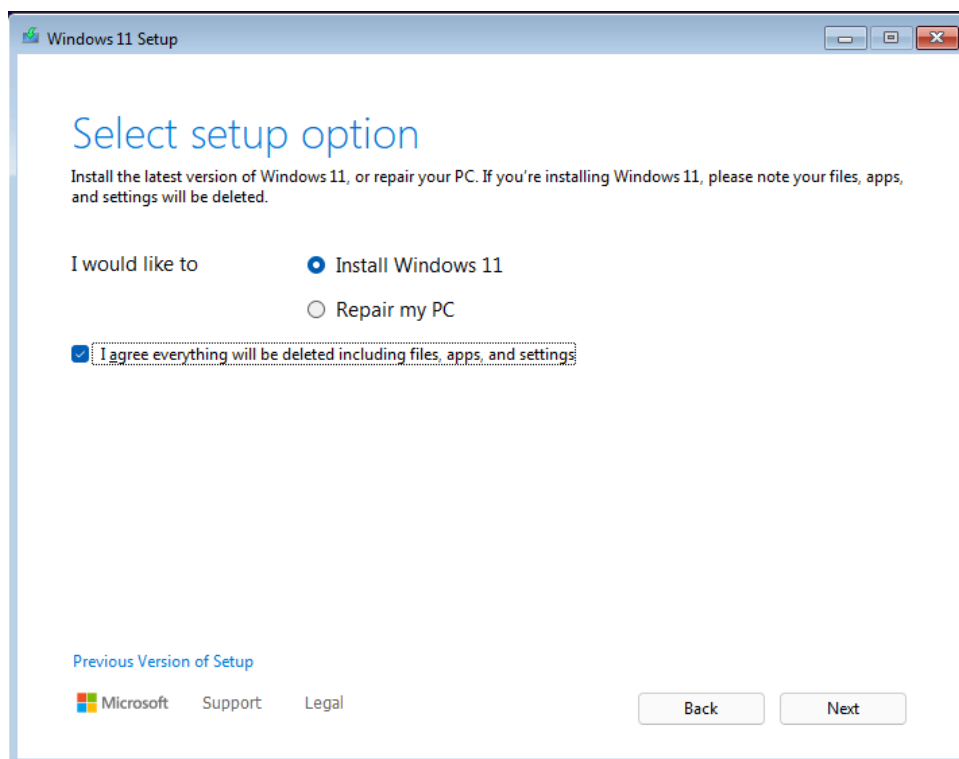


1.2 Install Windows 11 VM:

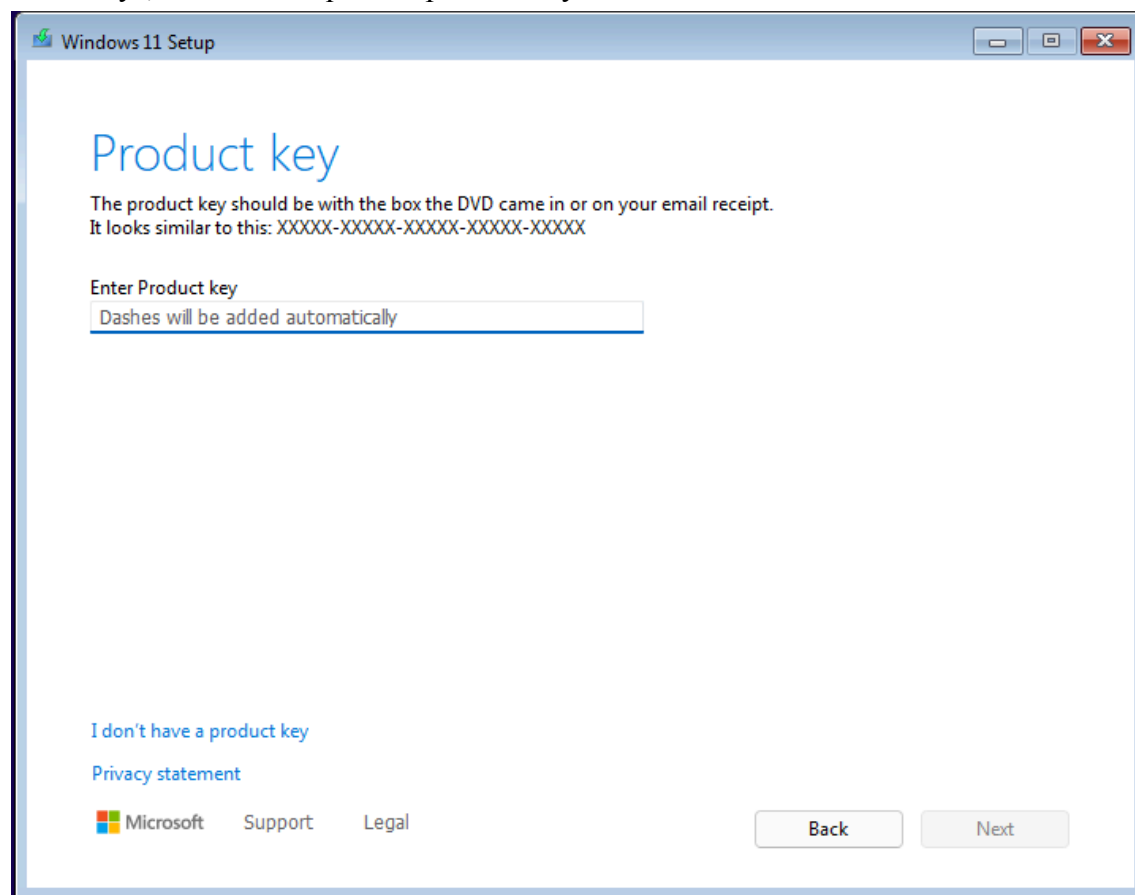




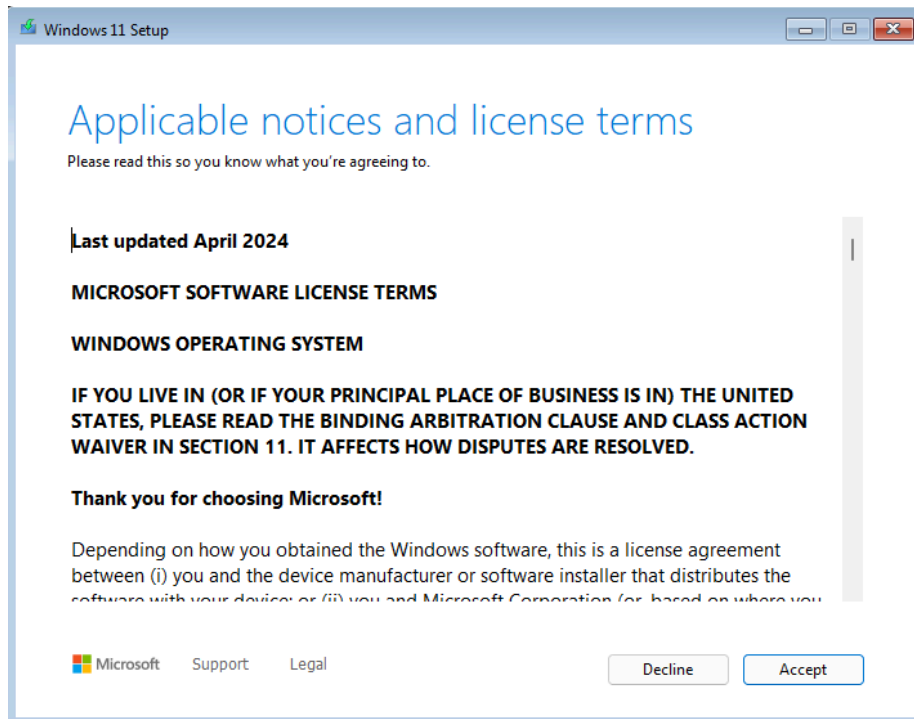
Choose Install Windows 11 since this is a fresh install.



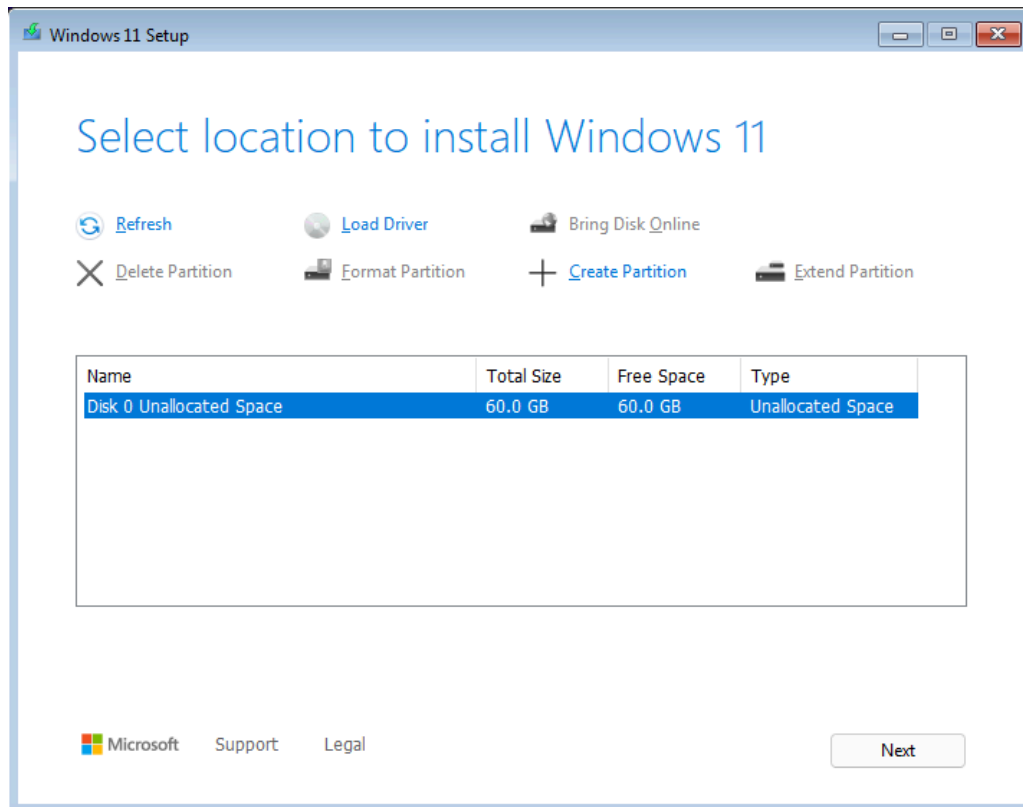
As always, Windows requires a product key to activate the OS.

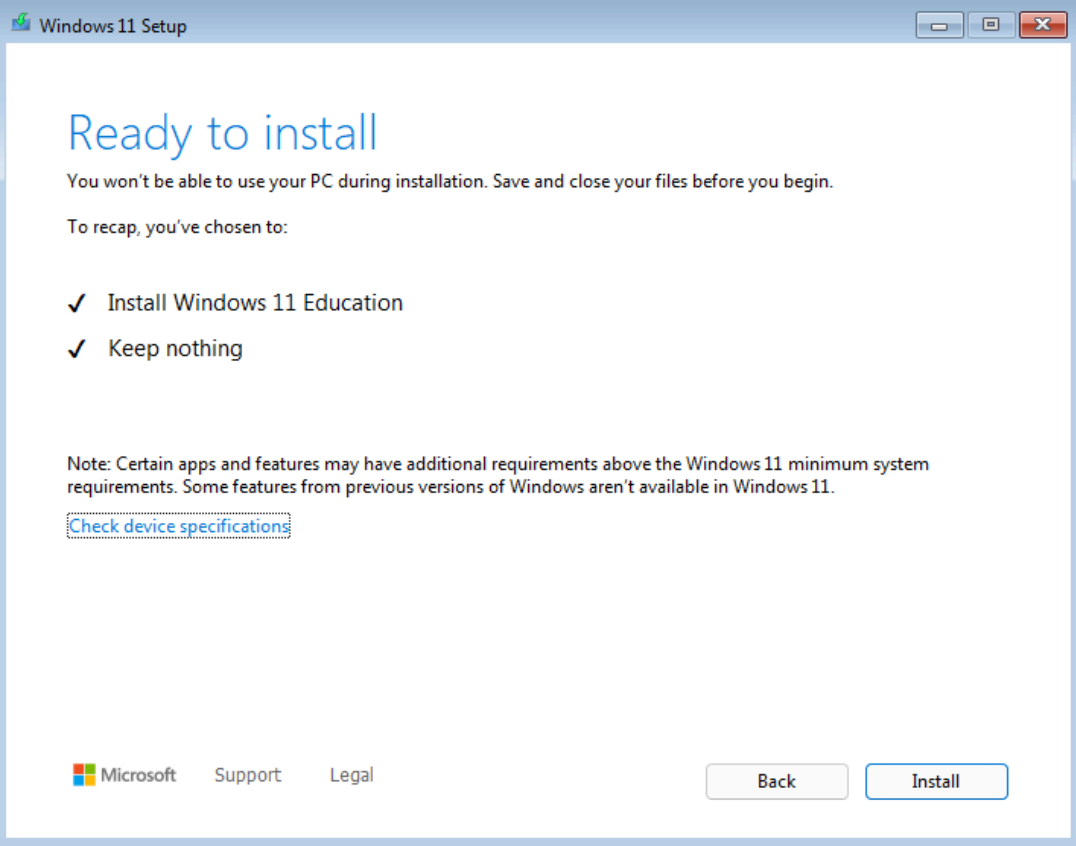


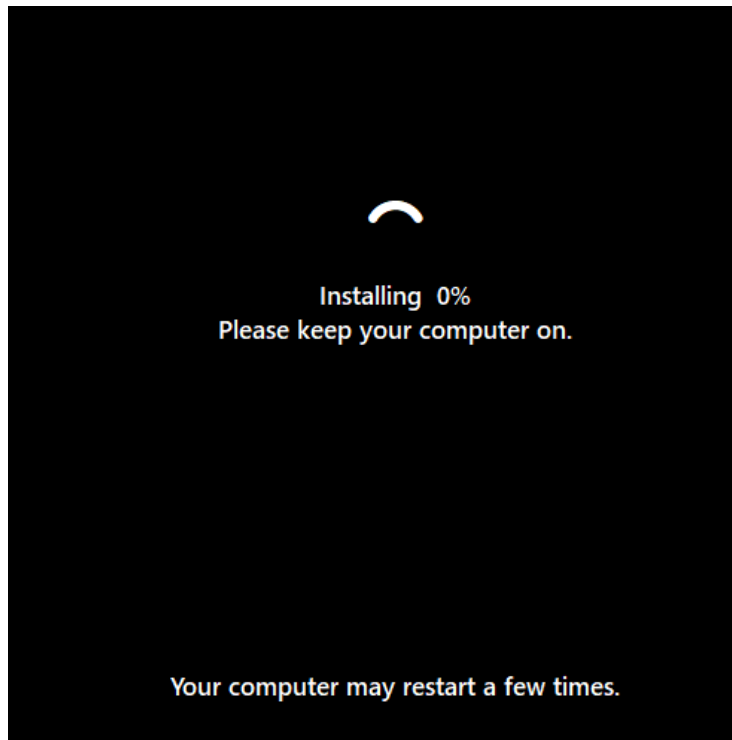
Accept the terms and agreements.



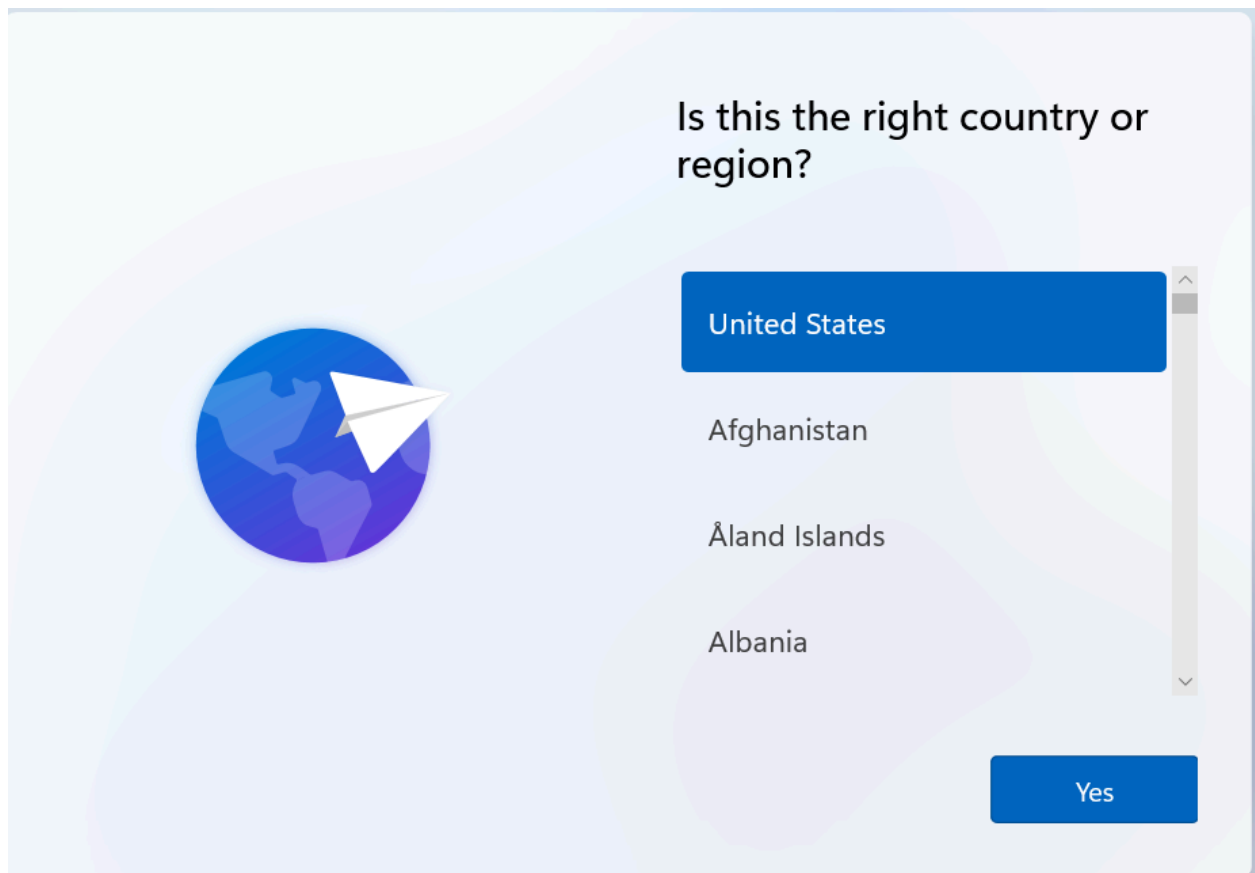
Choose the disk where you will install Windows. I will just install it on the VHD with no partitions.



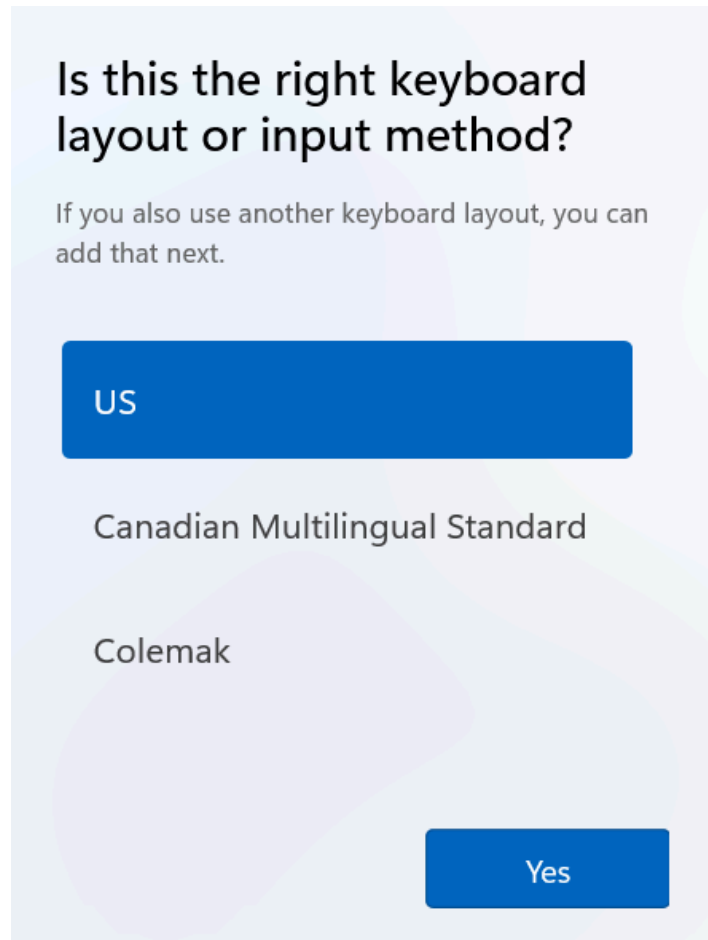




Installation is done. Now I have to choose my location.



Choose the keyboard layout

A screenshot of a Windows setup window titled "Is this the right keyboard layout or input method?". Below the title is a subtitle: "If you also use another keyboard layout, you can add that next." There are three radio button options: "US" (which is selected and highlighted with a blue background), "Canadian Multilingual Standard", and "Colemak". At the bottom right is a blue "Yes" button.

Is this the right keyboard layout or input method?

If you also use another keyboard layout, you can add that next.

☒ US

☐ Canadian Multilingual Standard

☐ Colemak

Yes

I wanted to create a local account but Windows is a stubborn OS and would not let me. To get around this I had to disable my network adapter to force it to allow me to create a local account.

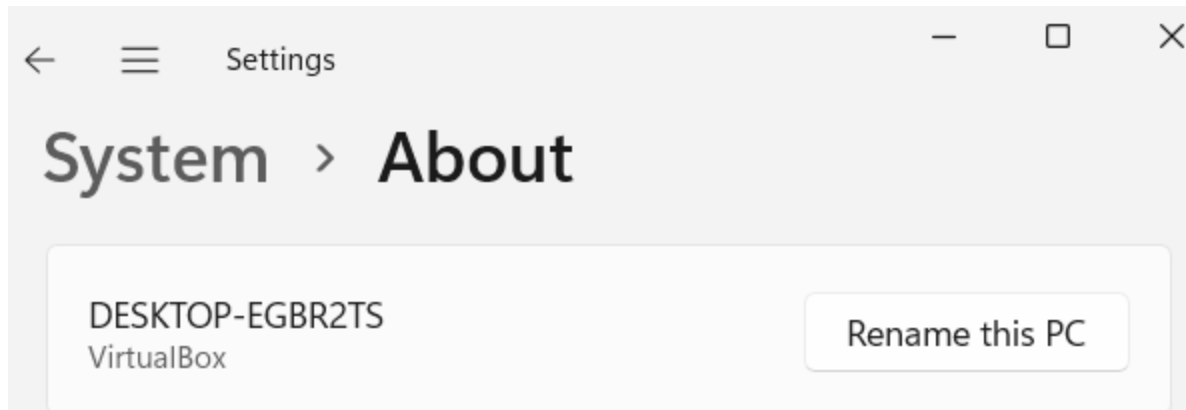


I enabled my network adapter once again and signed in again.

Section #2 Setup and Initial Configuration

2.1 Change hostname:

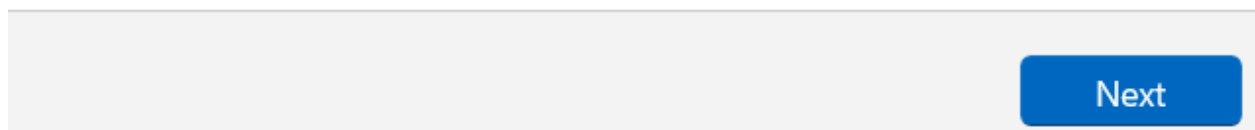
To change a Windows system hostname go to settings/about/rename pc.



Rename your PC

You can use a combination of letters, hyphens, and numbers.

Current PC name: DESKTOP-EGBR2TS



Restart the PC then the new hostname should be applied.

System



LAB-PC

VirtualBox

[Rename](#)



Windows Update

Check for updates

2.2 Configure proper network settings:

IP assignment:	Edit
Automatic (DHCP)	
DNS server assignment:	Edit
Automatic (DHCP)	
Aggregated link speed (Receive/Transmit):	Copy
1000/1000 (Mbps)	
Link-local IPv6 address:	
fe80::88fe:f26c:a030:9512%3	
IPv4 address:	
192.168.1.26	
IPv4 default gateway:	
192.168.1.1	
IPv4 DNS servers:	
192.168.1.1 (Unencrypted)	
Manufacturer:	

I need to change the DNS server to be the AD Domain Controller. I also need to change the network settings to allow traffic from my device to reach the controller and vice-versa.

Network & internet > Ethernet



Network
Connected



Network profile type



Public network (Recommended)

Your device is not discoverable on the network. Use this in most cases—when connected to a network at home, work, or in a public place.



Private network

Your device is discoverable on the network. Select this if you need file sharing or use apps that communicate over this network. You should know and trust the people and devices on the network.

[Configure firewall and security settings](#)

This device needs to be on a private network so that it can reach the AD DC on the same network. Now I will change the DNS server manually, configuring the AD DC to be the DNS server for my client.

DNS server assignment:

Manual

Edit

IPv4 DNS servers:

192.168.1.29 (Unencrypted)

2.3 Install any updates:

The last thing I need to do is install the updates for the system.

Security Intelligence Update for Microsoft Defender
Antivirus - KB2267602 (Version 1.421.1532.0) - Current
Channel (Broad)

[Retry](#)

We could not complete the install because an update service was
shutting down.

2025-01 Cumulative Update for .NET
Framework 3.5 and 4.8.1 for Windows 11,
version 24H2 for x64 (KB5049622)

[Download & install](#)

Windows Malicious Software Removal Tool
x64 - v5.131 (KB890830)

[Download & install](#)

2025-01 Cumulative Update for Windows 11 Version 24H2
for x64-based Systems (KB5050009)

[Retry](#)

We could not complete the install because an update service was
shutting down.

Update for Windows Security platform -
KB5007651 (Version 10.0.27703.1006)

[Download & install](#)