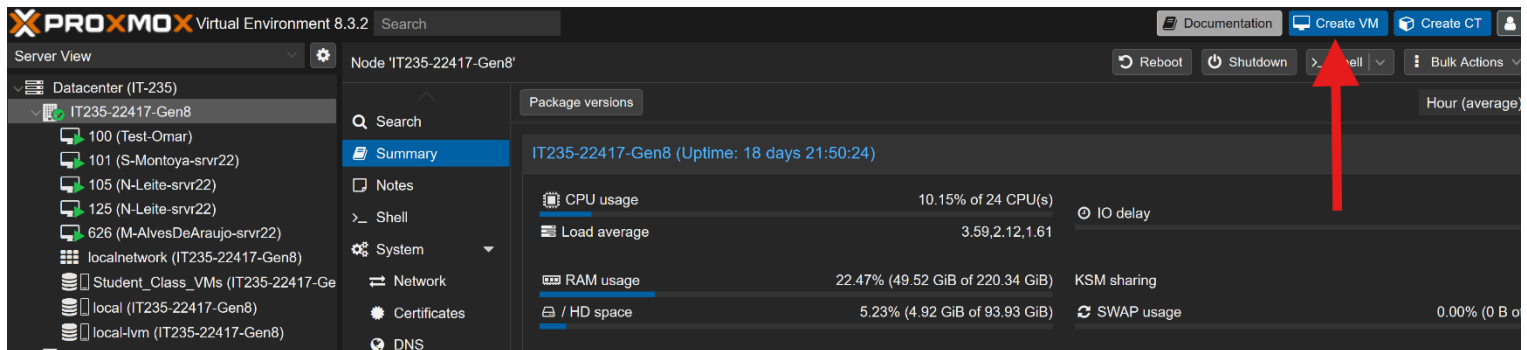


# How to Create a Windows Server 2022 Virtual Machine in Proxmox

**Important: Every time after using your VM save all your work and turn it off.**

In the Proxmox web interface, click Create VM.



In “General,” leave the default “VM ID,” and in the “Name” field, please enter a desired name for your virtual machine, and click Next.

A screenshot of the 'Create: Virtual Machine' dialog box in Proxmox. The 'General' tab is active, showing fields for 'Node' (IT235-22417-Gen8), 'VM ID' (102), and 'Name' (Example-VM). A 'Resource Pool' dropdown is also visible. Two red arrows point to the 'VM ID' and 'Name' fields. At the bottom, there are 'Back' and 'Next' buttons, and an 'Advanced' checkbox.

In the OS tab, click the “ISO image” field, and select “Windows\_SERVER\_2022.iso”, change the “Type” field to “Microsoft Windows”, Check the box “Add additional drive for VirtIO drivers” and in the “ISO image” field select “virtio-win-0.1.266.iso”, and click Next.

Create: Virtual Machine

General OS System Disks CPU Memory Network Confirm

☒ Use CD/DVD disc image file (iso)

Storage: Student\_ISOs

ISO image: Windows\_server\_2022

Guest OS:

Type: Microsoft Windows

Version: 11/2022/2025

☐ Use physical CD/DVD Drive

☒ Add additional drive for VirtIO drivers

Storage: Student\_ISOs

ISO image: virtio-win-0.1.266.iso

☐ Do not use any media

Advanced ☐ Back Next

In the “System” tab, make sure that in the Machine field, “q35” is selected, and in the BIOS field, “OVMF(UEFI)”. Activate "Qemu Agent". In the same tab, change the “EFI Storage” field to “local-lvm” and “TPM Storage” to “local-lvm” and click next.

Create: Virtual Machine

General OS System Disks CPU Memory Network Confirm

Graphic card: Default

Machine: q35

Firmware

BIOS: OVMF (UEFI)

Add EFI Disk: ☒

EFI Storage: local-lvm

Format: Raw disk image (raw)

Pre-Enroll keys: ☒

SCSI Controller: VirtIO SCSI single

Qemu Agent: ☒

Add TPM: ☒

TPM Storage: local-lvm

Version: v2.0

Help Advanced ☐ Back Next

In the “Disk” tab, leave the default “Bus/Device” to “SCSI”, set “Storage” to “Local-lvm” and “Disk size (GiB)” field to 40, leave “Cache” as “Default (No cache)” Check the “Discard” box, check the “Advance” box and check the “SSD Emulation” box, and click Next.

Create: Virtual Machine

General OS System **Disks** CPU Memory Network Confirm

scsi0

**Disk** Bandwidth

Bus/Device: SCSI 0 Cache: Default (No cache)

SCSI Controller: VirtIO SCSI single Discard: ☒

Storage: local-lvm IO thread: ☒

Disk size (GiB): 40 Format: Raw disk image (raw)

SSD emulation: ☒ Backup: ☒

Read-only: ☐ Skip replication: ☐

Async IO: Default (io\_uring)

Add

Help Advanced ☒ **Next** Back

In the “CPU” tab, change “Cores” to 4, and “Type” to “host” (last option in the list) and click Next.

Create: Virtual Machine

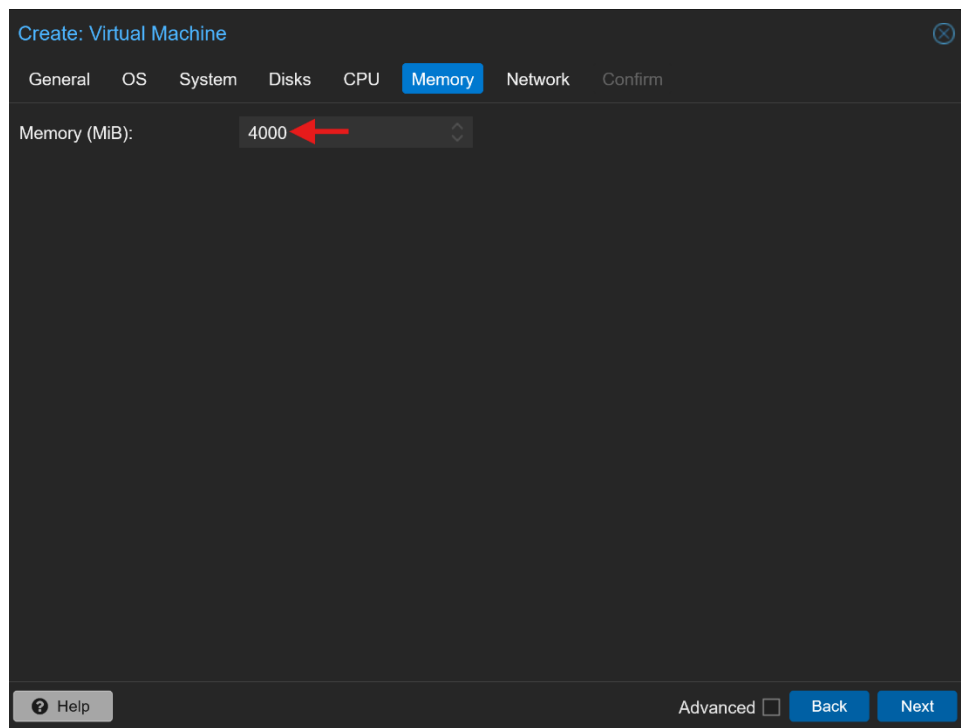
General OS System Disks **CPU** Memory Network Confirm

Sockets: 1 Type: host

Cores: 4 Total cores: 4

Help Advanced ☐ **Next** Back

In the “Memory” tab, change “Memory (MiB)” to “4000” and click Next



The screenshot shows the 'Create: Virtual Machine' dialog with the 'Memory' tab selected. The 'Memory (MiB)' field is set to '4000', with a red arrow pointing to it. The 'Advanced' checkbox is unchecked. The 'Back' and 'Next' buttons are visible at the bottom right.

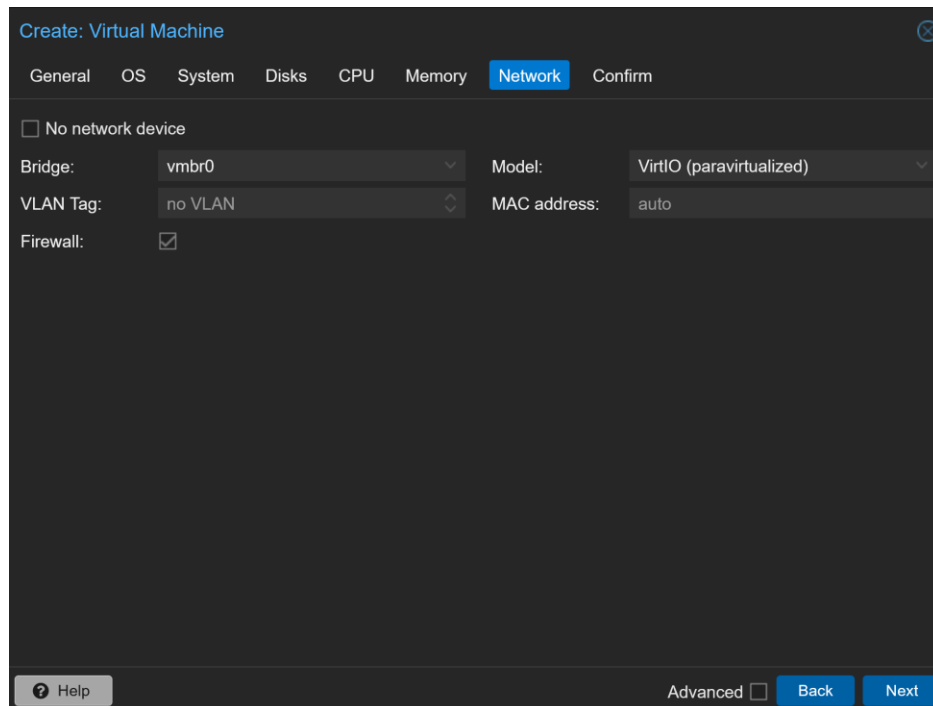
Create: Virtual Machine

General OS System Disks CPU **Memory** Network Confirm

Memory (MiB): 4000

Help Advanced Back Next

In the “Network” tab, leave the default options and it should be the same as in the screenshot below, and click Next.



The screenshot shows the 'Create: Virtual Machine' dialog with the 'Network' tab selected. The 'No network device' checkbox is unchecked. The 'Bridge' is set to 'vmb0', 'Model' is 'VirtIO (paravirtualized)', 'VLAN Tag' is 'no VLAN', 'MAC address' is 'auto', and 'Firewall' is checked. The 'Advanced' checkbox is unchecked. The 'Back' and 'Next' buttons are visible at the bottom right.

Create: Virtual Machine

General OS System Disks CPU Memory **Network** Confirm

☐ No network device

Bridge: vmb0 Model: VirtIO (paravirtualized)

VLAN Tag: no VLAN MAC address: auto

Firewall: ☒

Help Advanced Back Next

In the “Confirm” tab, review your configurations, and click Finish.

Create: Virtual Machine

General

OS

System

Disks

CPU

Memory

Network

Confirm

Key ↑	Value
agent	1
bios	ovmf
boot	order=scsi0;ide0;ide2;net0
cores	4
cpu	host
efidisk0	local-lvm:1,efitype=4m,pre-enrolled-keys=1
ide0	Student_ISOs:iso/virtio-win-0.1.266.iso,media=cdrom
ide2	Student_ISOs:iso/Windows_server_2022_x64_dvd.iso,media=cdrom
machine	q35
memory	4000
name	TEST
net0	virtio,bridge=vibr0,firewall=1
nodename	IT125P-22412-R650XS
numa	0

☐ Start after created

Advanced ☐

Back

Finish

Select your VM from the left menu, click on the option labeled “Console” and click Start now

Server View

Datacenter

2259-R650XS

100 (TestW11VM)

localnetwork (2259-R650XS)

Student\_Class\_VMs (2259-R650XS)

local (2259-R650XS)

local-lvm (2259-R650XS)

Virtual Machine 100 (TestW11VM) on node '2259-R650XS'

No Tags

Summary

Console

Hardware

Cloud-Init

Options

Task History

Monitor

Backup

Replication

Snapshots

Firewall

Permissions

VNC

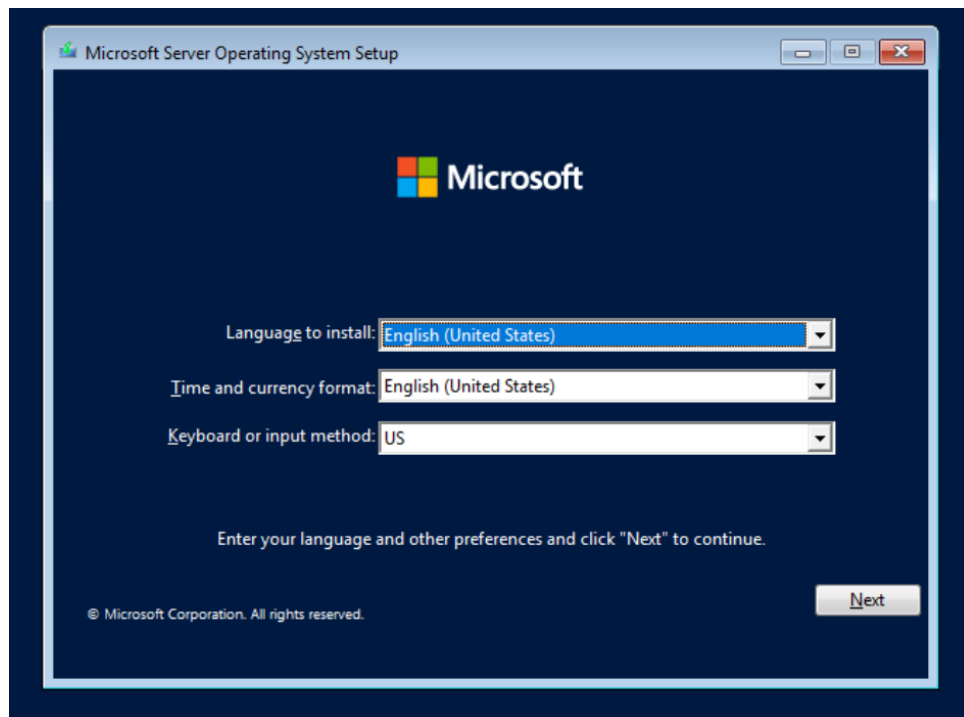
Guest not running

Start Now

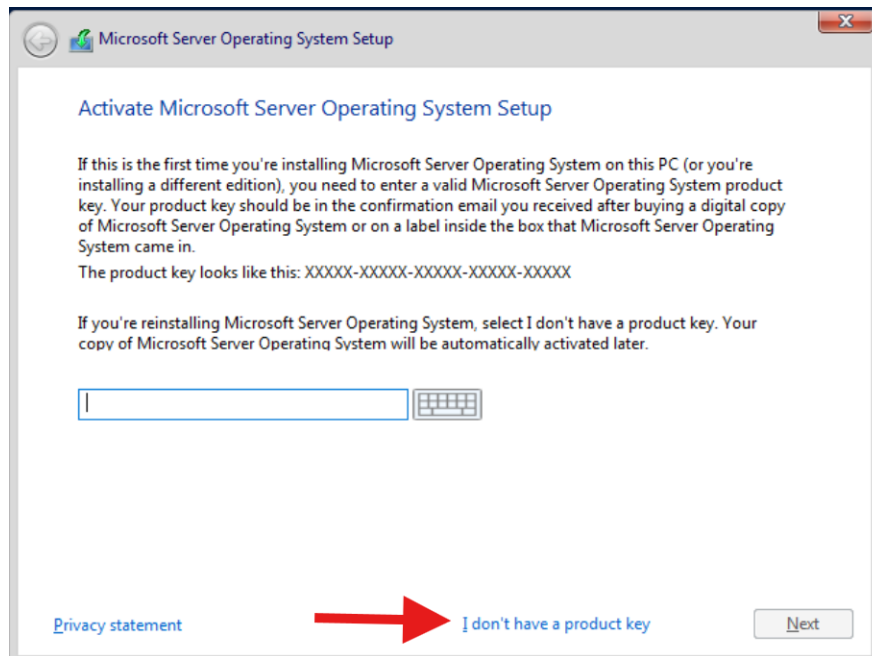
Hit “Enter” or any key to boot from CD. You will only have a few seconds to do this: if you miss the opportunity, Stop the machine by right-clicking on your VM and clicking “Stop.” Start the machine and try again.



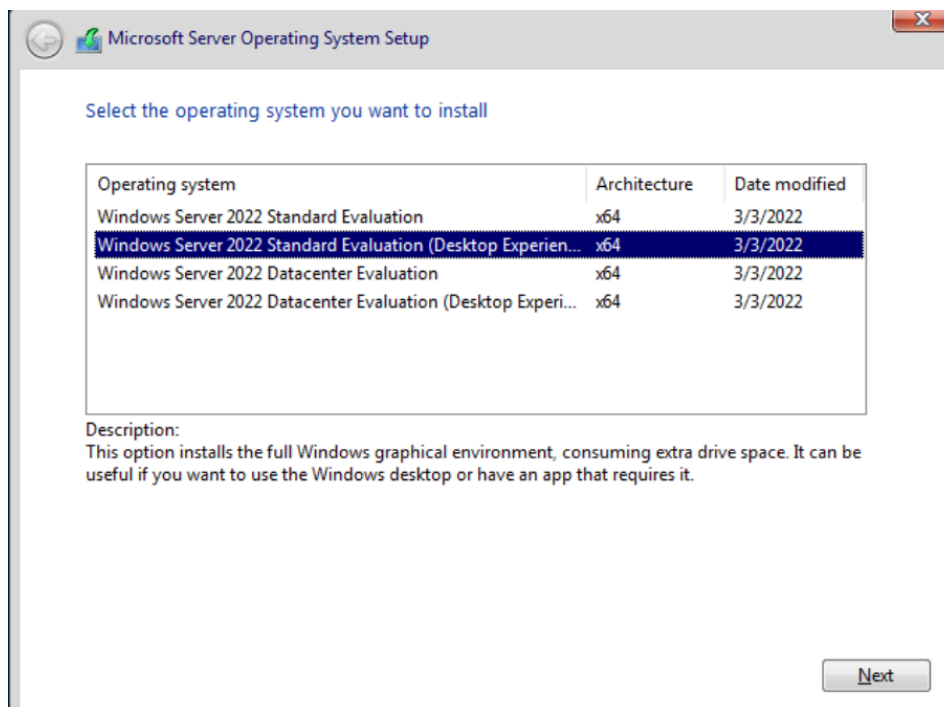
On the Operating System Setup, click Next and Install Now.



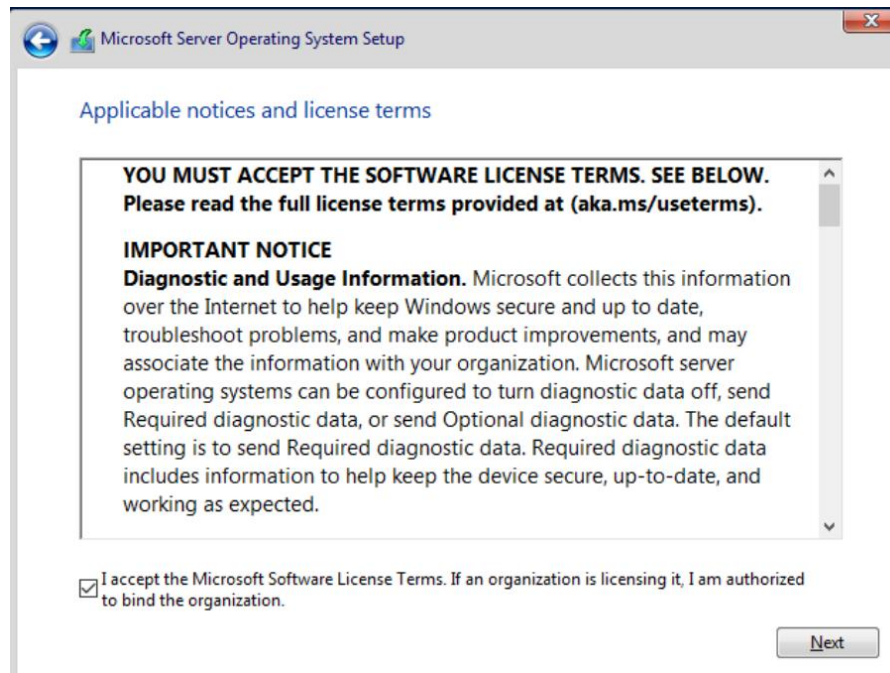
Click on “I don’t have a product key”



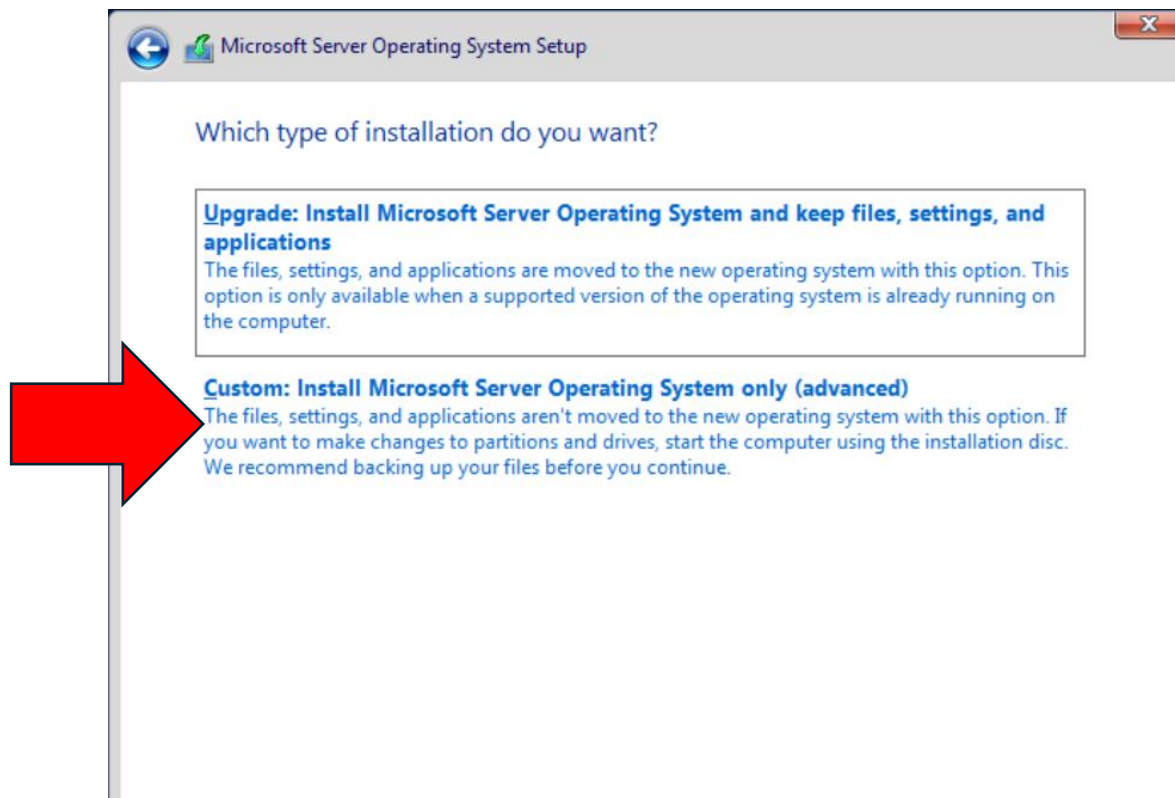
Select the Windows Server 2022 operating system. “Standard Evaluation” for a server with no Graphical User Interface and “Standard Evaluation (Desktop Experience)” for a server with a Graphical user interface. (I chose Windows Server 2022 Standard Evaluation Desktop Experience for this example.) Click Next.



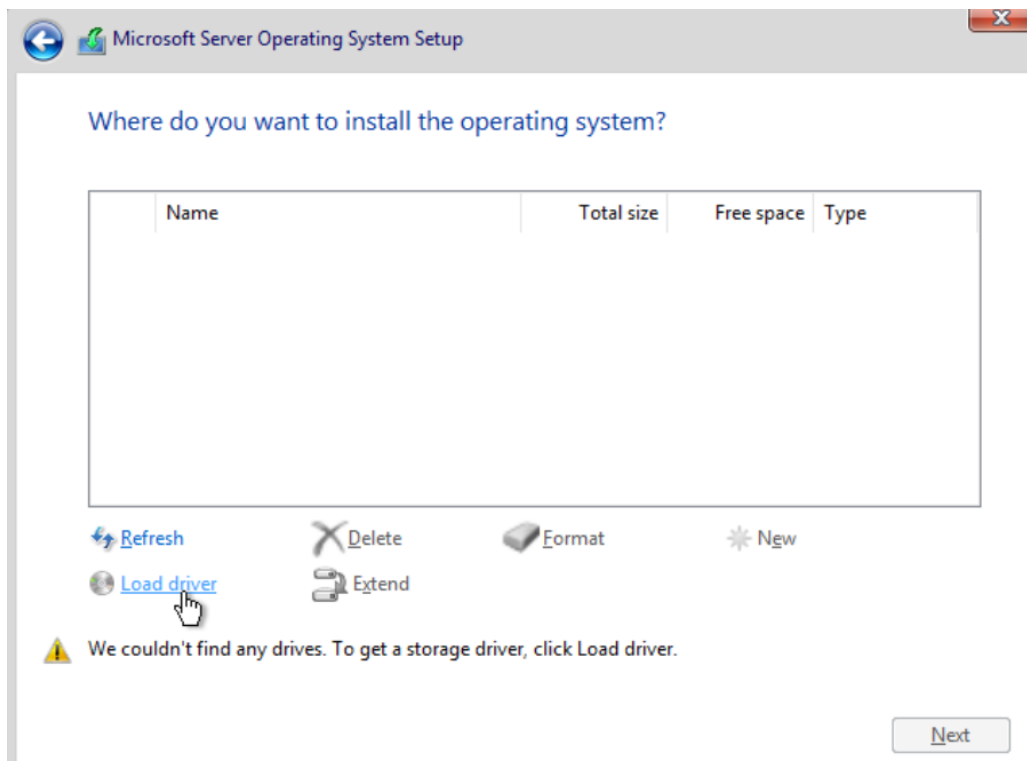
Accept the license terms and click Next.



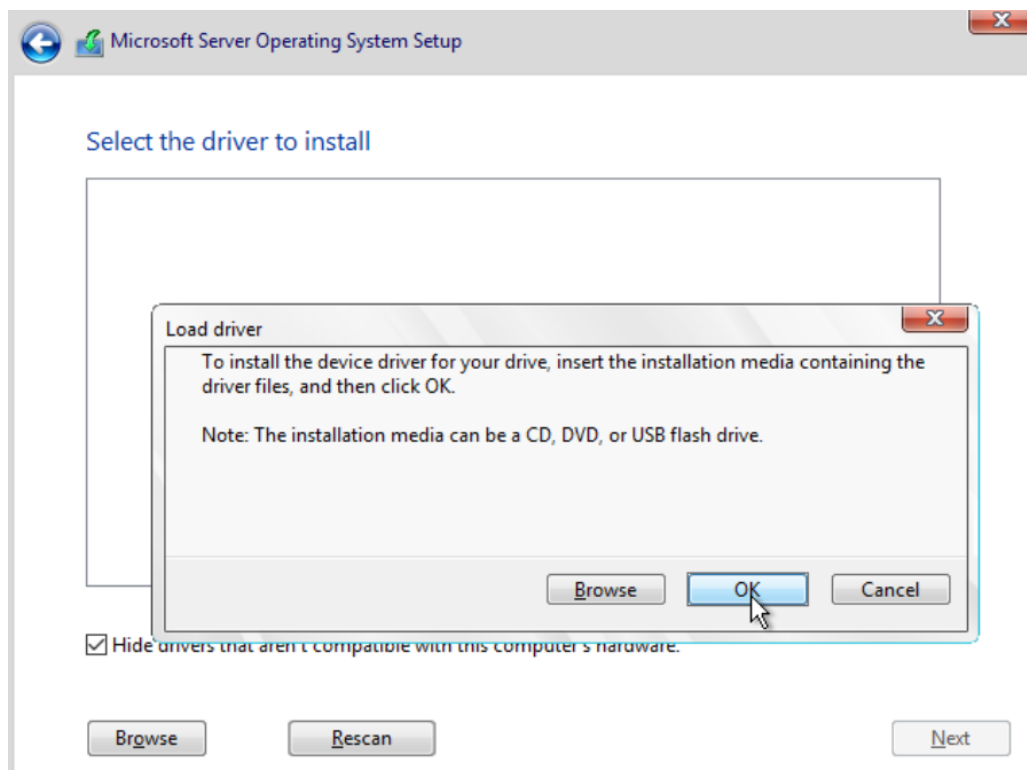
Click on “Custom: Install Microsoft Server Operating System only (advanced).”



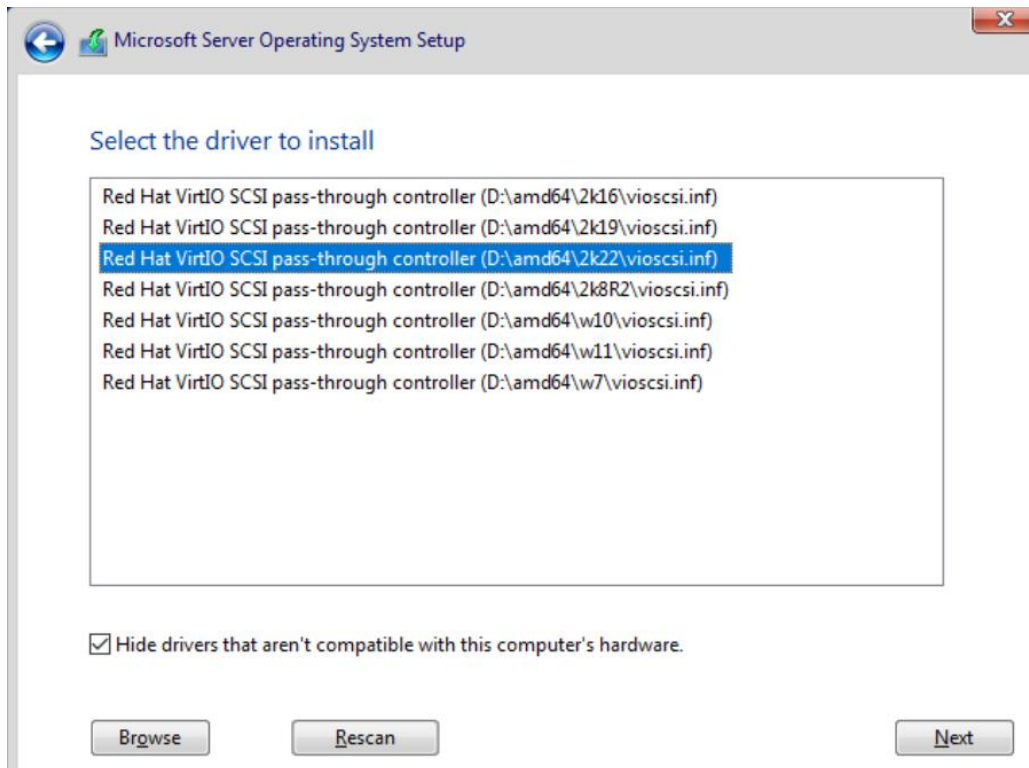
Click on “Load Driver”



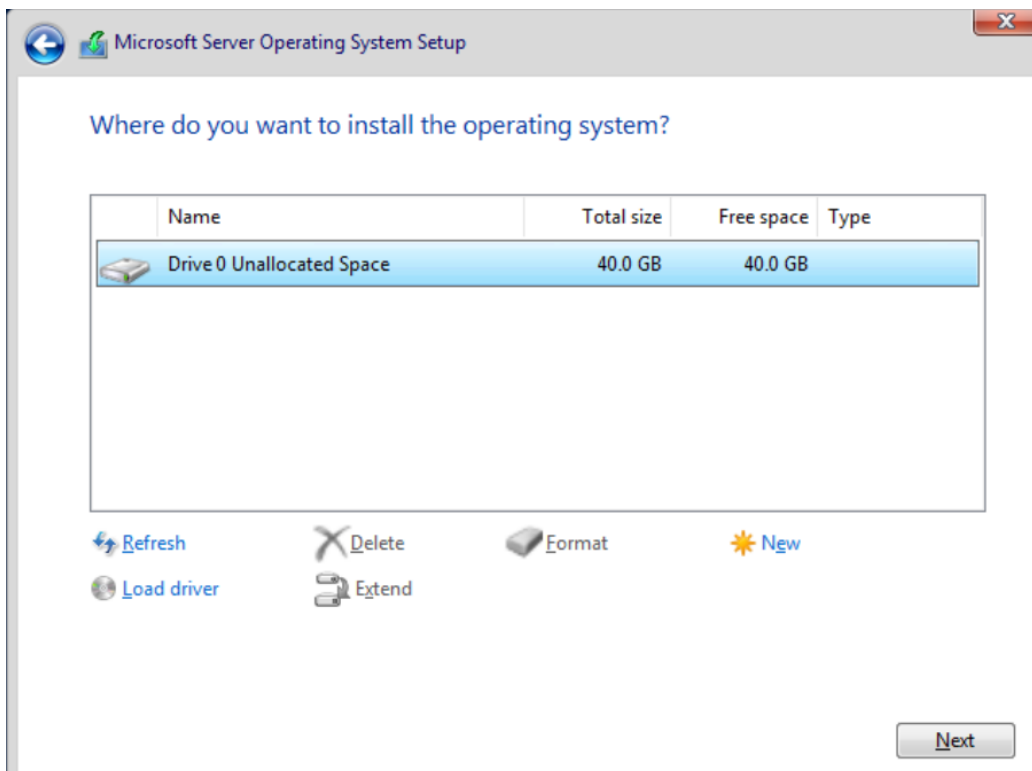
Click Ok.



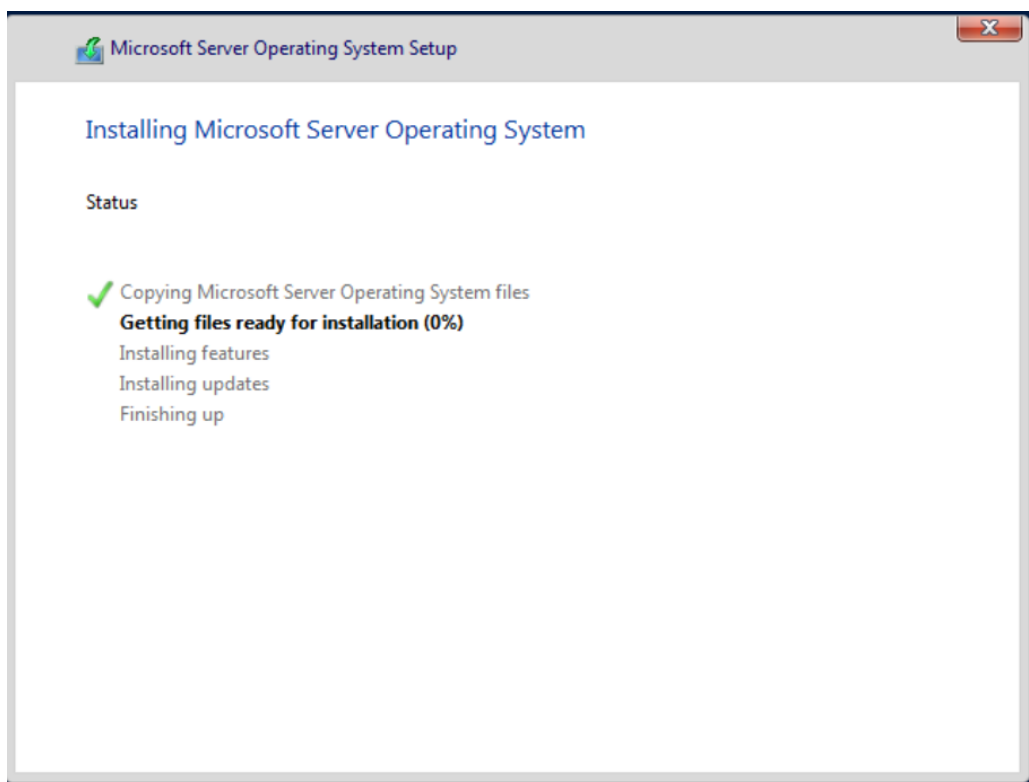
Select “(D:\amd64\2k22\vioscsi.inf)” and click Next.



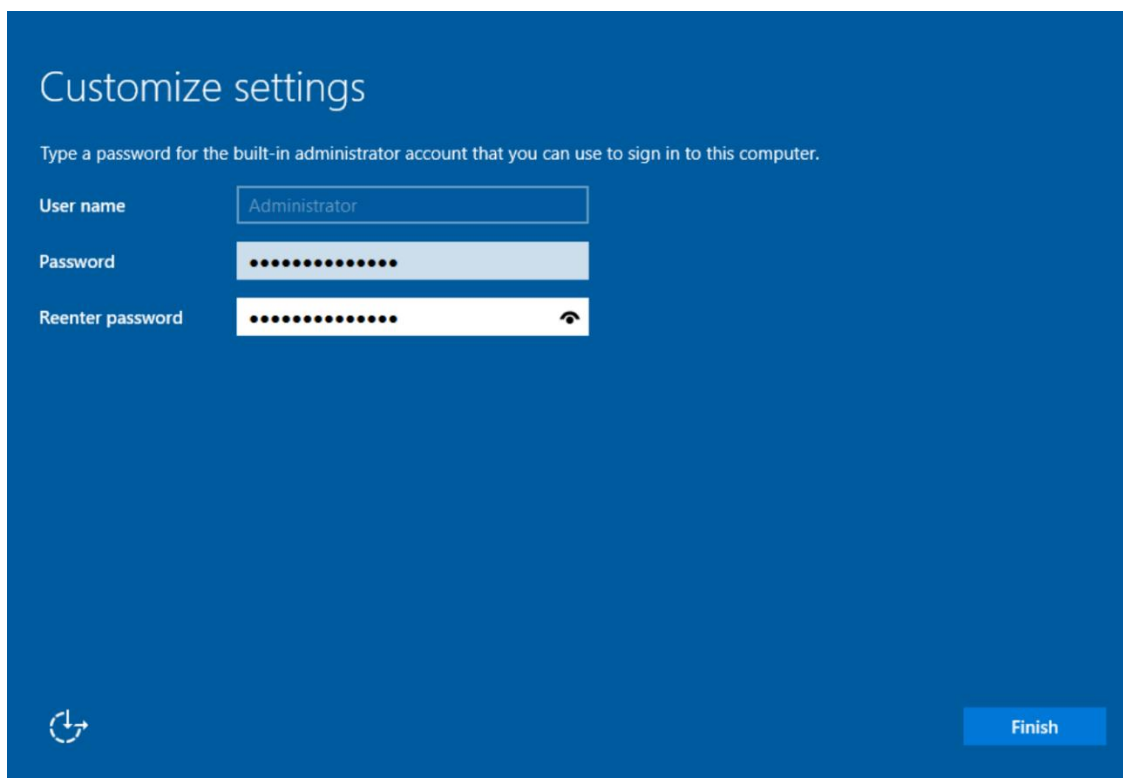
Click Next



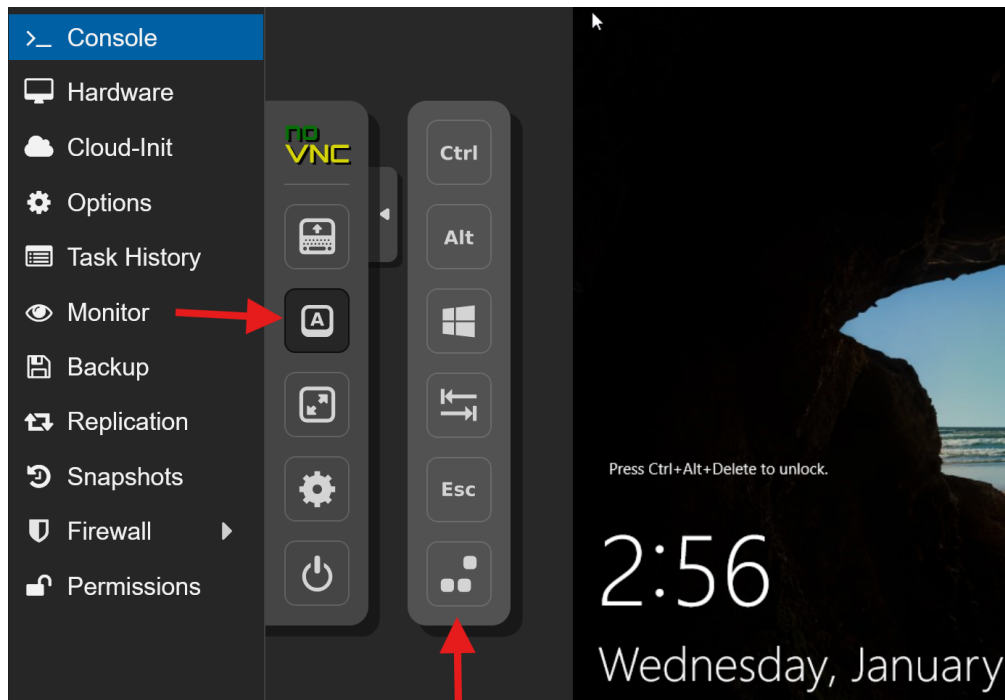
Wait for the Installation process to finish. The VM will reboot automatically.



Set a Password for your VM and click Finish.

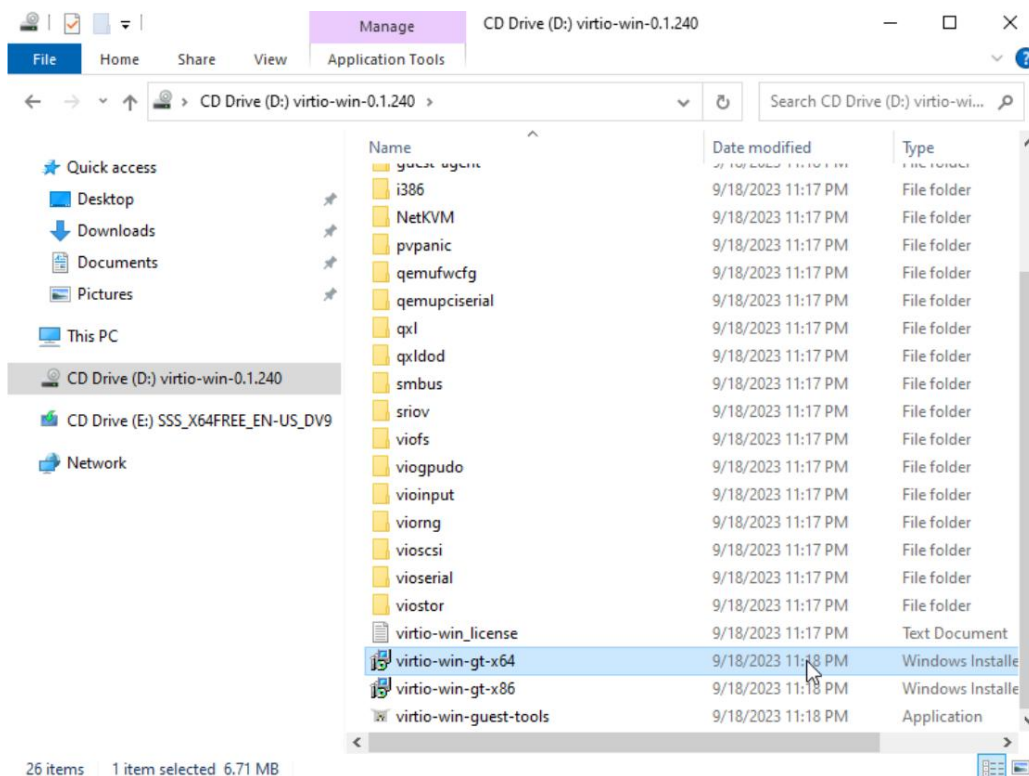


Send CTRL+ALT+DEL to unlock your VM and type your password to log in.

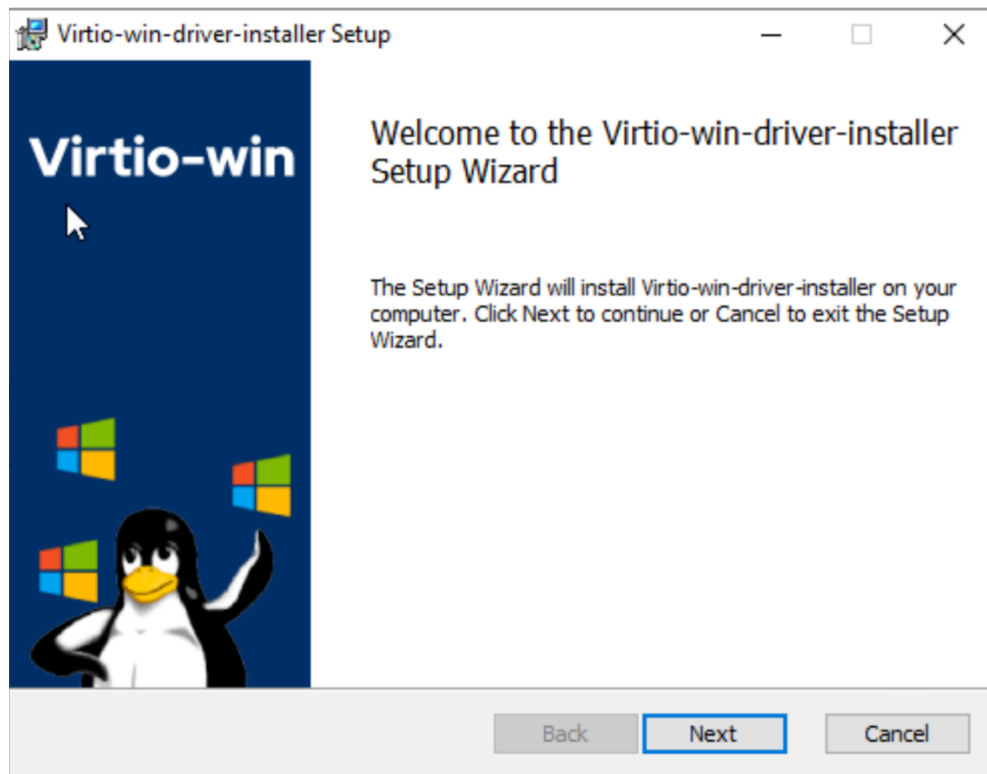


To connect your VM to the internet, do the following steps:

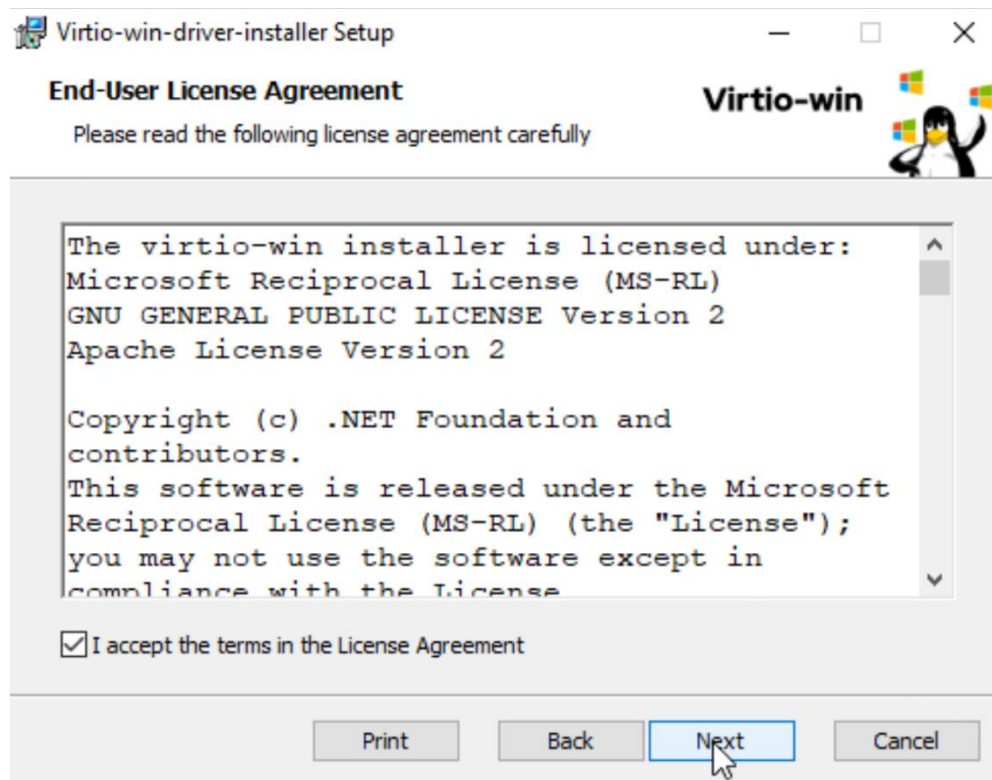
Open File Explorer and select CD Drive (D:) virtio-win-0.1.240. Scroll down and double-click virtio-win-gt-x64



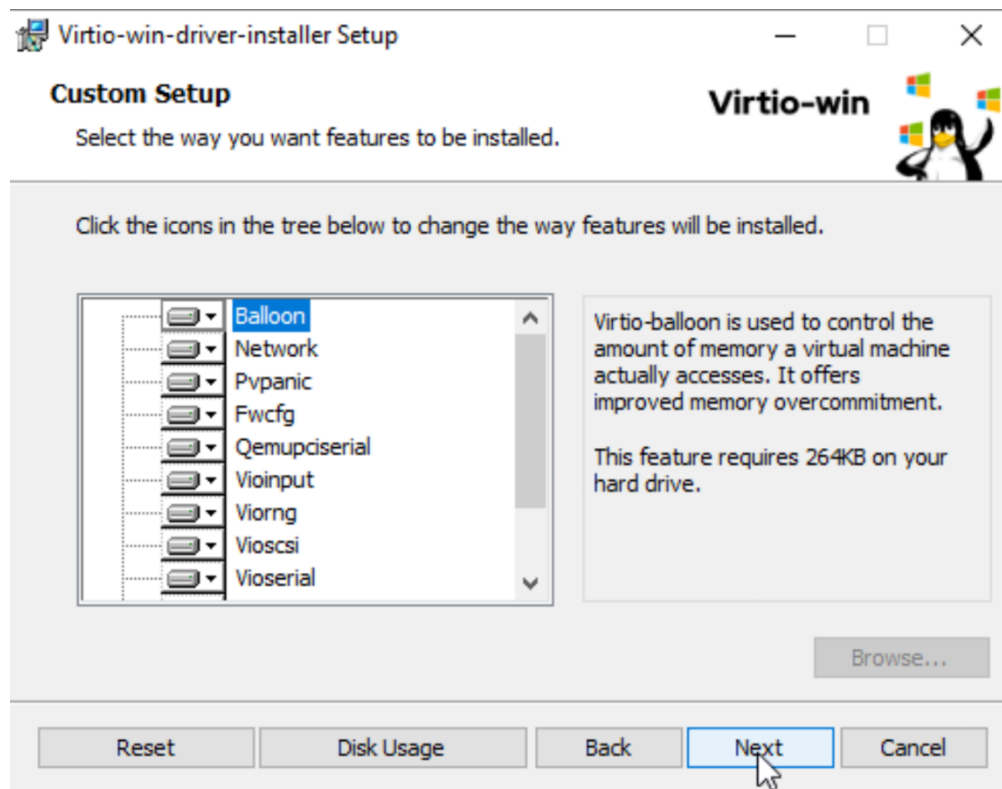
Click Next



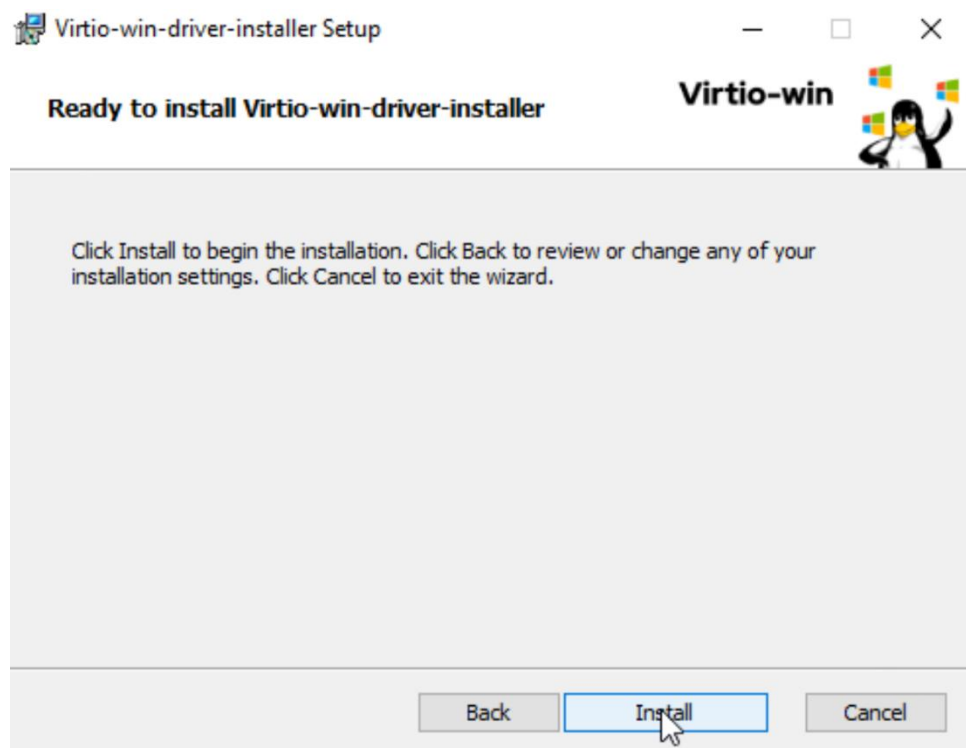
Accept the terms and click Next.



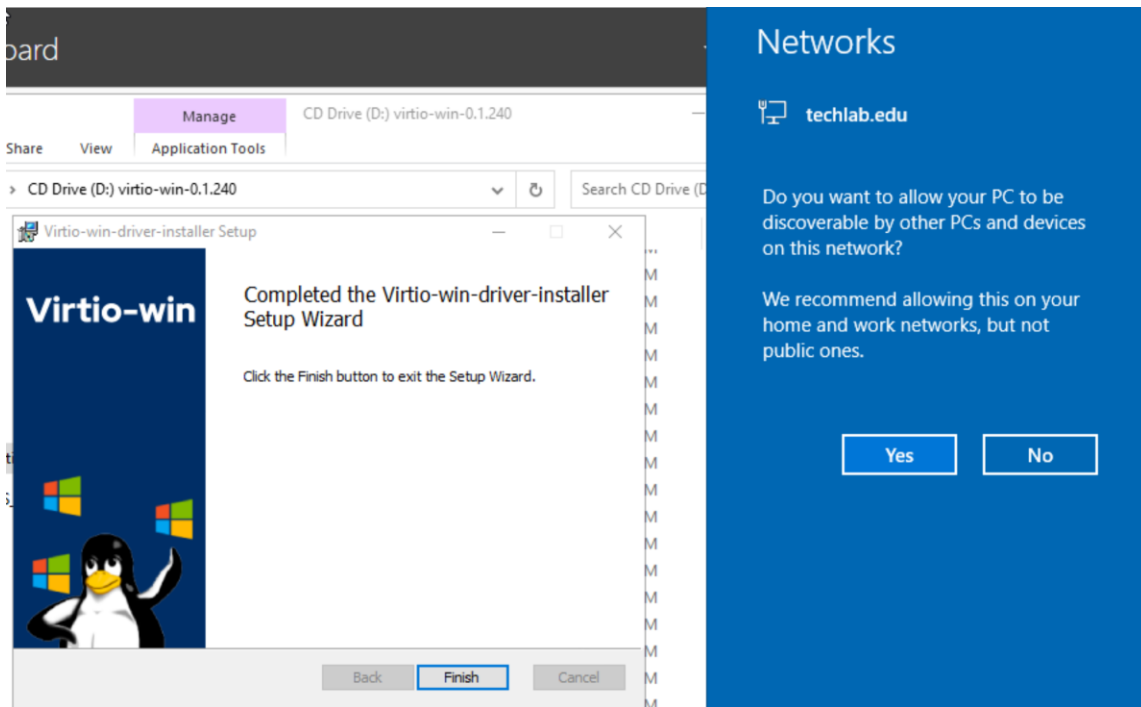
Click Next.



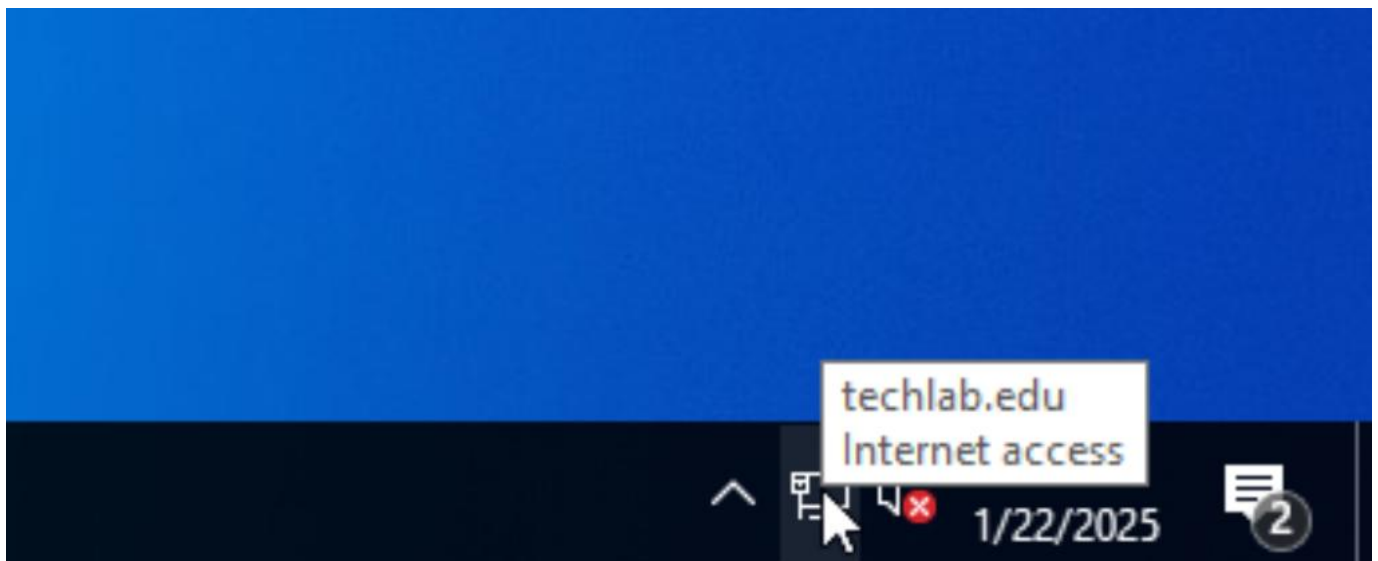
Click Install



Click Finish and Yes to allow your PC to be discoverable by other PCs and devices on this network.



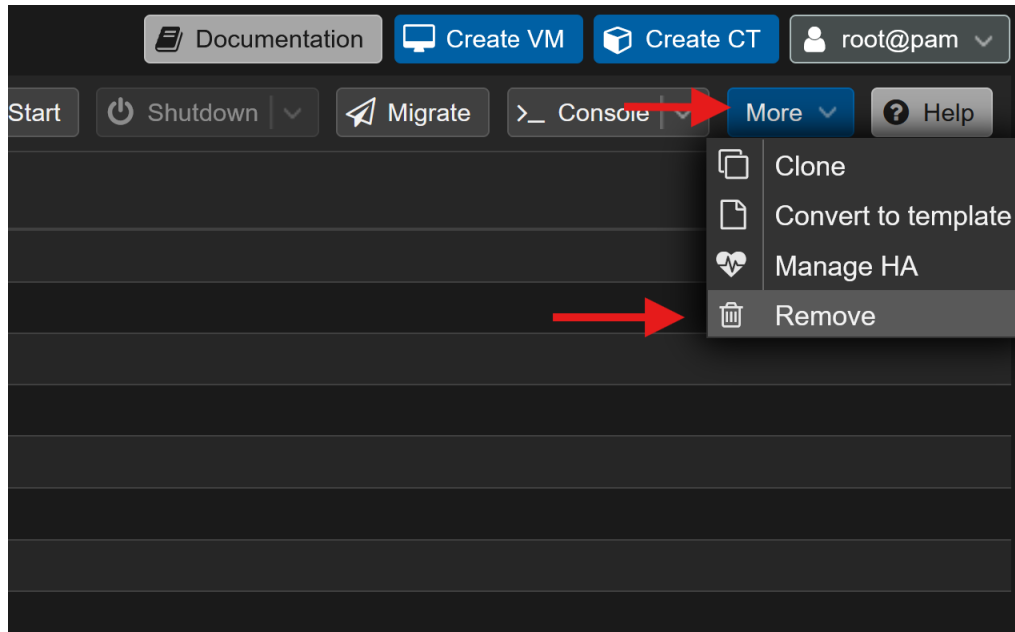
You should have an internet connection now; you can confirm on the taskbar.



Please restart your VM before using it for the first time and turn it off every time after using it. If you have any issues with your VM or any questions, please send us an email at [techlab@ensign.edu](mailto:techlab@ensign.edu)

Important: please delete your VM once you no longer need it.

Navigate to the "More" option in the upper right corner in the Proxmox interface and click "Remove".



Type your VM ID number and select "Purge from job configurations" and "Destroy unreferenced disks owned by guest", click "Remove."

