

# INSTALLATION OF PFSense AND CONFIGURATION

FOR INSTALLING AND CONFIGURING PFSense ON YOUR SYSTEM

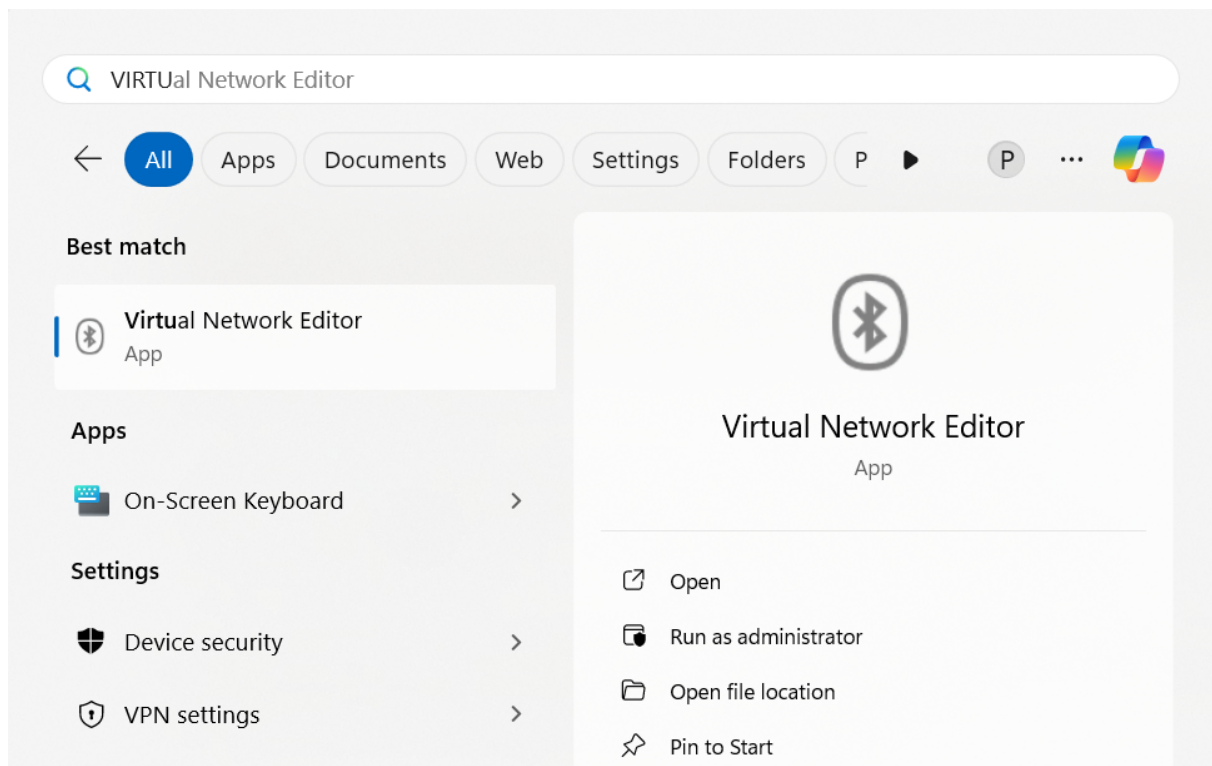
TO INSTALL USE - <https://archive.org/download/pfSense-CE-2.6.0-RELEASE-amd64/pfSense-CE-2.6.0-RELEASE-amd64.iso>

IF YOU ALREADY HAVE IT INSTALL THEN SLIDE DOWN TO KNOW THE STEPS WHICH SHOULD BE DONE BEFORE CONFIGURING PFSense ON THE VMWARE

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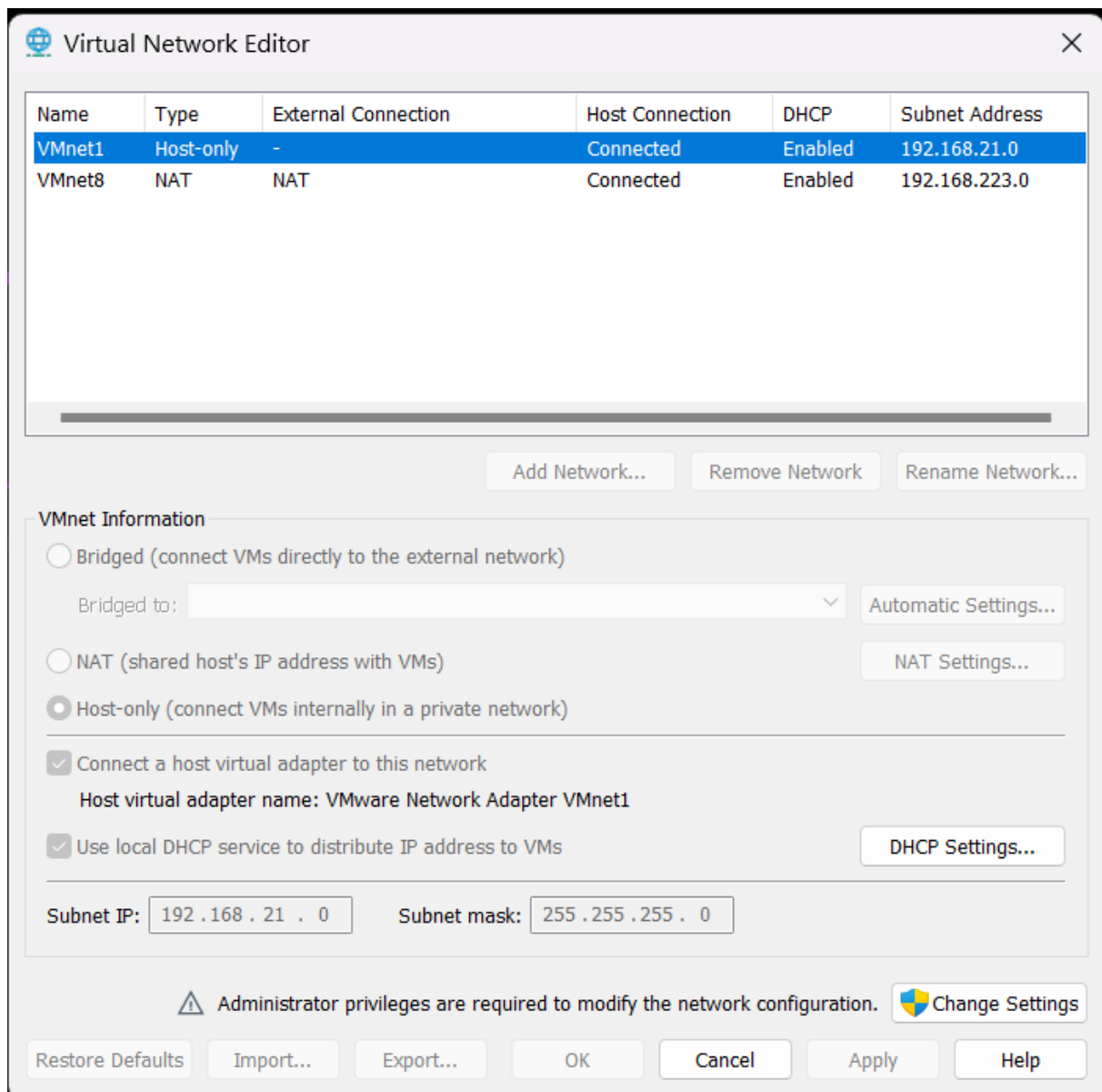
## CONFIGURATION ON VIRTUAL NETWORK EDITOR

STEP 1 - SEARCH FOR VIRTUAL NETWORK EDITOR

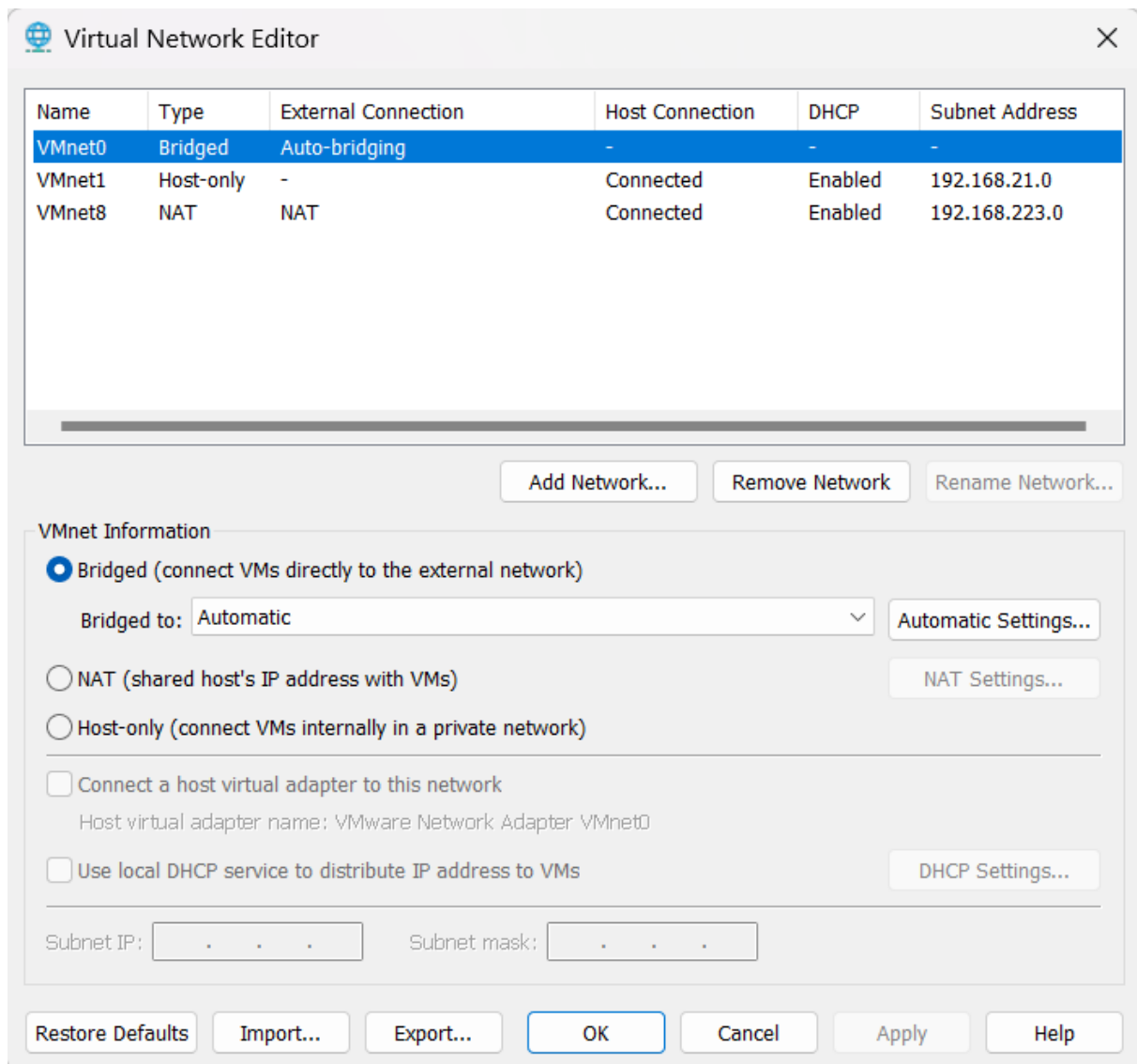


THEN OPEN THE VIRTUAL NETWORK EDITOR.

NOW YOU SEE THESE INTERFACE -



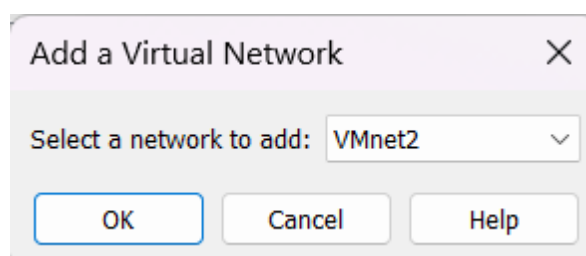
LOOK ON THE PICTURE AND SEE A LINE ID MENTIONED AS ADMINISTRATOR PRIVILEGES REQUIRED TO → CLICK ON CHANGE SETTINGS AND ON A POP-UP SELECT YES TO ACCEPT ADMINISTRATOR PRIVILEGES.



NOW YOU CAN OBSERVE THAT ALL THE OPTIONS ARE UNLOCKED NOW.

STEP 2 - ADDING A VIRTUAL NETWORK SEPARATE FOR PFSENSE.

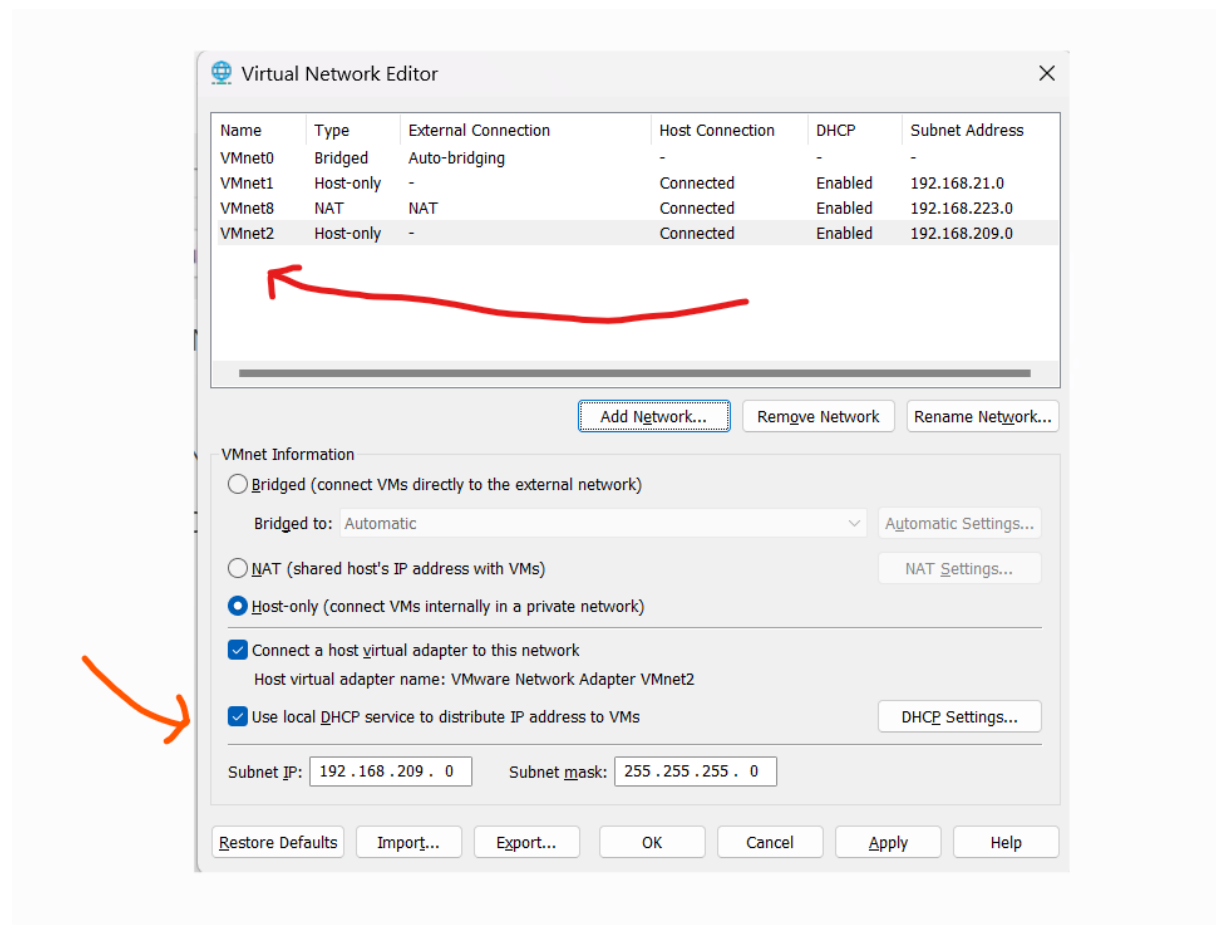
CLICK ON ADD NETWORK -



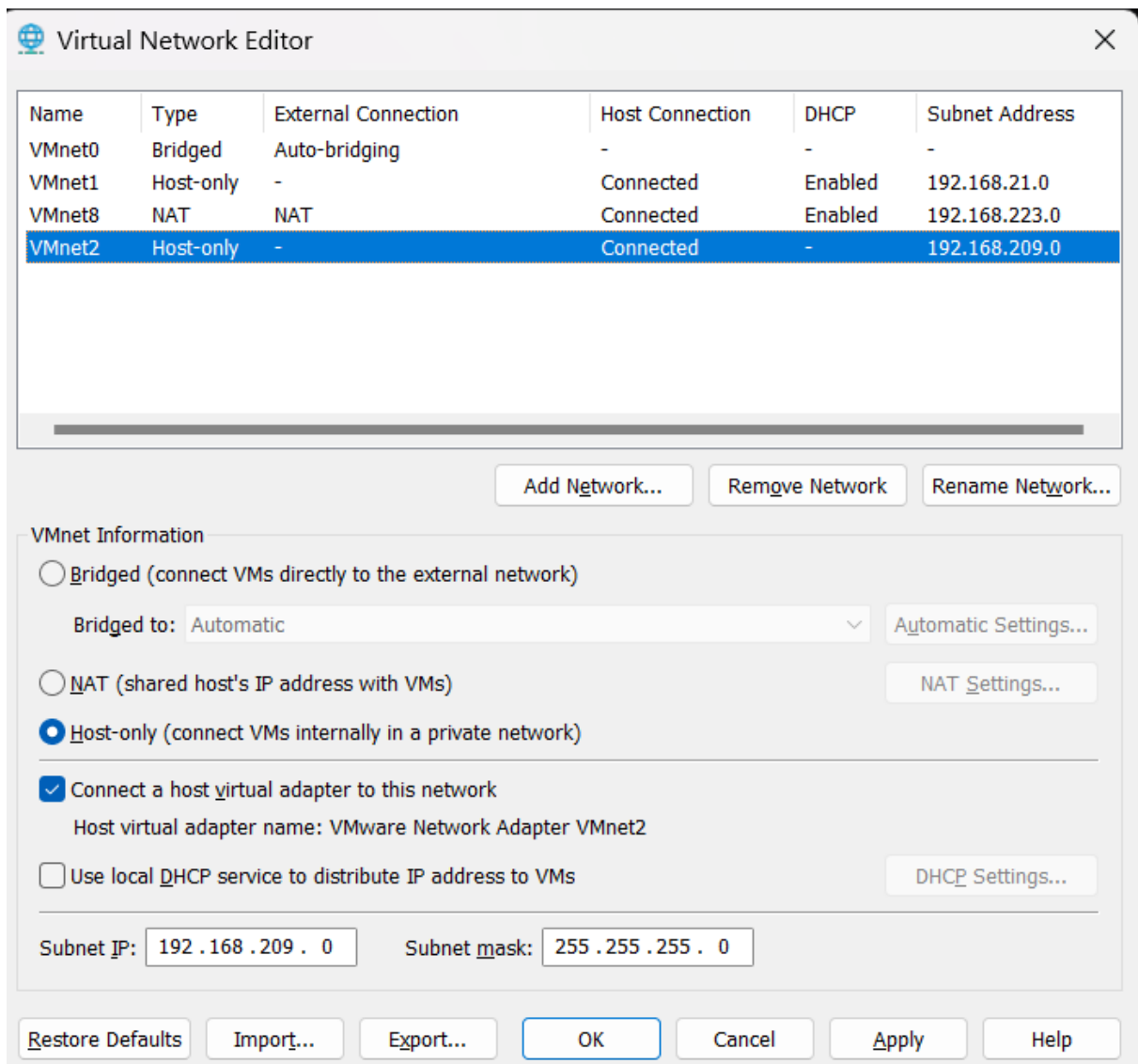
CLICK ON "OK" TO ADD THE NEW VIRTUAL NETWORK ON THE EDITOR .

IMP.NOTE - THIS CREATION IS DONE ONLY TO USE FOR SEPARATE VIRTUAL MACHINES AND FOR PFSense , SPECIFICALLY WE HAVE TO CREATE A SEPARATE NETWORK.

NOW IN THE NEXT STEP -



YOU CAN SEE THE VMnet2 IS CREATED , SELECT THE VMnet2 , THEN UNCLICK THE " USE LOCAL DHCP SERVICE " OPTION. THEN CLICK APPLY



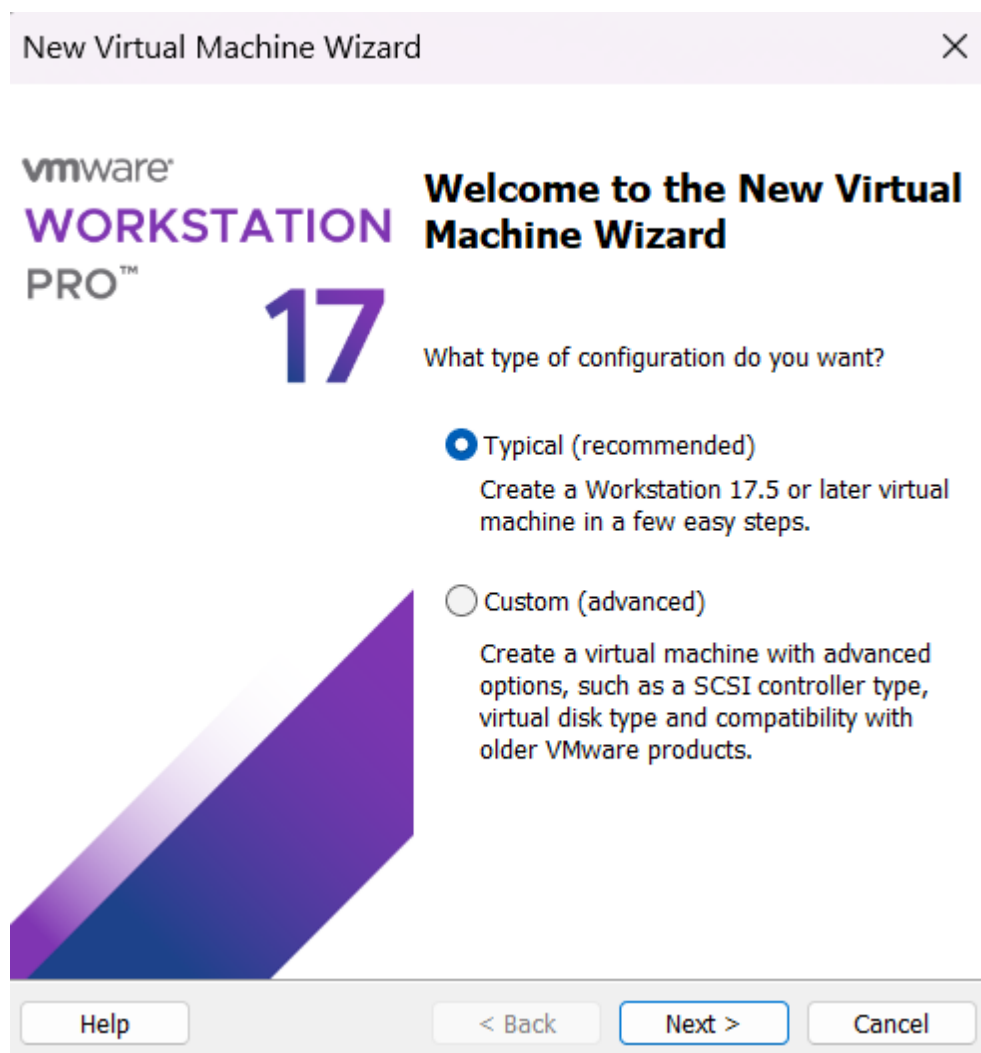
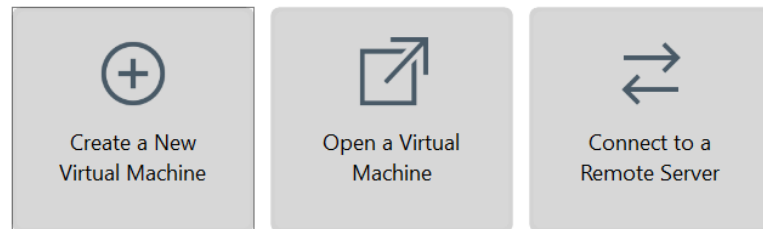
AFTER ALL THESE STEPS YOU ARE GOOD TO GO NOW .

## INSTALLING PFSENSE ON VMWARE

NOW WE WILL CREATE THE VIRTUAL MACHINE - PFSENSE

STEP 1 - OPEN VMWARE AND CLICK ON "CREATE VIRTUAL MACHINE. "

## WORKSTATION PRO™ 17



NOW CLICK ON NEXT AND CHOOSE YOUR PFSENSE ISO FILE FROM YOU COMPUTER BY CLICKING ON INSTALLER DISC IMAGE OPTION TO INSTALL THE ISO FILE EASILY .

New Virtual Machine Wizard ✕

**Guest Operating System Installation**

A virtual machine is like a physical computer; it needs an operating system. How will you install the guest operating system?

Install from:

☐ Installer disc:

No drives available

☒ Installer disc image file (iso):

C:\Users\ASUS\Downloads\pfSense-CE-2.6.0-RELEASE.iso

Browse...

FreeBSD version 10 and earlier 64-bit detected.

☐ I will install the operating system later.

The virtual machine will be created with a blank hard disk.

Help < Back Next > Cancel

NOW NAME IT AS pfSENSE FIREWALL . THEN AFTER CLICKING ON NEXT WE WILL GET THIS POP-UP -



New Virtual Machine Wizard

×

**Specify Disk Capacity**  
How large do you want this disk to be?

The virtual machine's hard disk is stored as one or more files on the host computer's physical disk. These file(s) start small and become larger as you add applications, files, and data to your virtual machine.

Maximum disk size (GB):

Recommended size for FreeBSD version 10 and earlier 64-bit: 20 GB

☐ Store virtual disk as a single file

☒ Split virtual disk into multiple files

Splitting the disk makes it easier to move the virtual machine to another computer but may reduce performance with very large disks.

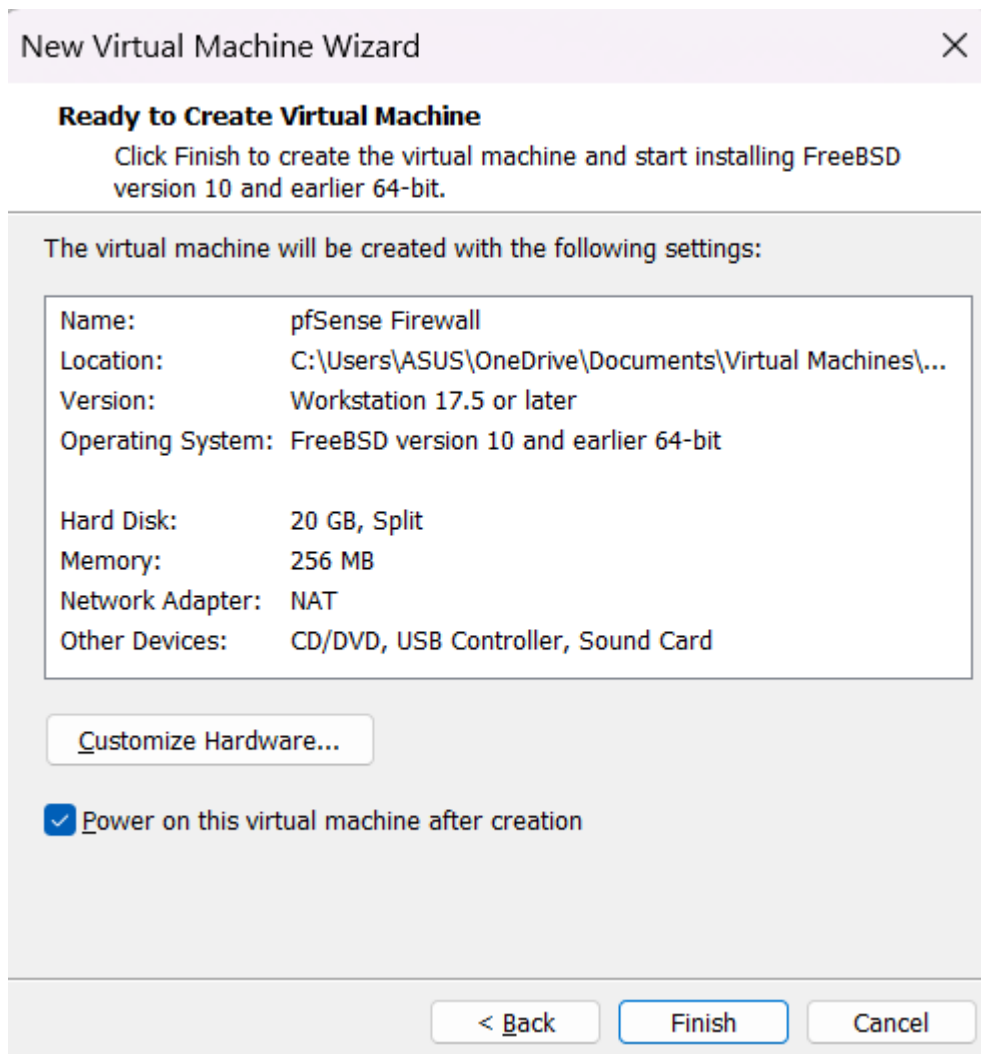
Help

< Back

Next >

Cancel

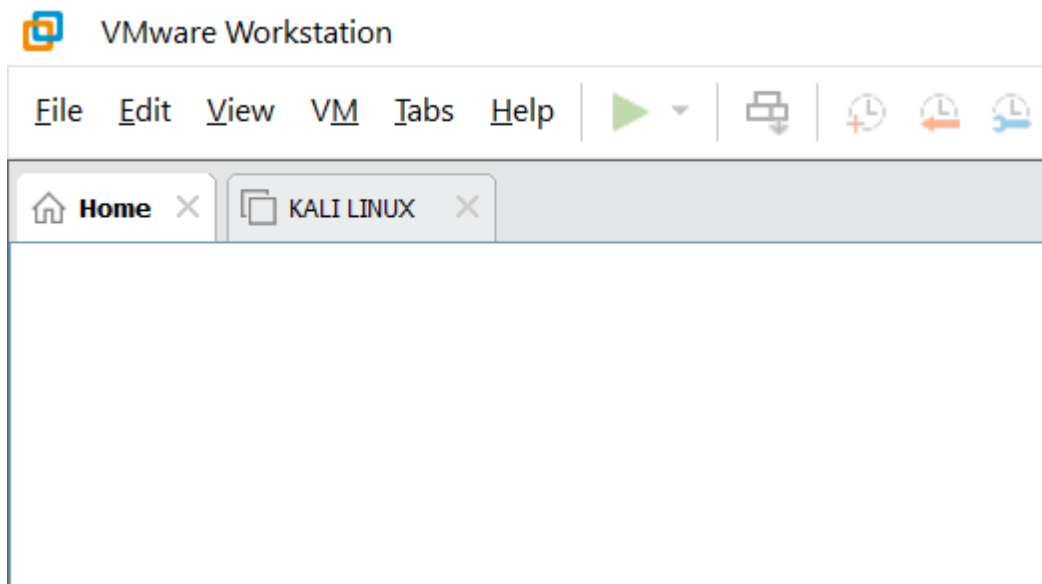
LET IT BE 20 GB SPACE AND DO-NOT UNCHECK THE SPLIT VIRTUAL DISK OPTION AS IT IS THE NECESSARY OPTION . NOW CLICK ON NEXT TO CHECK THE HARDWARE REQUIREMENTS.



CLICK ON FINISH . THEN YOU WILL SEE THE PFSense WILL AUTOMATICALLY START TO FIRST POWER OFF IT .

BUT HERE COMES AN ISSUE WHEN WE TURN THE POWER OFF THE VIRTUAL MACHINE GETS DISAPPEARED FROM THE VMWARE . IT HAPPENS ON VMWARE 16 OR VMWARE 17 AS THE LIBRARY OPTION ON THE VMWARE IS NOT AVAILABLE HERE.

FOR EXAMPLE -

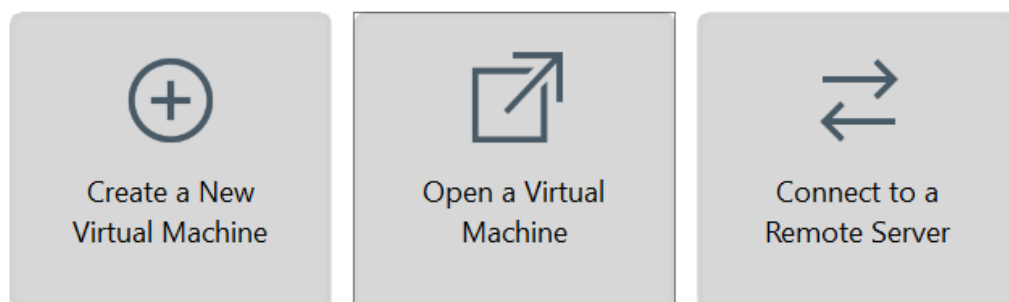


IT IS SHOWING HOME AND MY KALI SYSTEM .

BUT DO NOT NEED TO WORRY BECAUSE IT IS ALREADY CREATED ON YOUR SYSTEM .

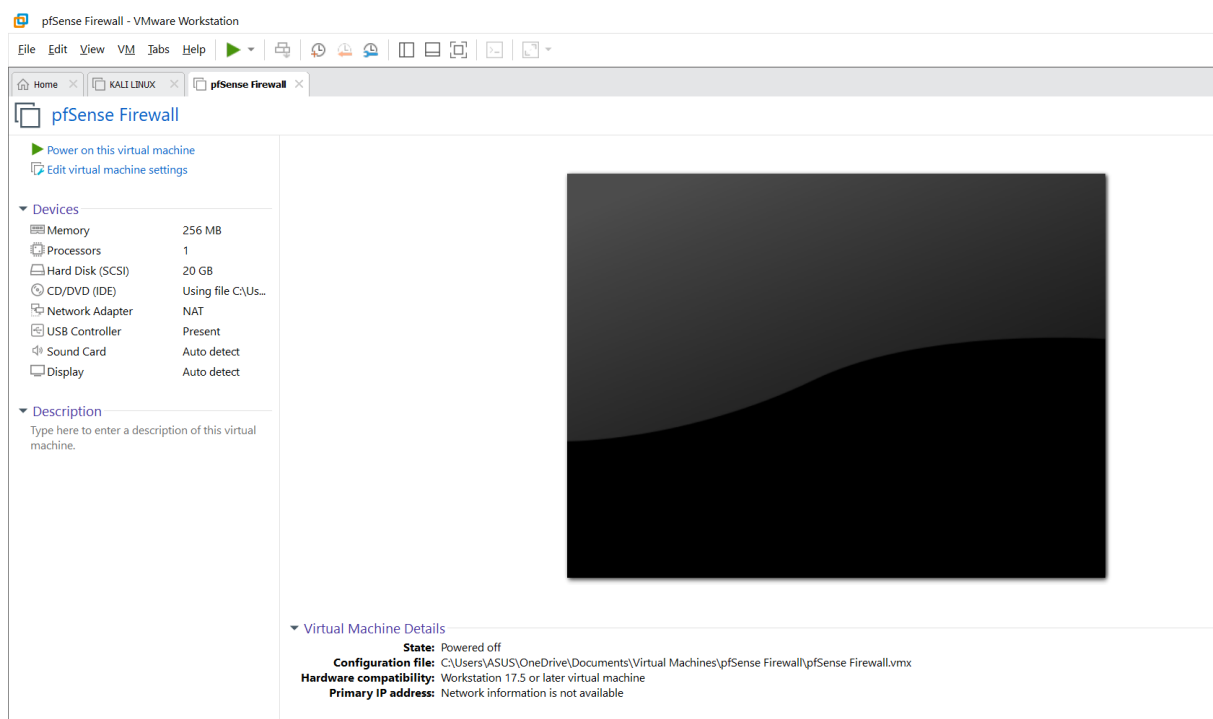
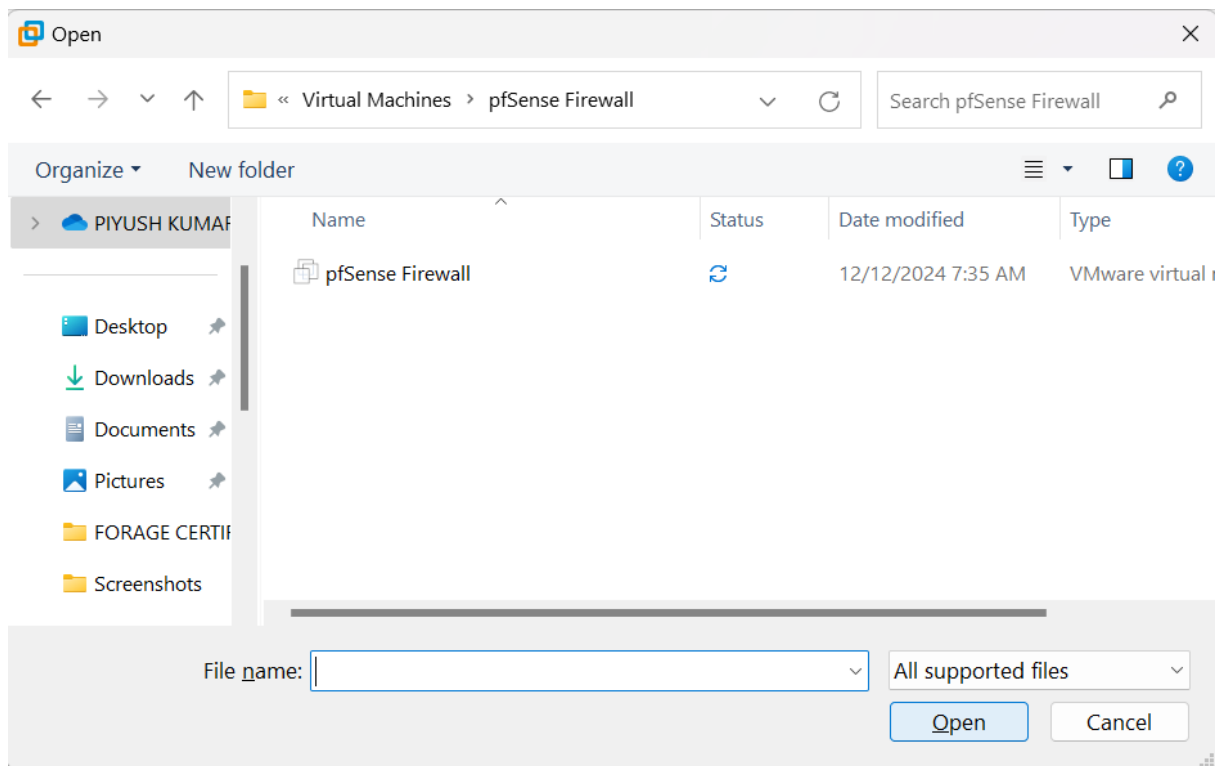
SO FOLLOW THESE STEPS TO ACCESS THE VMs AGAIN.

## WORKSTATION PRO™ 17

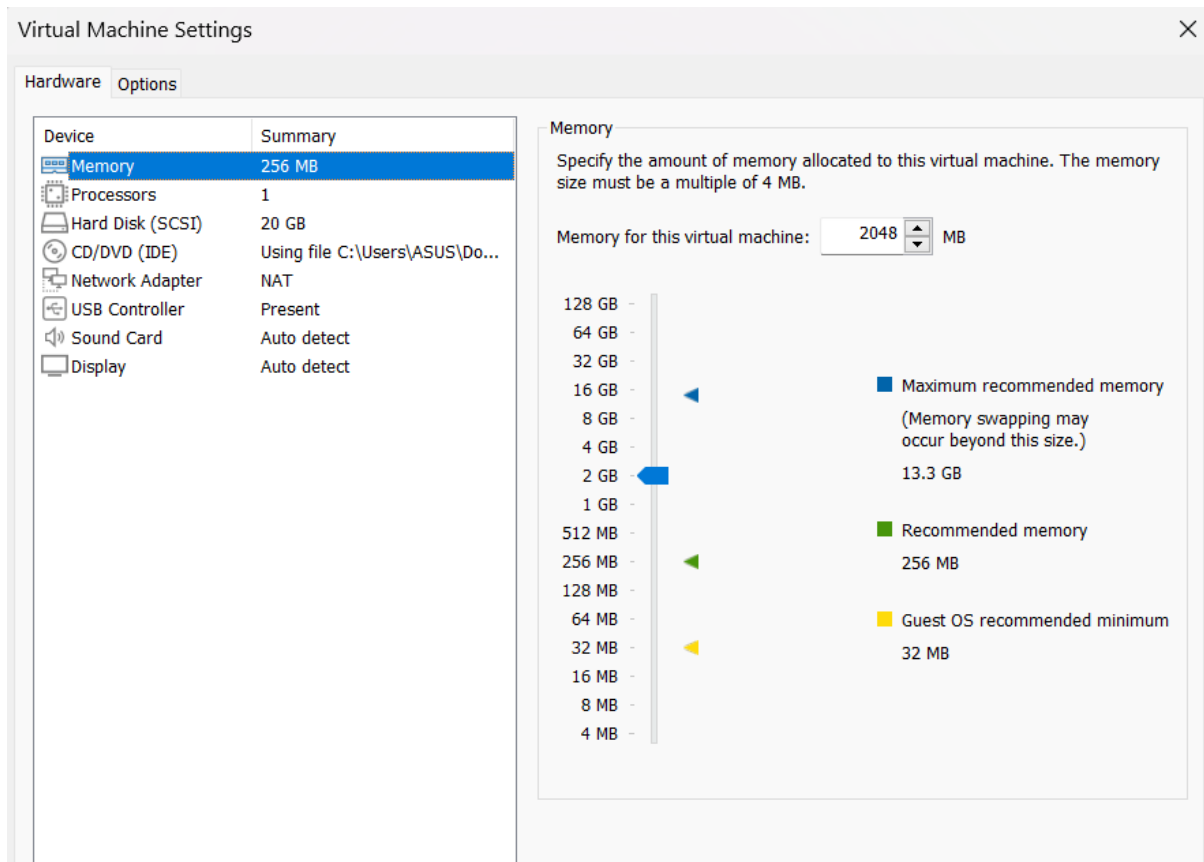


CLICK ON OPEN A VIRTUAL MACHINE . AND LOCATE THE FILE WHERE VIRTUAL MACHINES FOLDER IS CREATED .

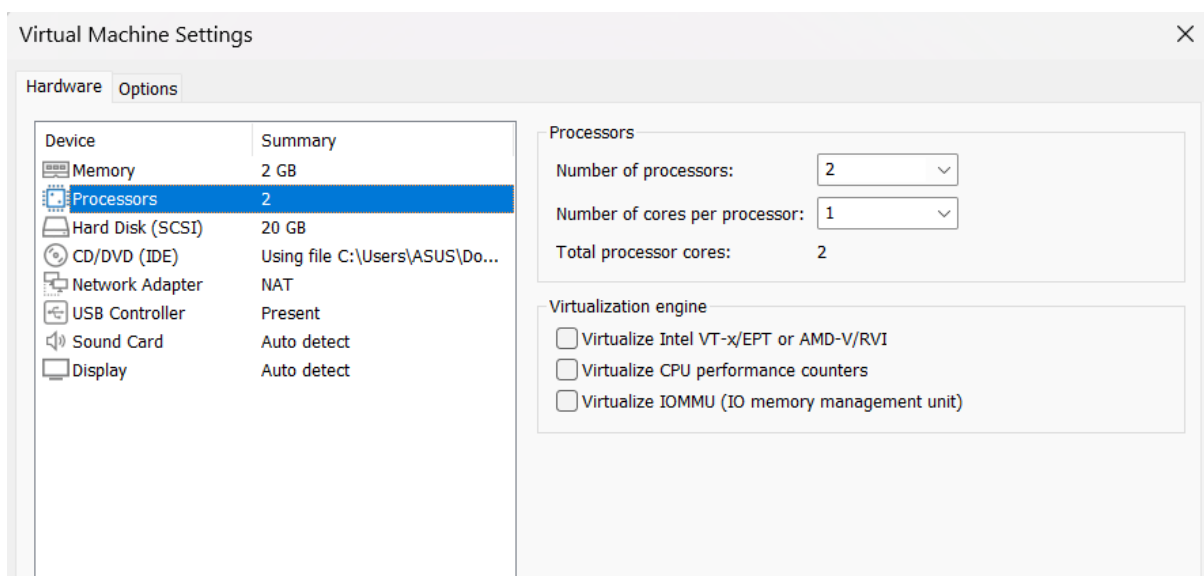




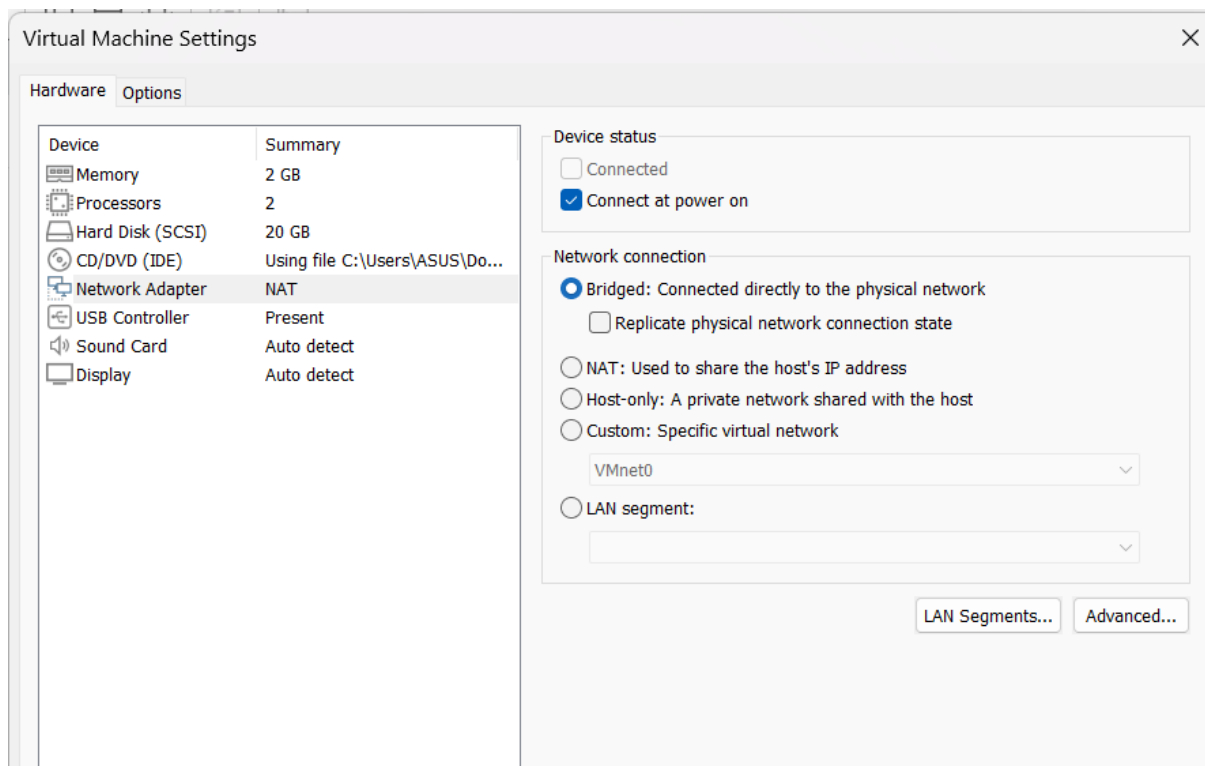
NOW WE ARE BACK TO OUR SYSTEM . NOW WE WILL CHANGE THE SYSTEM REQUIREMENT , SO CLICK ON EDIT VIRTUAL MACHINE SETTINGS.



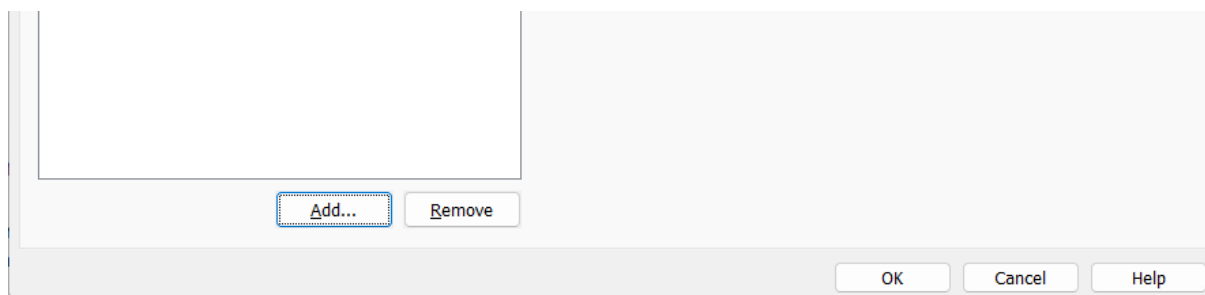
MAKE THE RAM - 2 GB , AND PROCESSORS - 2



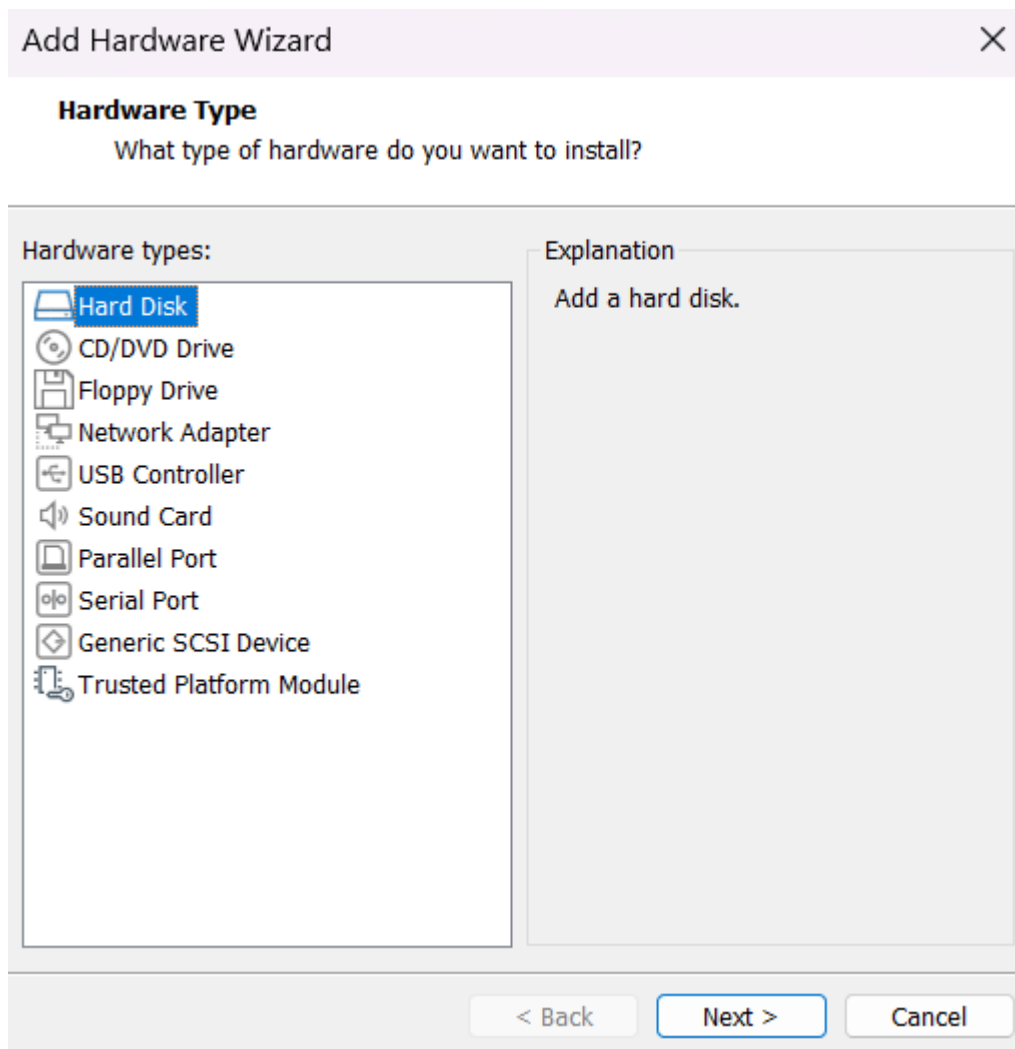
NOW GO TO NETWORK ADAPTER OPTION , THEN CHANGE THE OPTION FROM NAT TO BRIDGE NETWORK.



NOW OPEN THE EDIT OPTION AGAIN AND SEE DOWN YOU WILL GET ADD OPTION AND CLICK ON ADD.

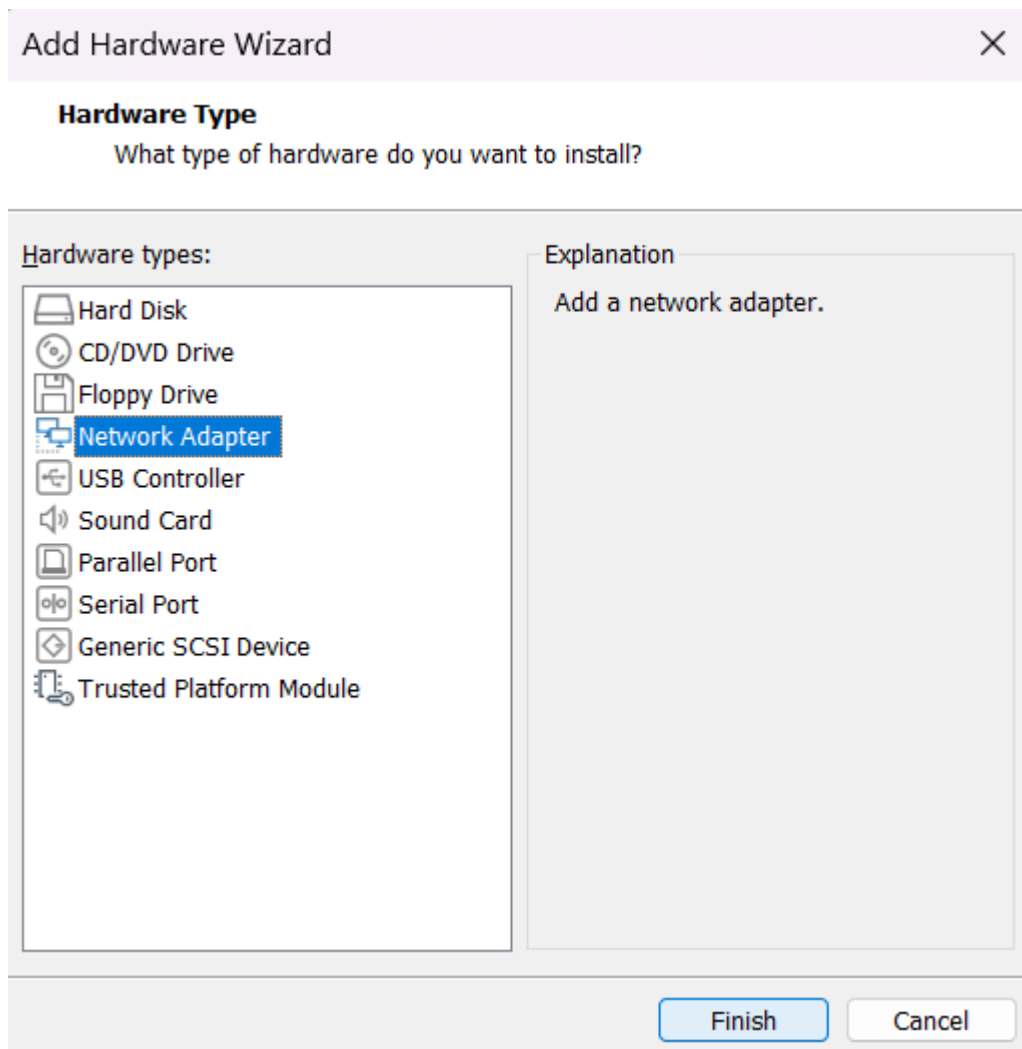


THEN YOU WILL GET A POP-UP OF ADD A HARDWARE WIZARD.

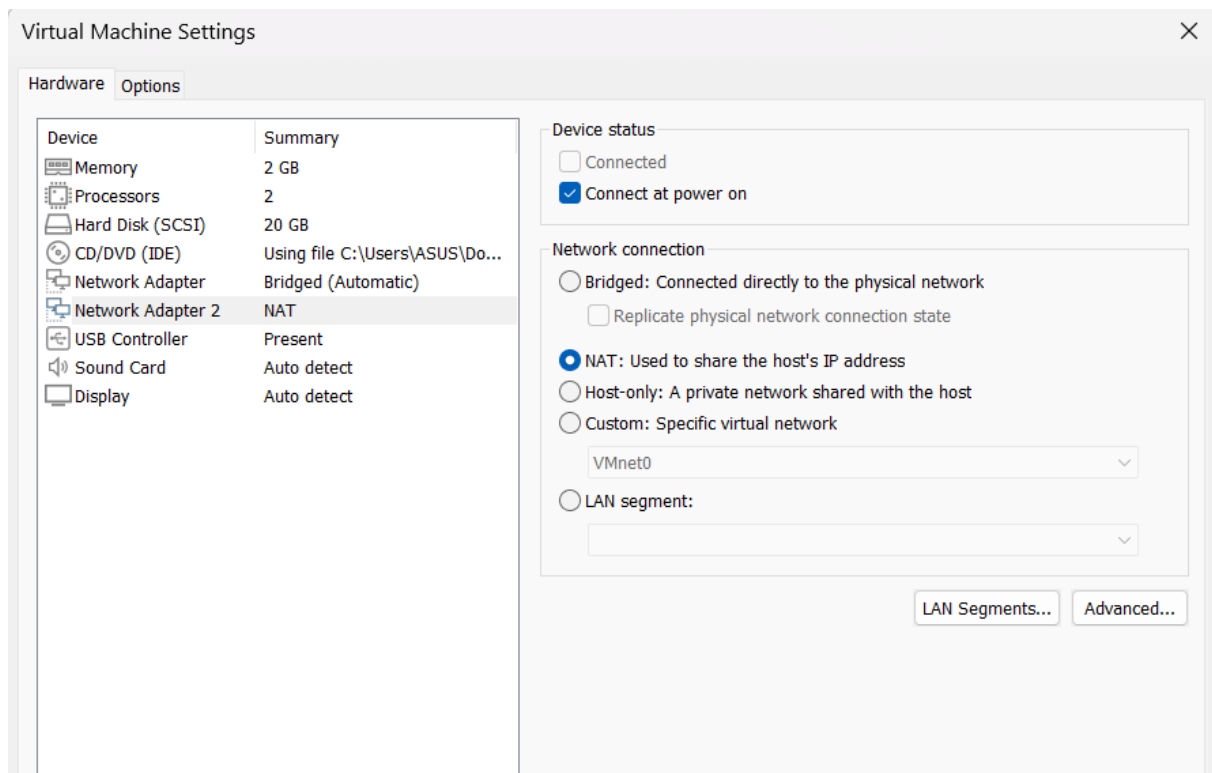


CHOOSE NETWORK ADAPTER AND CLICK FINISH.

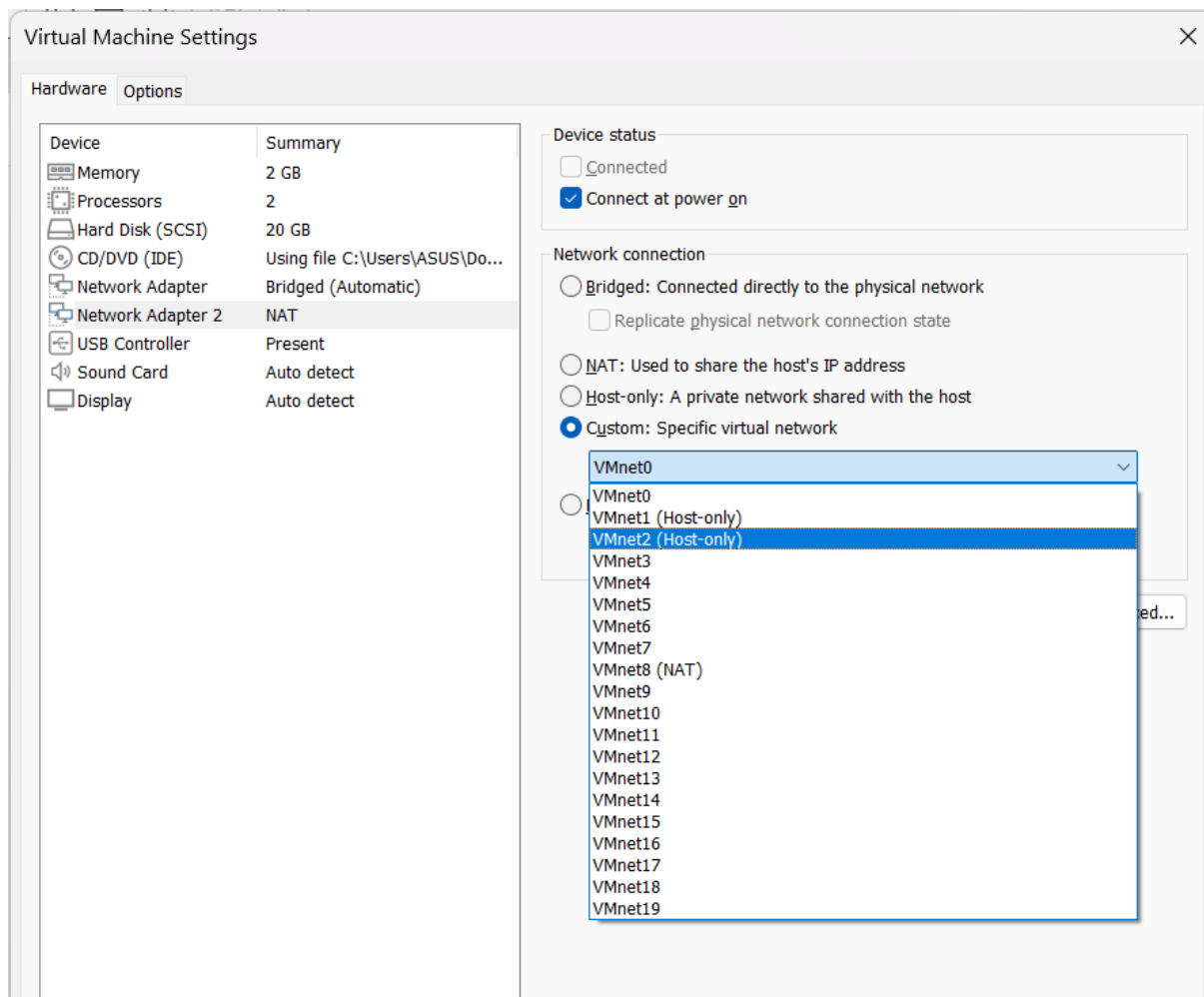




AND HERE YOU CAN SEE A NEW OPTION OF NAT 2 IS CREATED -



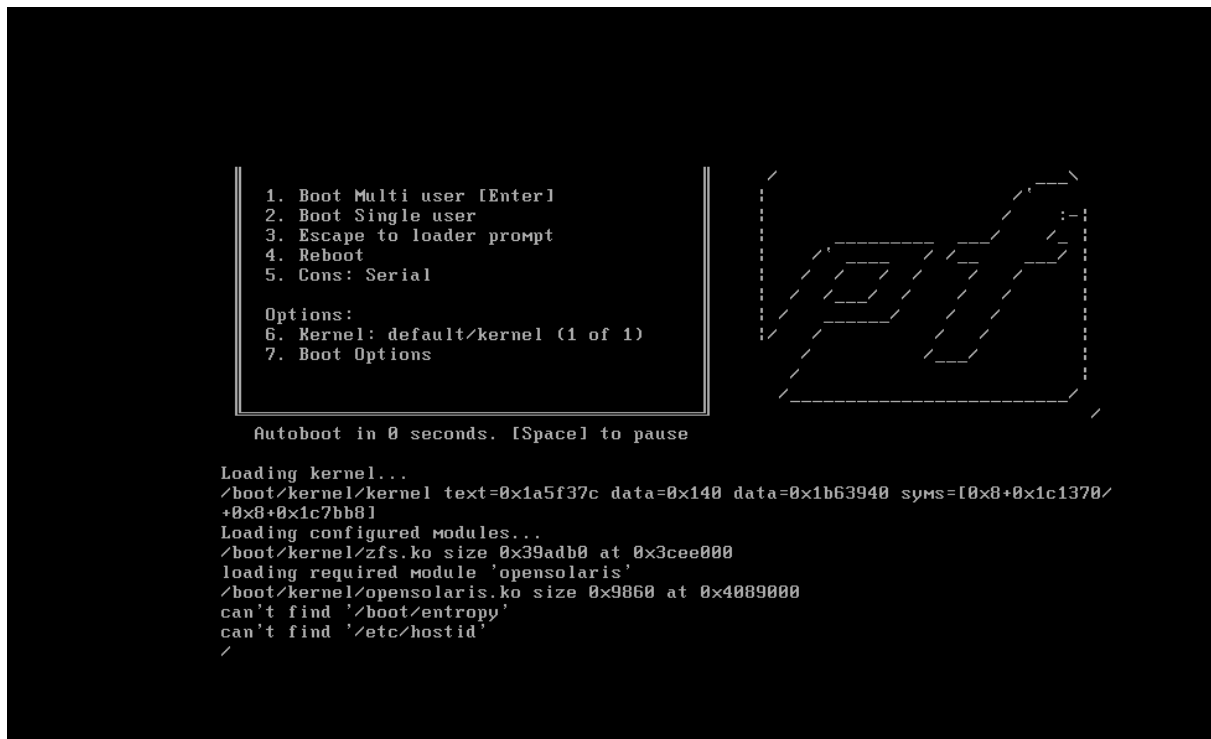
NOW IN THIS STEP CLICK ON CUSTOM OPTION AND SELECT THE SPECIFIC VM NETWORK WE HAVE CREATED .



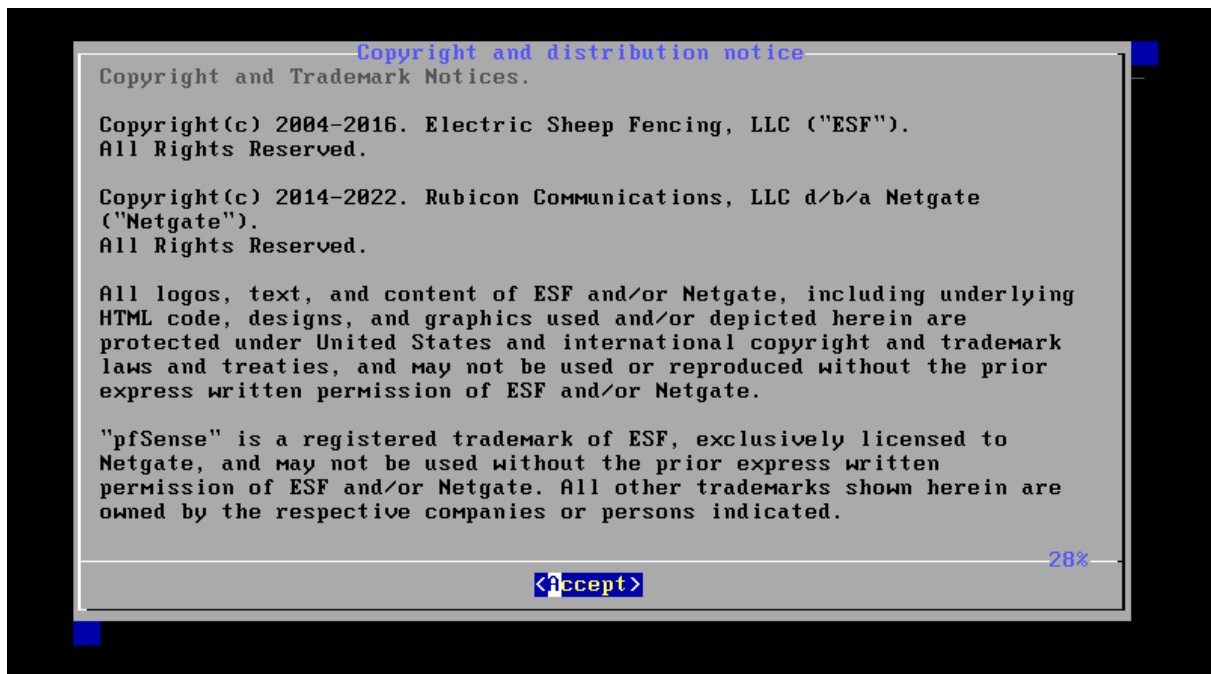
THEN CLICK OK AND START THE VIRTUAL MACHINE.

## NOW RUNNING AND CONFIGURING PFSENSE

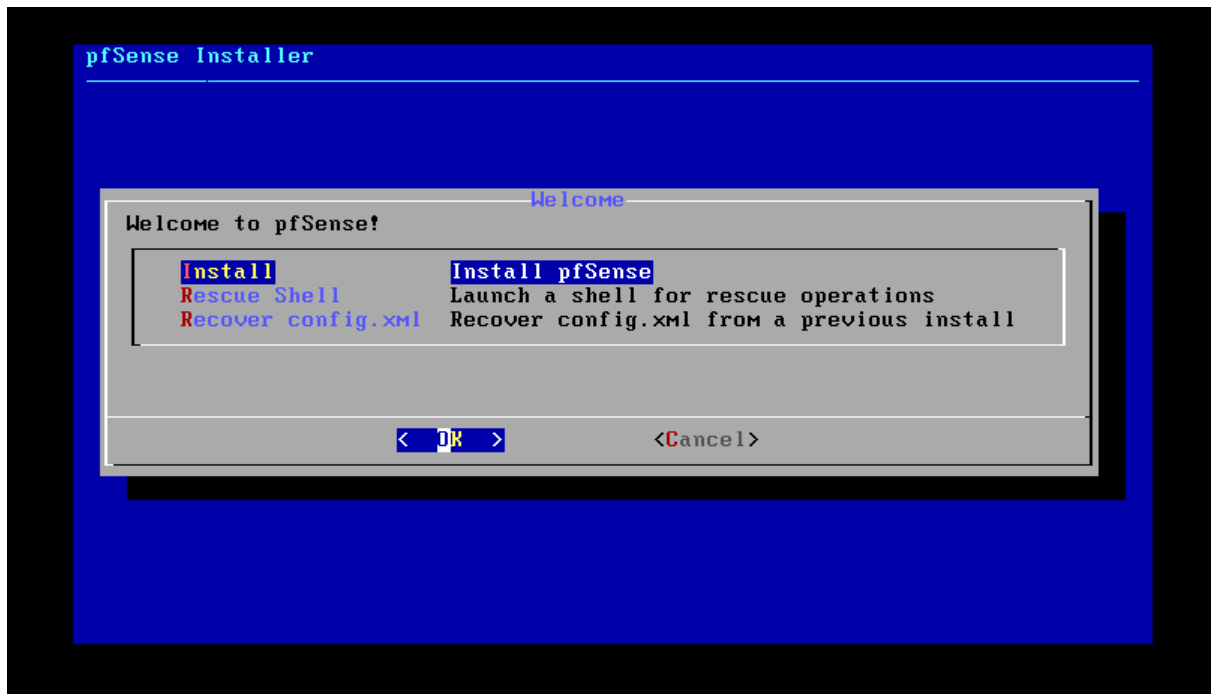
START THE VM -



THEN ACCEPT THE COPYRIGHT AND DISTRIBUTION NOTICE -



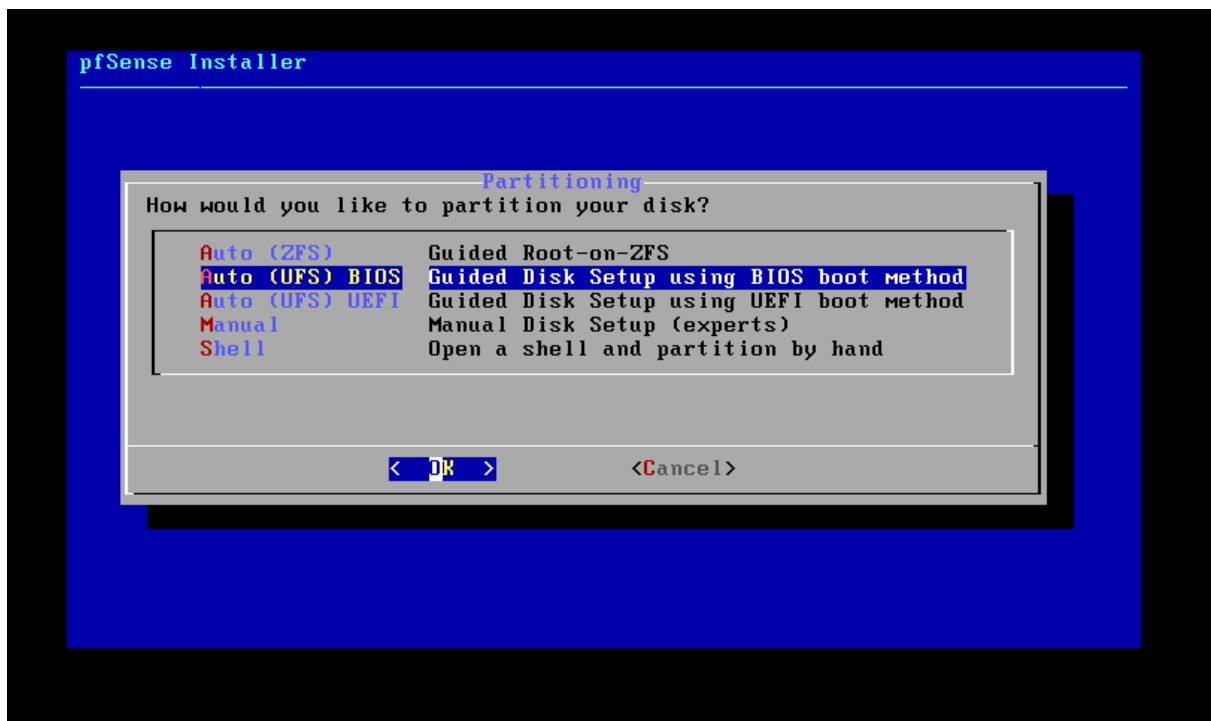
THEN CLICK ON INSTALL → OK



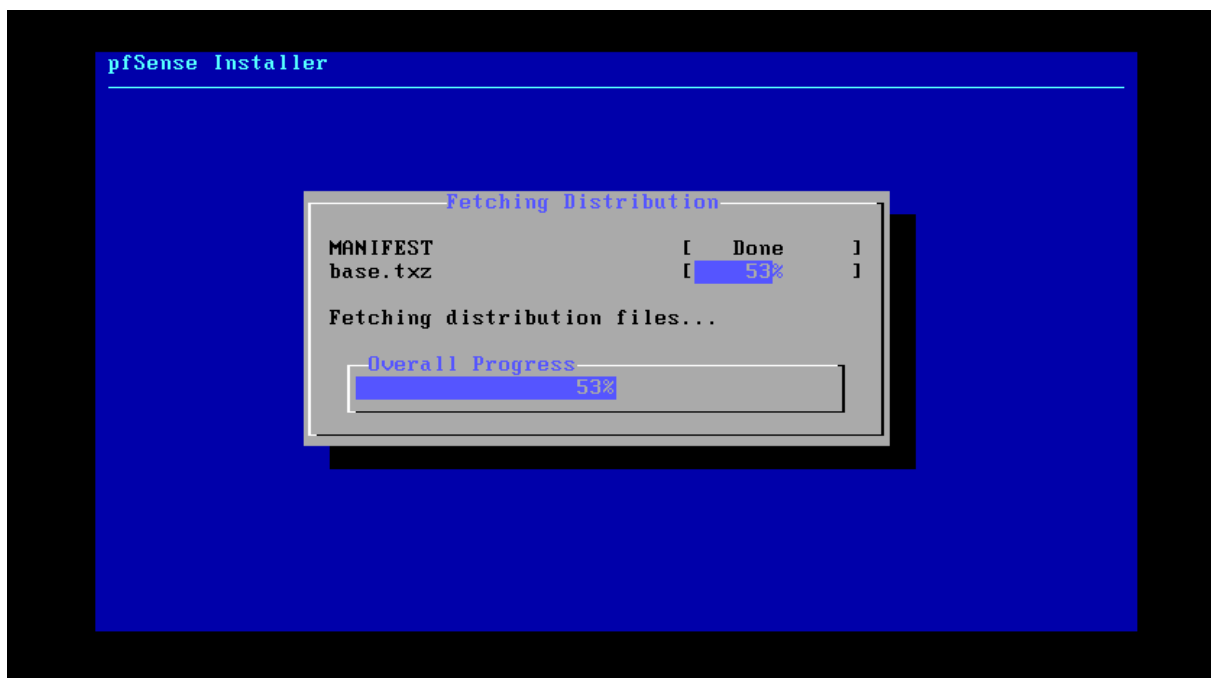
THEN ON THE NEXT POP-UP SELECT CONTINUE WITH DEFAULT KEYMAP.

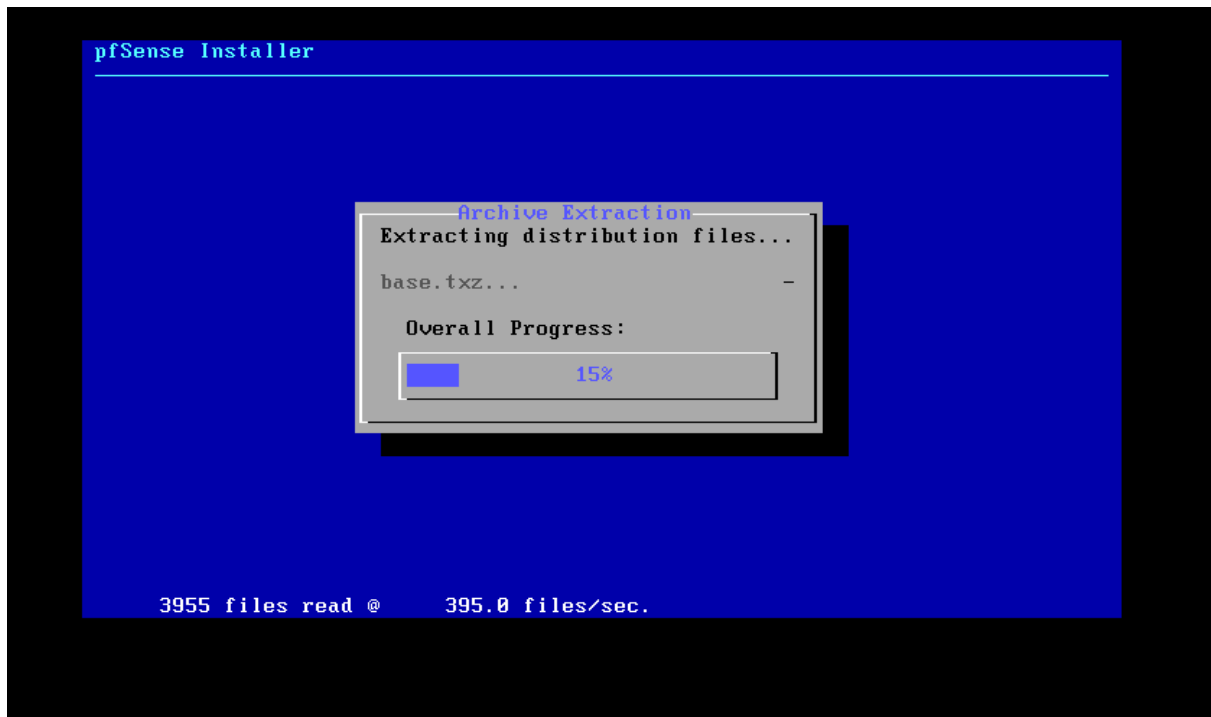


THEN CLICK OK ON THE OPTION → AUTO (UFS) GUIDED DISK SETUP USING BIOS BOOT METHOD.

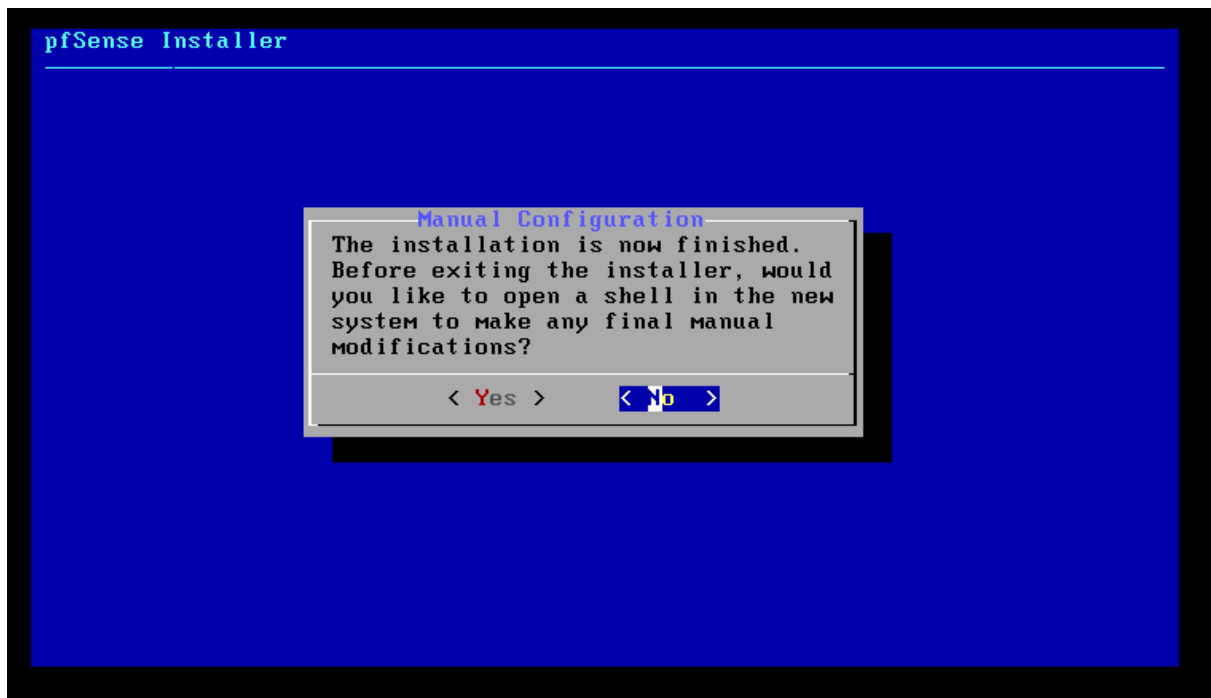


AND NOW IT WILL DO THE INSTALLATION -

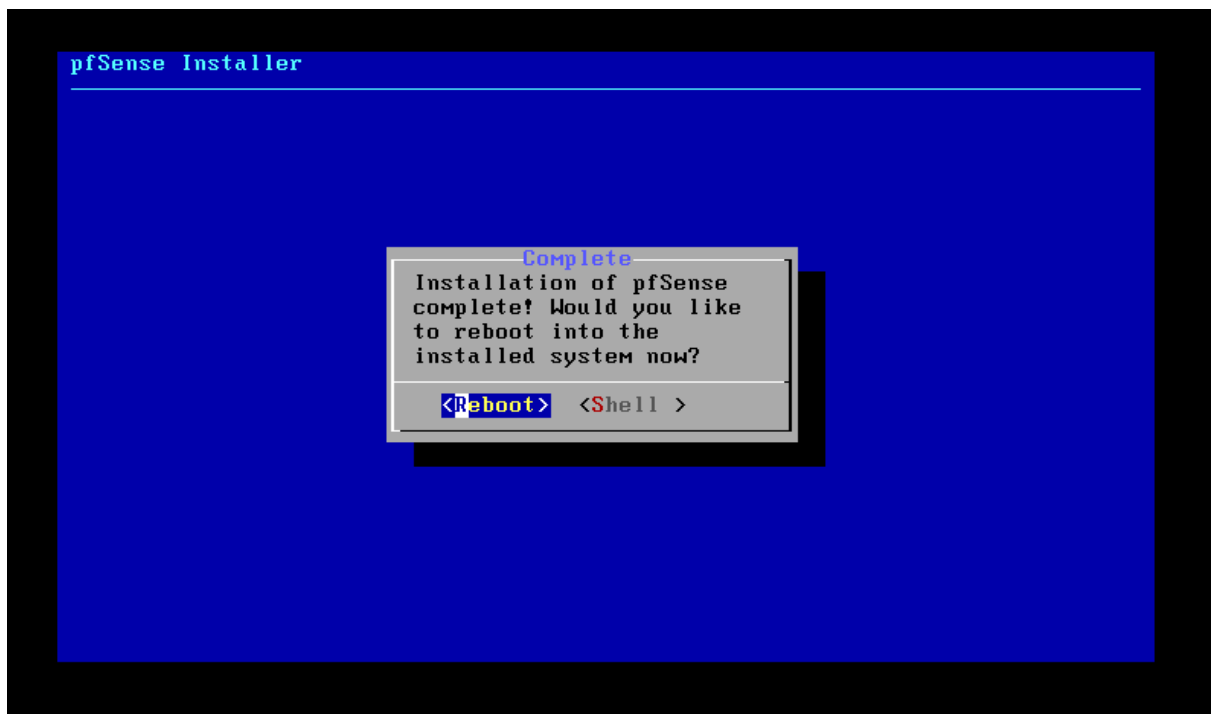




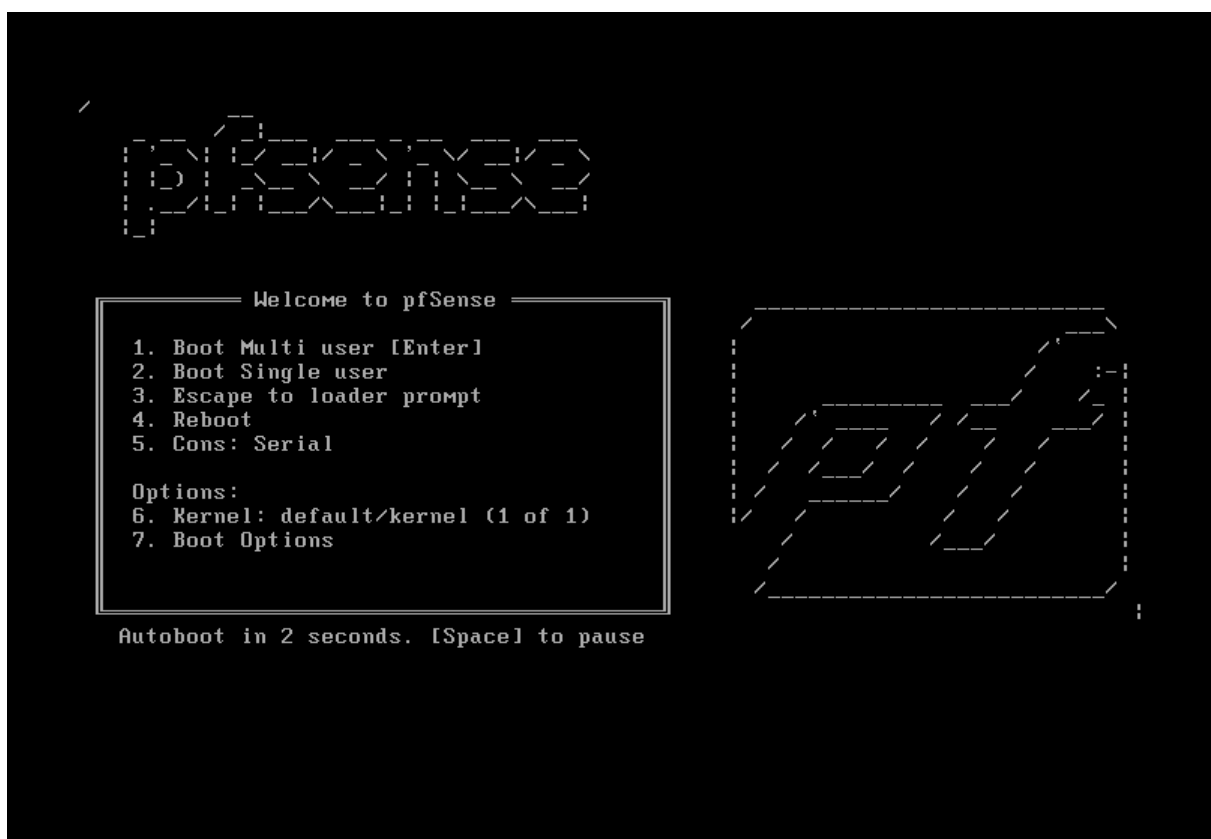
NOW CLICK ON NO → IN MANUAL CONFIGURATION



THEN CLICK ON REBOOT TO RESTART THE FULLY INSTALLED PFSENSE .



IT STARTED AGAIN LIKE THIS -





HERE GO -

```
pfSense 2.6.0-RELEASE amd64 Mon Jan 31 19:57:53 UTC 2022
Bootup complete

FreeBSD/amd64 (pfSense.home.arpa) (ttyv0)

VMware Virtual Machine - Netgate Device ID: d8c0d0dec65c28e2e5e2

*** Welcome to pfSense 2.6.0-RELEASE (amd64) on pfSense ***

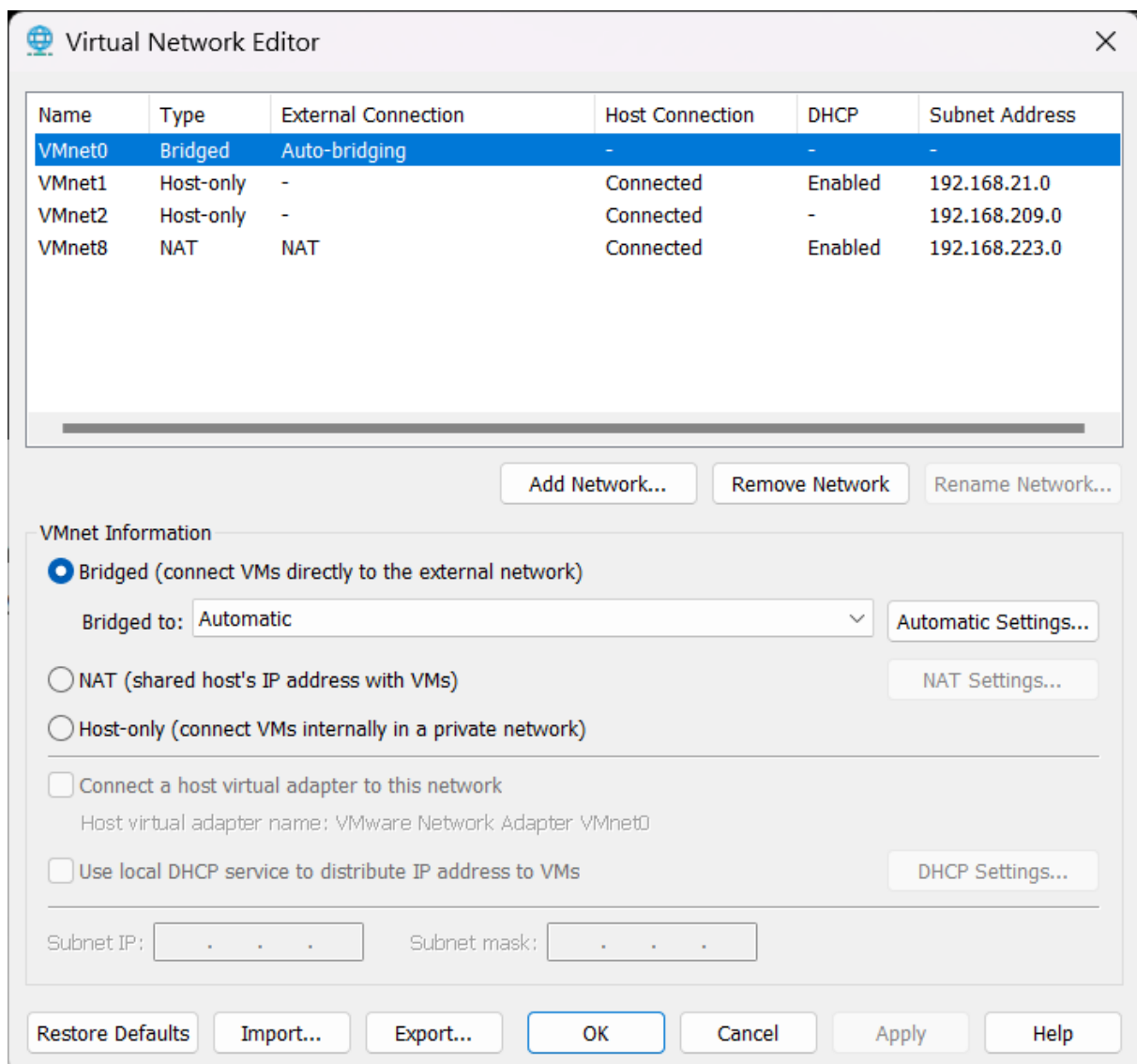
WAN (wan)      -> em0      -> v4/DHCP4: 192.168.43.32/24
                                v6/DHCP6: 2401:4900:7163:ba65:20c:29ff:fe12:e3
f6/64
LAN (lan)      -> em1      -> v4: 192.168.1.1/24

0) Logout (SSH only)          9) pfTop
1) Assign Interfaces          10) Filter Logs
2) Set interface(s) IP address 11) Restart webConfigurator
3) Reset webConfigurator password 12) PHP shell + pfSense tools
4) Reset to factory defaults  13) Update from console
5) Reboot system              14) Enable Secure Shell (sshd)
6) Halt system                 15) Restore recent configuration
7) Ping host                   16) Restart PHP-FPM
8) Shell

Enter an option: █
```

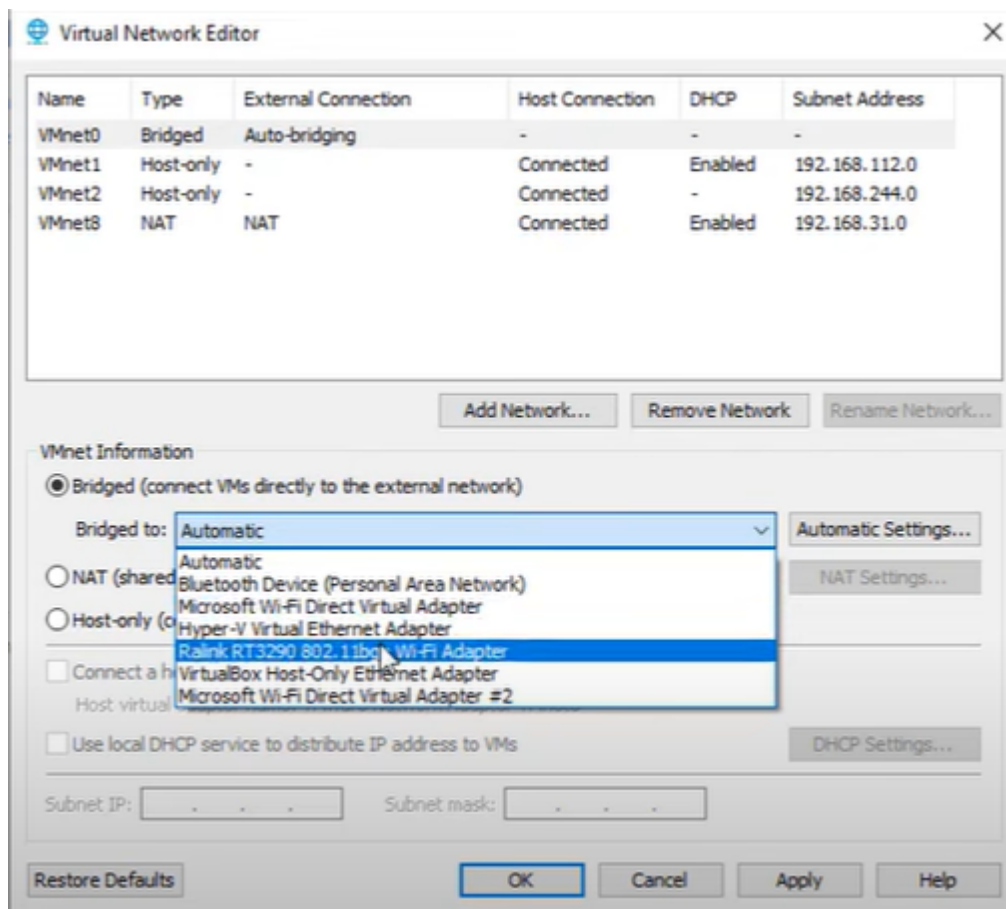
IF BOTH THE WAN AND LAN IP's ARE VISIBLE THEN IT IS GOOD . ONE THING IF YOU ARE USING YOUR PHONE INTERNET WITH HOTSPOT YOU WILL NOT FACE ANY ISSUE BUT IF YOU ARE USING ANY WIFI THEN CHANGE THE SETTINGS.

CHOOSE VMnet0 -



AND ON BRIDGE OPTION CHANGE FROM AUTOMATIC TO YOUR LINKED WIFI NAME

FOR EXAMPLE -



THEN CLICK APPLY AND THIS WILL SOLVE THE PROBLEM.

## CHECKING THE PFSENSE FIREWALL

NOW TO CHECK IF THE PFSENSE IS WORKING I WILL USE THE GIVEN OPTIONS ON THE PFSENSE -

```

FreeBSD/amd64 (pfSense.home.arp) (ttyv0)

VMware Virtual Machine - Netgate Device ID: d8c0d0dec65c28e2e5e2

*** Welcome to pfSense 2.6.0-RELEASE (amd64) on pfSense ***

WAN (wan)          -> em0          -> v4/DHCP4: 192.168.43.32/24
                                      v6/DHCP6: 2401:4900:7163:ba65:20c:29ff:fe12:e3
f6/64
LAN (lan)          -> em1          -> v4: 192.168.1.1/24

0) Logout (SSH only)          9) pfTop
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5) Reboot system              14) Enable Secure Shell (sshd)
6) Halt system                15) Restore recent configuration
7) Ping host                  16) Restart PHP-FPM
8) Shell

Enter an option: 7

Enter a host name or IP address: █

```

```

1) Assign Interfaces          10) Filter Logs
2) Set interface(s) IP address 11) Restart webConfigurator
3) Reset webConfigurator password 12) PHP shell + pfSense tools
4) Reset to factory defaults 13) Update from console
5) Reboot system              14) Enable Secure Shell (sshd)
6) Halt system                15) Restore recent configuration
7) Ping host                  16) Restart PHP-FPM
8) Shell

Enter an option: 7

Enter a host name or IP address: www.google.com

PING www.google.com (216.58.196.164): 56 data bytes
64 bytes from 216.58.196.164: icmp_seq=0 ttl=117 time=48.251 ms
64 bytes from 216.58.196.164: icmp_seq=1 ttl=117 time=87.140 ms
64 bytes from 216.58.196.164: icmp_seq=2 ttl=117 time=86.443 ms

--- www.google.com ping statistics ---
3 packets transmitted, 3 packets received, 0.0% packet loss
round-trip min/avg/max/stddev = 48.251/73.945/87.140/18.170 ms

Press ENTER to continue.
█

```

AS YOU CAN SEE USING HOST NAME LIKE - [www.google.com](http://www.google.com)  
IT SENDED THE PING PACKETS TO THE HOST IT IS WORKING.

FOR YOUR CONVENIENCE IF YOU WANT YOU CAN USE ALL THE 16 GIVEN OPTIONS.