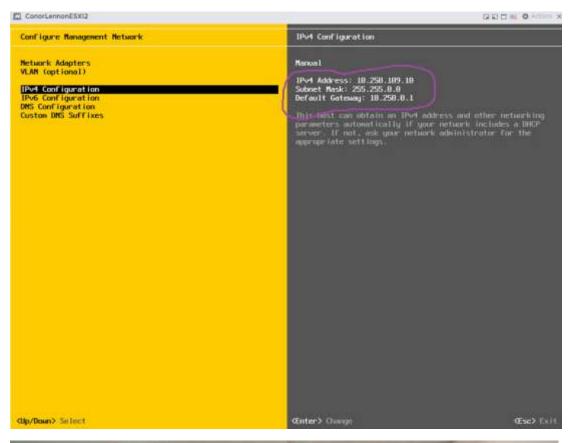
ESXI Hypervisor

23rd December 2024





Background:

In December of 2024 I was set out to create and set up a type 1 Hypervisor to run a virtual machine on. For this task I was set out to create an ESXI hypervisor and create two virtual machines to create a virtual network using VMware ESXI.

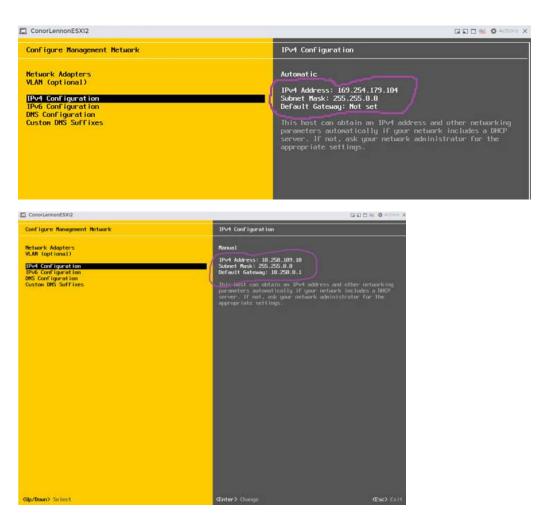
Setting up the ESXI BIOS:



When starting up Esxi, I had to start with booting up the bios for it, I started with setting up the UEFI, I done this by starting of with accessing the legacy boot with selecting the Adata ssd sx900 512GB dl2.



I created a root password that only the administrator can use. This will help to make the ESXI machine only be able to be configured by the administrator and this will help to keep it secure.



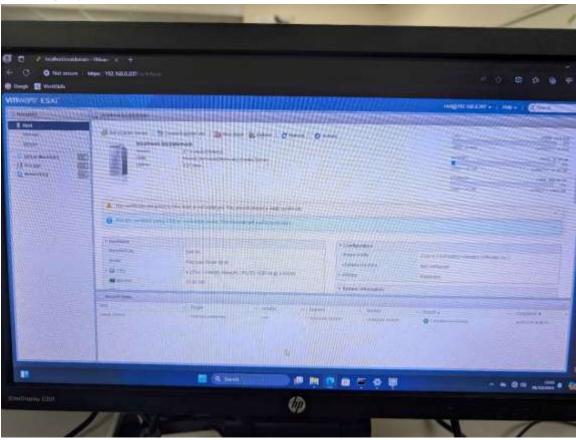
In the network configuration settings of ESXI, the default configuration settings were based of the original machine that it was set up on, however I wanted to change that to match the new machine that I will be setting my ESXI virtual machines on.

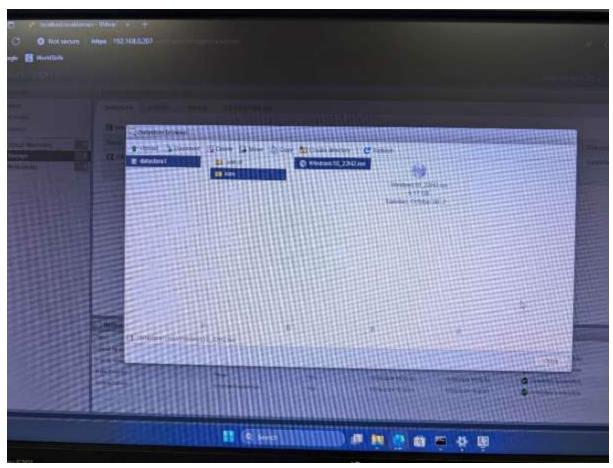
I changed the IPv4 address, Subnet Mask, and the Default Gateway to be the network settings I wanted to host my network on. All virtual machines will use the same Subnet Mask and Default Gateway to connect to each other and have their own unique IPv4 address so it will ne unique and easy to identify which device is which on the network.



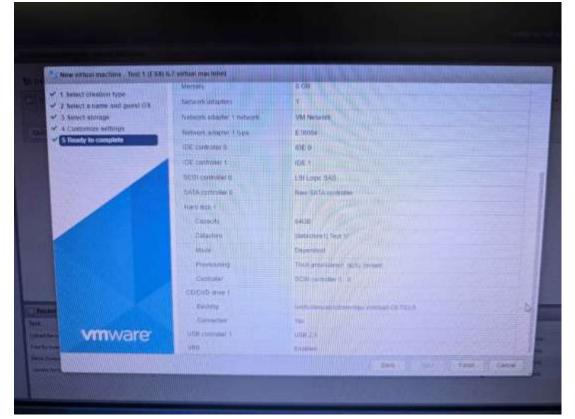
Once the machine loads with the ESXI BIOS settings done, you can see from the screenshot that the IP Address that I created from the other screenshots has been set up correctly. I went into the terminal to try and ping the IP Address to test the connection of the of the network. I tried pinging the IP Address and I got a reply from the ping which showed that the network is configured properly and works.

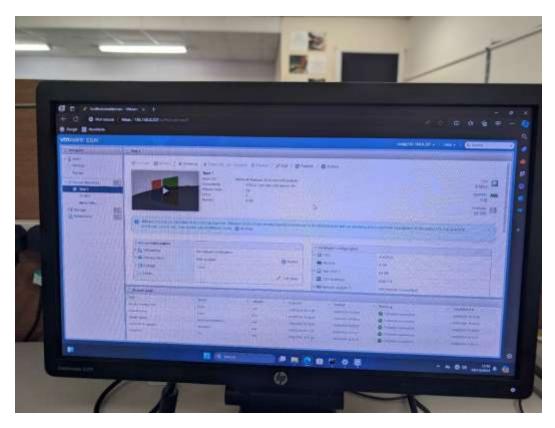
Setting up VMware:



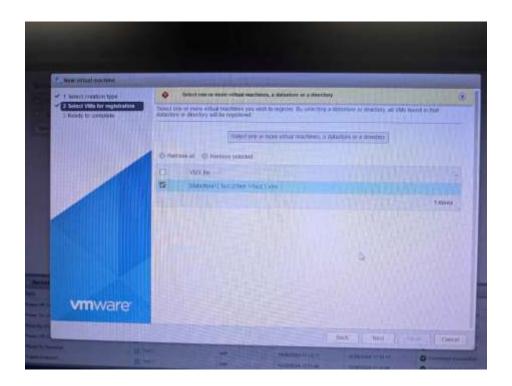


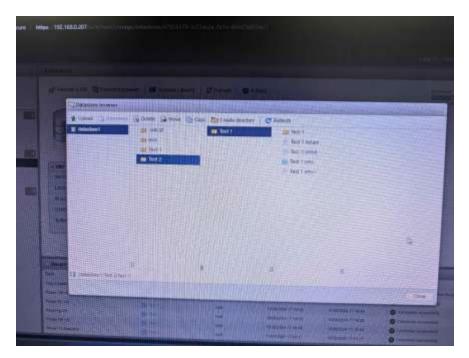


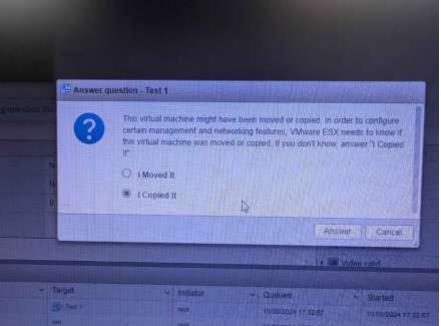




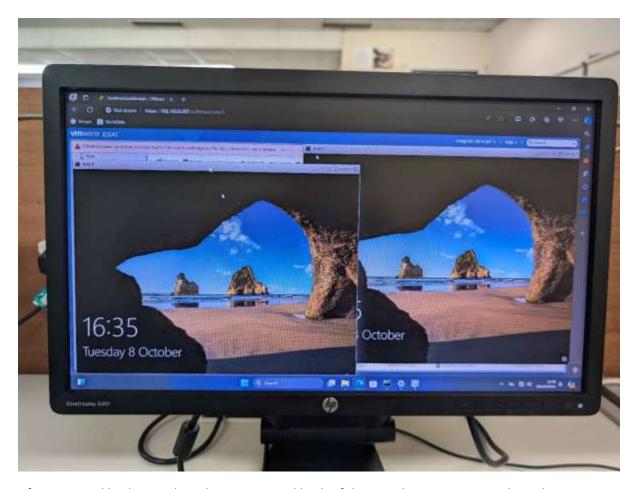
I logged onto VMware and afterwards I used VMware to create my virtual machines and giving them a percentage of the physical hardware to use as a virtual machine part for the virtual machine to run off. I gave each machine a Windows 10 iso file for it to use as its operating system. As you can see in this screenshot the virtual machine has been set up with its own virtual hardware.







After I made my first virtual machine, I wanted to make another to try and clone it to see I can copy my first virtual machine and clone its data from it. I used the same files as the first machine and copied it into the folder of the new virtual machine, and once I done that it gave me the option to either move the machine files into the new one and delete the old one or just copy the files over. I done this so that I would have a back up of the files from the virtual machine in case it got corrupted so that I would have back up off all data from it so that I didn't lose it.



After I created both virtual machines, I opened both of them at the same time to show that creating both are successfully created and that I can use both of them at the same time.