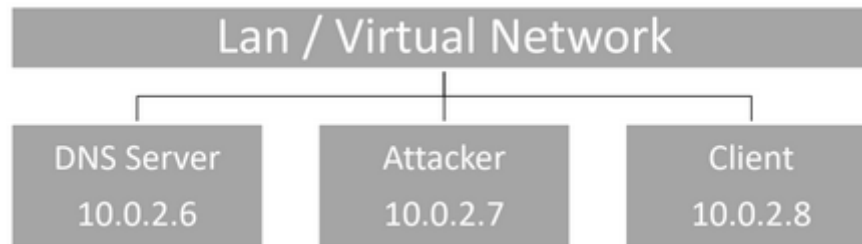


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Cyber Security Lab Environment Setup

Lab topology

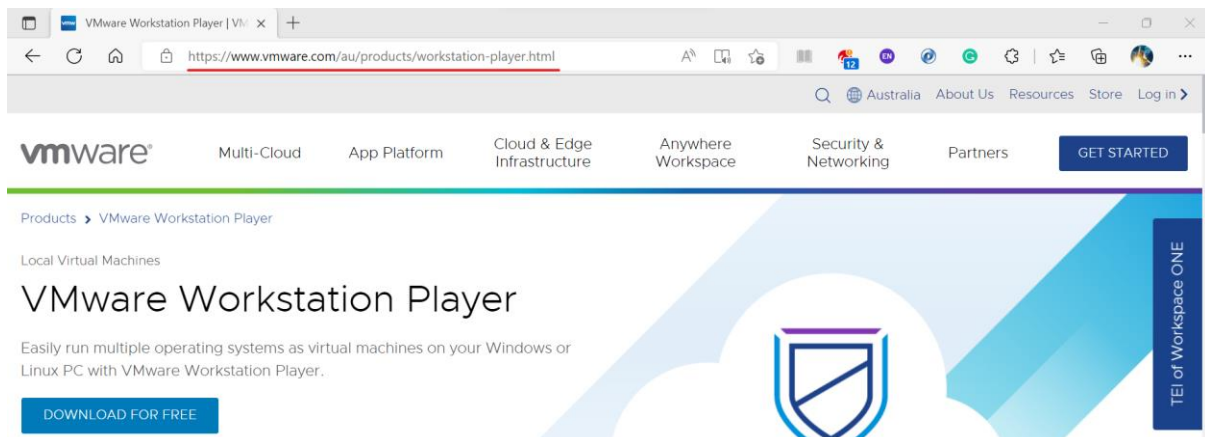
We are going to use Virtual Machines to do most of our labs, the three VMs are prefigured with IP address in network 10.0.2.0/24.



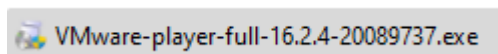
Lab set up

Step 1: Check your host machine has at least 8GB/16GB RAM or more since the VMware software will need memory to use. (Skip this step if you use Lab machine)

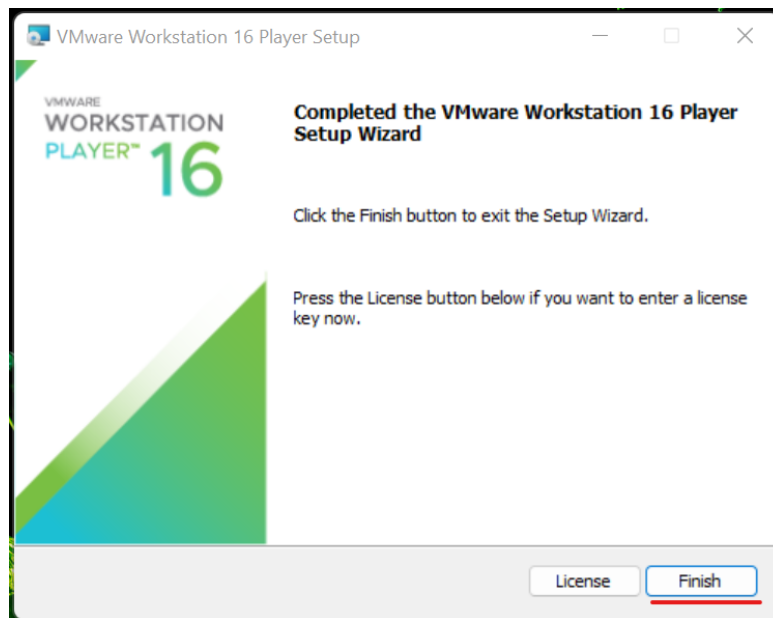
Step2: Download VMware Workstation player -> [Link](https://www.vmware.com/au/products/workstation-player.html), please be aware the download from UTS software is not available now.



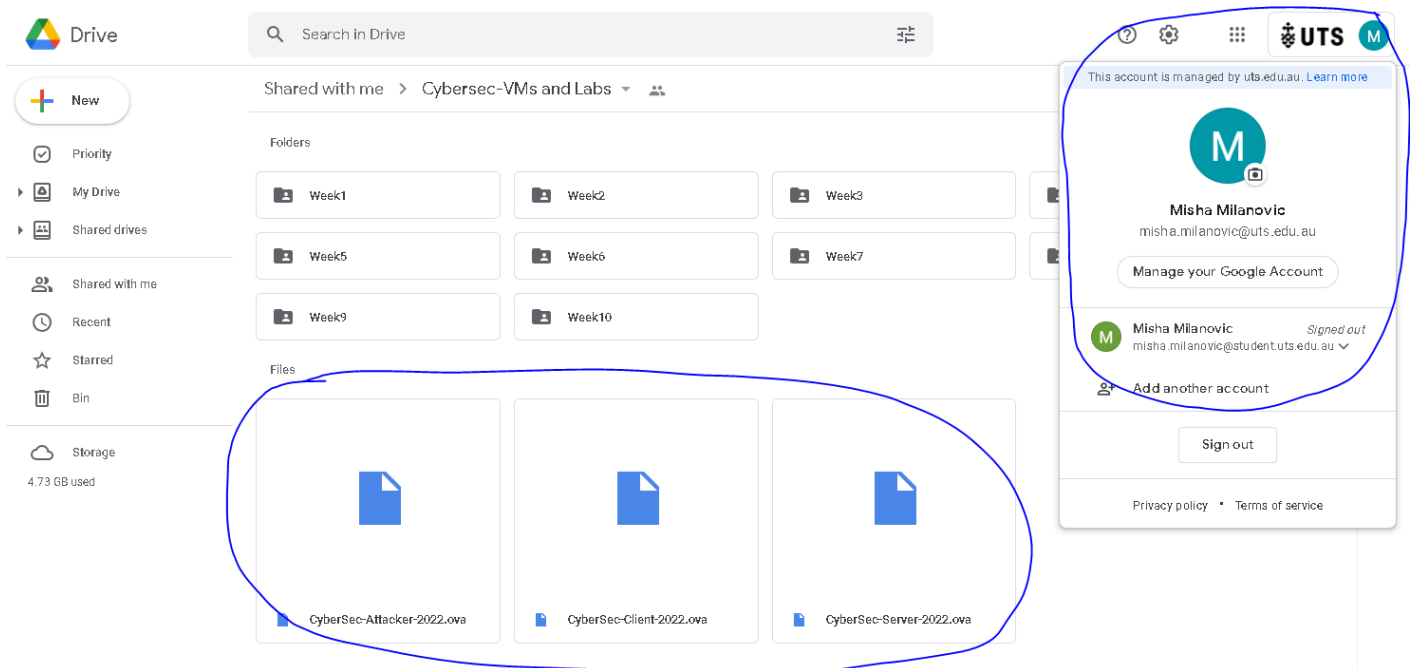
Step3: double click the downloaded file to install VMware player.



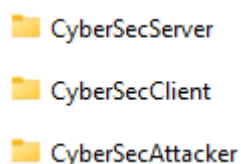
We have no license, so just click “Finish” to finish the installation.



Step4: To Download the Virtual Machine images and lab manuals **login into Google Drive using your UTS account.** Secondly access this --> [Google Drive Link](#) --> Inside there are three VM (.ova) files required for the lab. You will also see folders that have the weekly lab materials inside of them.

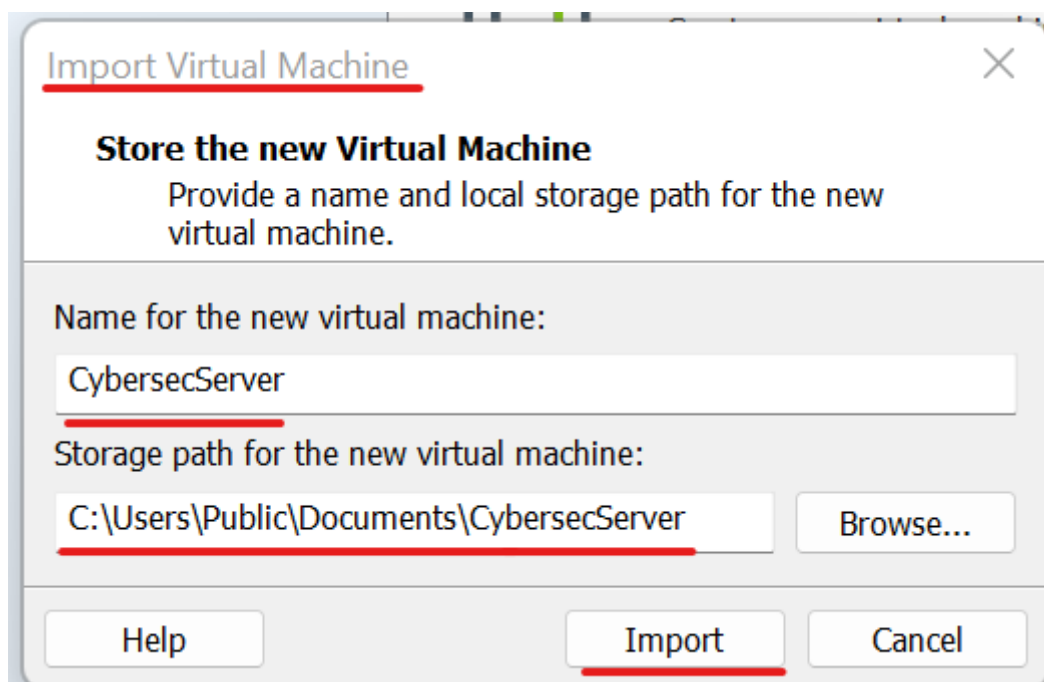
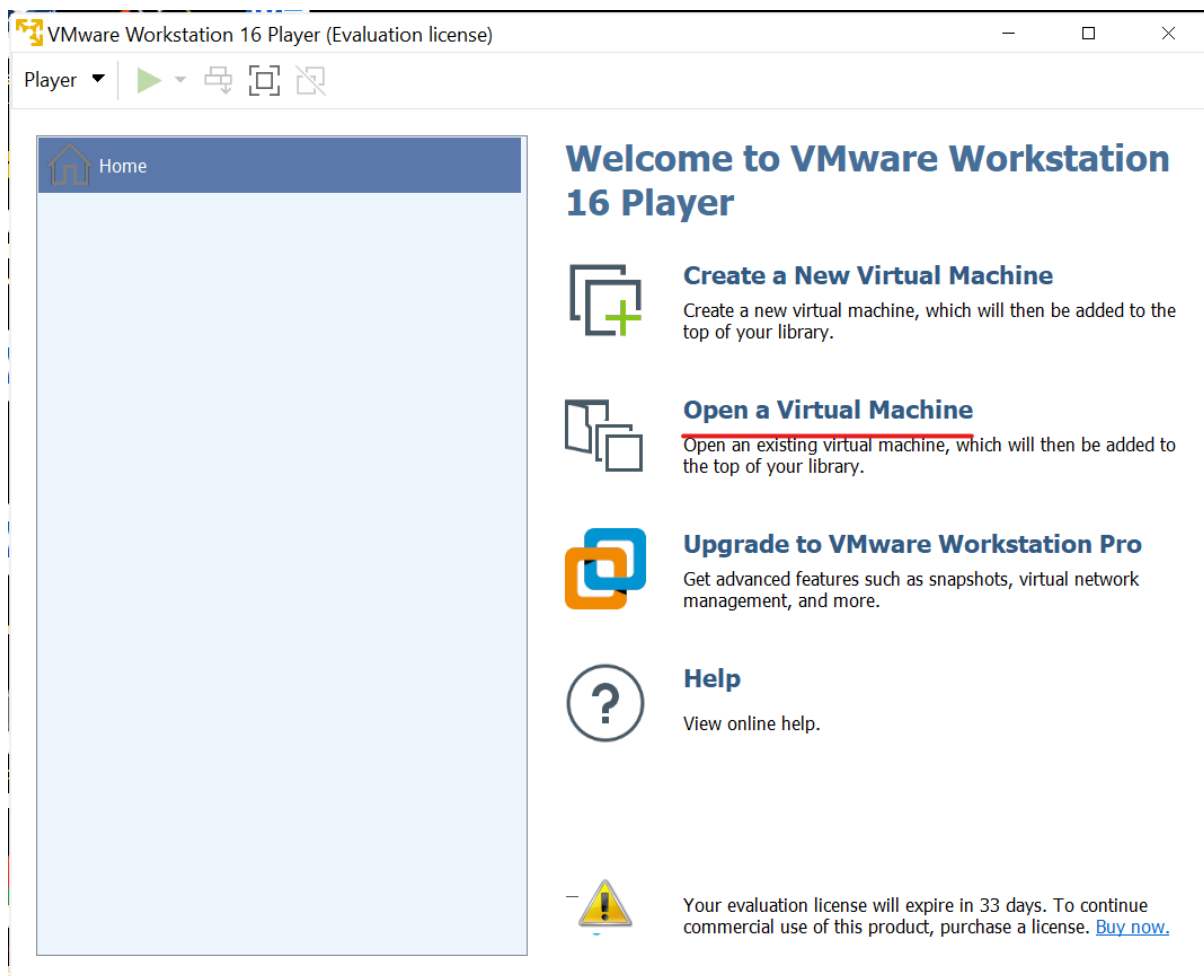


Step5: Create “CybersecServer”, “CybersecClient” and “CybersecAttacker” directory in the location which you want your VMs are.



Step6: Open VMware Workstation Player, click “Open a Virtual Machine”, then choose “CybersecServer.ova” you just downloaded, an import Virtual machine window will open. Enter the machine’s name and storage path of the new virtual machine using the folder you created in step5, then click “import”.

Note: The process can take couple of minutes. As we use the free version of the VMware player, we have to open another VMware player to import other images and the “take snapshot” function is not available for the free version.



After import, you will find out the virtual machine disk files in the folder.

- CybersecServer.vmx.lck
- CybersecServer.vmsd
- CybersecServer.vmx
- CybersecServer.vmxfs
- CybersecServer-disk1.vmdk

Step7: Do the same for CyberSec Client and CyberSec Attacker, be sure to import the images in corresponding folder. Start and log in to each VM.

Username:CyberSec

Password: cybersec (all in lower case)



Step8: Test connectivity

```
cybersec-server@ubuntu: ~  
cybersec-server@ubuntu:~$ ping -c 4 10.0.2.8  
PING 10.0.2.8 (10.0.2.8) 56(84) bytes of data.  
64 bytes from 10.0.2.8: icmp_seq=1 ttl=64 time=0.575 ms  
64 bytes from 10.0.2.8: icmp_seq=2 ttl=64 time=0.764 ms  
64 bytes from 10.0.2.8: icmp_seq=3 ttl=64 time=0.827 ms  
64 bytes from 10.0.2.8: icmp_seq=4 ttl=64 time=0.526 ms  
  
--- 10.0.2.8 ping statistics ---  
4 packets transmitted, 4 received, 0% packet loss, time 3001ms  
rtt min/avg/max/mdev = 0.526/0.673/0.827/0.125 ms  
cybersec-server@ubuntu:~$ ping -c 4 10.0.2.7  
PING 10.0.2.7 (10.0.2.7) 56(84) bytes of data.  
64 bytes from 10.0.2.7: icmp_seq=1 ttl=64 time=0.508 ms  
64 bytes from 10.0.2.7: icmp_seq=2 ttl=64 time=0.876 ms  
64 bytes from 10.0.2.7: icmp_seq=3 ttl=64 time=0.551 ms  
64 bytes from 10.0.2.7: icmp_seq=4 ttl=64 time=0.662 ms  
  
--- 10.0.2.7 ping statistics ---  
4 packets transmitted, 4 received, 0% packet loss, time 3000ms  
rtt min/avg/max/mdev = 0.508/0.649/0.876/0.143 ms  
cybersec-server@ubuntu:~$
```

Well done, you have set up the lab environment, can go through each folder in the shared drive to get idea of each week's lab.