


I. Installing ESXi

- A. Review your [Super-Micro assignments](#)
- B. Plug a ESXi installer USB into your Super
- C. Access your Super via a browser using the IPMI IP Address
- D. IPMI username is: cncs-sysadmin. Password will be emailed to you
- E. Use the iKVM for the install - F11 allows you to boot to USB
- F. Select **smaller** drive to install to
- G. Mostly defaults during installation
- H. Grab your DHCP IP
- I. Configure with your static IP and DNS




II. Configuring Datastores

- A. Access VSphere via web (**Deliverable 1**)
- B. Add/Rename datastores so that they are “datastore1-superX” and “datastore2-superX” where X is your super # (**Deliverable 2**)
- C. Create an ISO folder in Datastore 2
- D. Upload xubuntu and pfsense ISOs from Cyber-Share X:

III. Create VSwitch

- A.  vSwitch.pdf (**Deliverable 3**)

IV. Create pFSense Firewall and LAN Management workstation

- A. Start the pfSense VM install ( pf.pdf)
- B. Create Management VM ( mgmt1.pdf)
- C. Complete pfSense VM configuration  pf.pdf
- D. **Deliverable 4**

V. Make sure that your Tech Journal is Awesome

User	Pass
cncs-sysadmin	Email - Starred
root	Hint: DAD

Student	Hyper Visor	IPMI	ESXi	pf-350 x eth0	vyos- 350x eth1	xubu ntu-w an	vcen ter-3 50x	dc1	vcenter license	vsphere license
David Thomsen	super 16	192.1 68.7.6 1	192.1 68.7.2 6	192.16 8.7.86	10.0.1 7.2	10.0.1 7.100	10.0. 17.3	10.0.17. 4		

Deliverables

1. Screenshot showing login via superX.cyber.local where X is your assign host number

The screenshot displays the VMware ESXi Host Client interface for the host `localhost.localdomain`. The browser address bar shows `https://192.168.7.26/ui/#/host`. The interface includes a left sidebar with navigation options: Host, Virtual Machines, Storage, and Networking. The main content area shows the host's status and configuration details.

Host Details:

- Version: 8.0.0
- State: Normal (not connected to any vCenter Server)
- Uptime: 0.01 days

Resource Usage:

- CPU:** FREE: 8.8 GHz, USED: 41 MHz, CAPACITY: 8.8 GHz
- MEMORY:** FREE: 61.6 GB, USED: 2.3 GB, CAPACITY: 63.9 GB
- STORAGE:** FREE: 430.36 GB, USED: 383.89 GB, CAPACITY: 814.25 GB

Configuration and System Information:

- Hardware:** Manufacturer: Supermicro, Model: Super Server, CPU: 4 CPUs x Intel(R) Xeon(R) CPU D-1518 @ 2.20GHz, Memory: 63.9 GB, Virtual flash: 3.45 GB used, 119.75 GB capacity.
- Configuration:** Image profile: ESXi-8.0.0-20513097-standard (VMware, Inc.), vSphere HA state: Not configured, vMotion: Supported.
- System Information:** Date/time on host: Friday, September 01, 2023, 15:49:23 UTC, Install date: Friday, September 01, 2023, 15:29:40 UTC, Asset tag: To Be Filled By O.E.M.

Recent tasks:

Task	Target	Initiator	Queued	Started	Result	Completed
Update Options	localhost.localdomain	root	09/01/2023 11:49:25	09/01/2023 11:49:25	Completed successfully	09/01/2023 11:49:25
Refresh Network System	localhost.localdomain	dcui	09/01/2023 11:41:08	09/01/2023 11:41:08	Completed successfully	09/01/2023 11:41:09
Auto Start Power On	localhost.localdomain	root	09/01/2023 11:40:14	09/01/2023 11:40:14	Completed successfully	09/01/2023 11:40:14

2. Screenshot showing your two datastores, where the second one has a directory of two iso files

localhost.localdomain - Storage

Datastores

Adapters

Devices

Persistent Memory

+ New datastore

+ Increase capacity

Register a VM

Datastore browser

Refresh

Actions

Search

Name	Drive Type	Capacity	Provisioned	Free	Type	Thin provisioning	Access
datastore1	SSD	337.5 GB	1.41 GB	336.09 GB	VMFS6	Supported	Single
datastore2-super16	SSD	476.75 GB	382.48 GB	94.27 GB	VMFS6	Supported	Single

2 items

datastore2-super16 - Monitor

Events

Previous page

Next page

10 per page

Refresh

Actions

Search

Event	Time	Type
File system [datastore1, 64f2045c-118dcc60-cccc-3cece4663da] on volume 64f2045c-09cb4824-4bb9-3cece4663...	Friday, September 01, 202...	Info
File system [datastore2-super16, 63d14536-63a0d912-2eb1-3cece4663da] on volume 63d14536-588f96b6-dcd0-3c...	Friday, September 01, 202...	Info

2 items

3. Screenshot showing your virtual switch and associated port group

10

350-internal	0	0	Standard port group	350-internal	N/A
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4. Screenshot from your mgmt1 box showing your 10.0.17.0/24 address as well as your successful ping to an internet host

```
Terminal - champuser@mgmt1: ~/Desktop
File Edit View Terminal Tabs Help

champuser@mgmt1:~/Desktop$ ping google.com -c 1
PING google.com (142.250.80.78) 56(84) bytes of data.
64 bytes from lga34s35-in-f14.1e100.net (142.250.80.78): icmp_seq=1 ttl=54 time=16.3 ms

--- google.com ping statistics ---
1 packets transmitted, 1 received, 0% packet loss, time 0ms
rtt min/avg/max/mdev = 16.275/16.275/16.275/0.000 ms
champuser@mgmt1:~/Desktop$ ping 192.168.7.26 -c 1
PING 192.168.7.26 (192.168.7.26) 56(84) bytes of data.
64 bytes from 192.168.7.26: icmp_seq=1 ttl=63 time=0.412 ms

--- 192.168.7.26 ping statistics ---
1 packets transmitted, 1 received, 0% packet loss, time 0ms
rtt min/avg/max/mdev = 0.412/0.412/0.412/0.000 ms
champuser@mgmt1:~/Desktop$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: ens34: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc mq state UP group default qlen 1000
    link/ether 00:0c:29:53:b3:a5 brd ff:ff:ff:ff:ff:ff
    altname enp2s2
    inet 10.0.17.100/24 brd 10.0.17.255 scope global noprefixroute ens34
        valid_lft forever preferred_lft forever
    inet6 fe80::487a:e3c9:b9a0:d6d2/64 scope link noprefixroute
        valid_lft forever preferred_lft forever
```

5. The Journal. Your journal should be neat, organized and above all useful and complete. The resources above show the expectations for your journal. Remember the journal has both a technical aspect as well as a reflection component. This can be interweaved as shown in the example. One thing to keep in mind is where you struggled and where you spent your time and any tips and tricks for your future self. Provide a github link to a landing page of your course repo on github. Your milestone adventures should be easily navigated. Make sure you've invited agoldstein333 and rtgillen to your github page if private.