

CIS Networking

Installing Ubuntu Server on Windows hyper-v

Much of this information was stolen from <http://www.isummation.com/blog/installing-ubuntu-server-1104-64bit-on-hyper-v/>

Create a virtual machine at your assigned virtual server. Use the following specs

Name the Virtual Machine yourLastName_ubuntu

Assign 1300 MB of RAM

Connect the network card to the available virtual network

Create a virtual hard disk

Name leave default

Locate at s:\student

Maximum size is 60 GB

Install an operating system from a boot CD/DVD. Choose the latest ISO disk in the directory

e:\ISO\Ubuntu\ ubuntu-11.10-server-amd64.iso

Power on the machine by right-clicking it, the choose Start

New Virtual Machine Wizard

Specify Name and Location

Before You Begin

Specify Name and Location

Assign Memory

Configure Networking

Connect Virtual Hard Disk

Installation Options

Summary

Choose a name and location for this virtual machine.

The name is displayed in Hyper-V Manager. We recommend that you use a name that helps you easily identify this virtual machine, such as the name of the guest operating system or workload.

Name:

You can create a folder or use an existing folder to store the virtual machine. If you don't select a folder, the virtual machine is stored in the default folder configured for this server.

☒ Store the virtual machine in a different location

Location:

! If you plan to take snapshots of this virtual machine, select a location that has enough free space. Snapshots include virtual machine data and may require a large amount of space.

< Previous Next > Finish Cancel

New Virtual Machine Wizard

Assign Memory

Before You Begin

Specify Name and Location

Assign Memory

Configure Networking

Connect Virtual Hard Disk

Installation Options

Summary

Specify the amount of memory to allocate to this virtual machine. You can specify an amount from 8 MB through 65536 MB. To improve performance, specify more than the minimum amount recommended for the operating system.

Memory: MB

i When you decide how much memory to assign to a virtual machine, consider how you intend to use the virtual machine and the operating system that it will run.

[More about determining the memory to assign to a virtual machine](#)

< Previous Next > Finish Cancel

New Virtual Machine Wizard

Configure Networking

Before You Begin

Specify Name and Location

Assign Memory

Configure Networking

Connect Virtual Hard Disk

Installation Options

Summary

Each new virtual machine includes a network adapter. You can configure the network adapter to use a virtual network, or it can remain disconnected.

Connection:

[More about configuring network adapters](#)

< Previous Next > Finish Cancel

New Virtual Machine Wizard

Connect Virtual Hard Disk

Before You Begin

Specify Name and Location

Assign Memory

Configure Networking

Connect Virtual Hard Disk

Installation Options

Summary

A virtual machine requires storage so that you can install an operating system. You can specify the storage now or configure it later by modifying the virtual machine's properties.

☒ Create a virtual hard disk

Name:

Location:

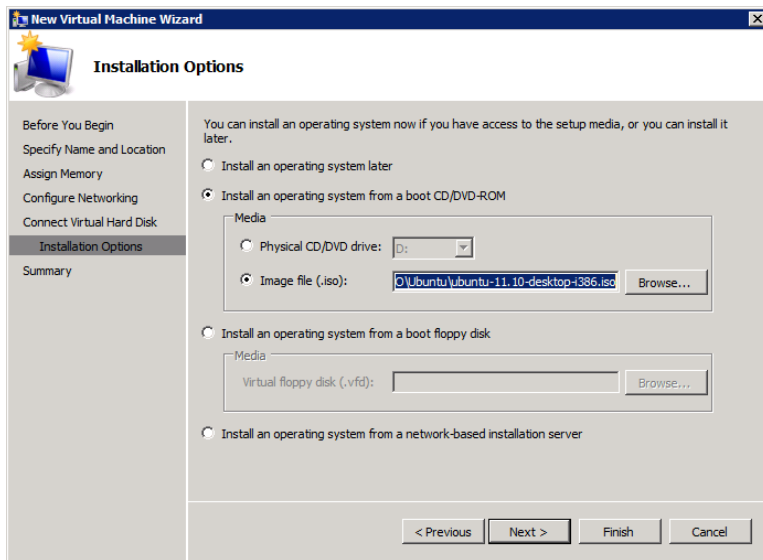
Size: GB (Maximum: 2040 GB)

☐ Use an existing virtual hard disk

Location:

☐ Attach a virtual hard disk later

< Previous Next > Finish Cancel

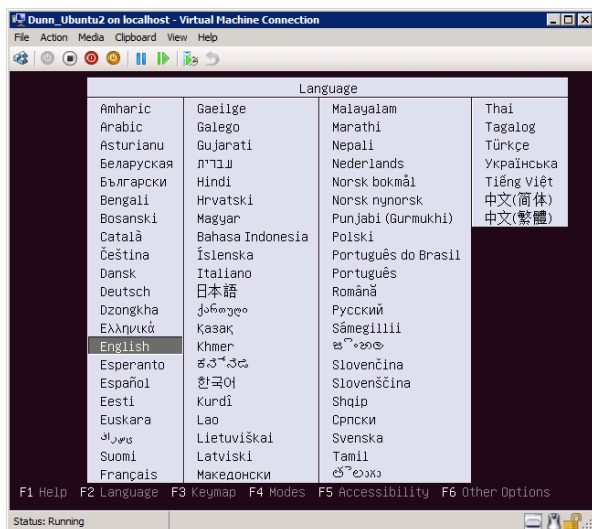


Double-click or click to highlight your assigned machine name, from the menu that appears at the right, click on Connect.

You are now looking at the virtual machine starting up.

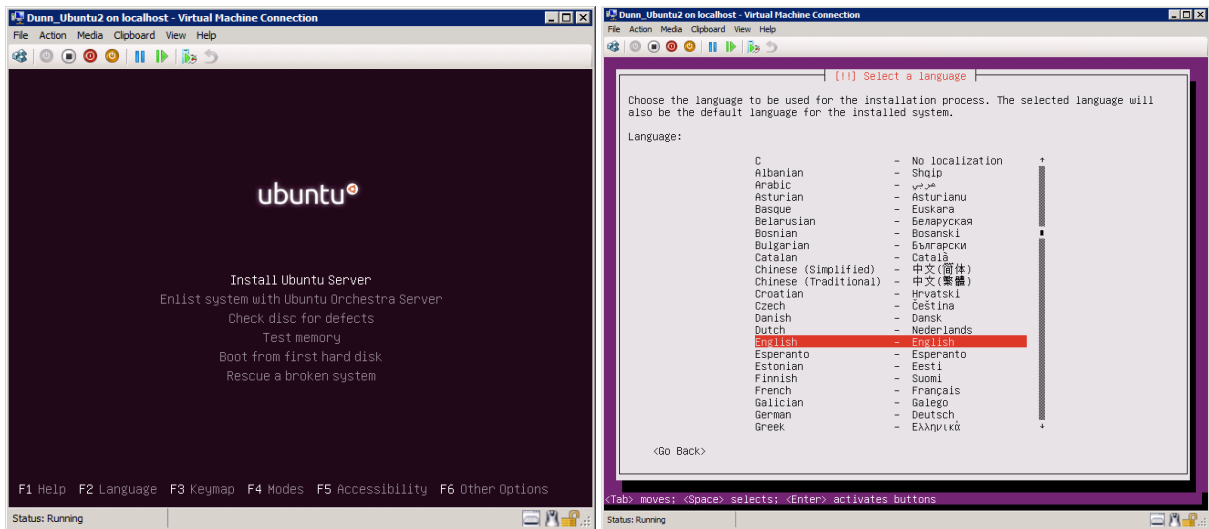
The systematic instructions are below:

The installation begins within the console after the virtual machine is turned on.



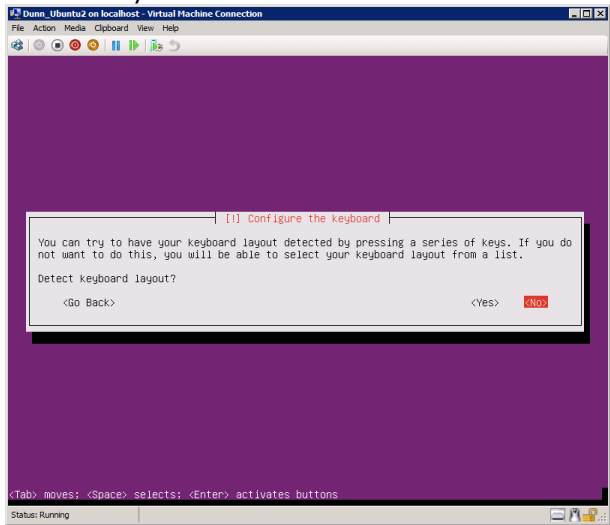
Choose English

Install Ubuntu Server

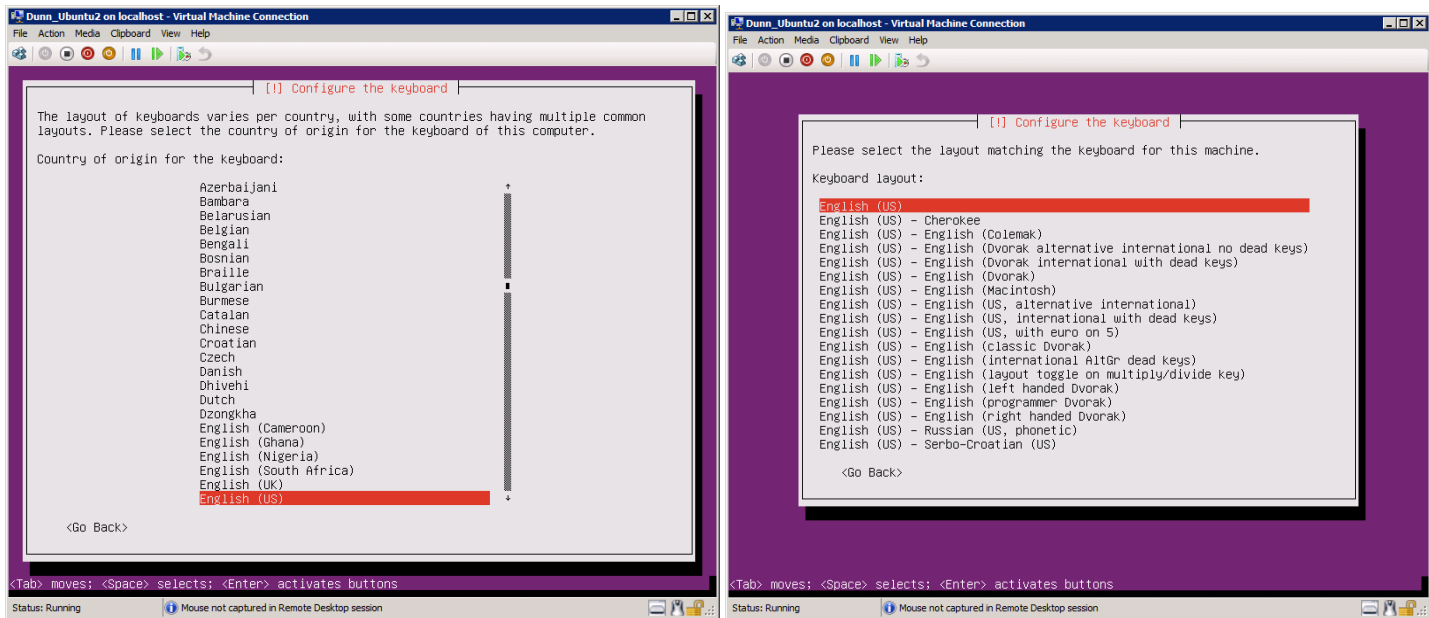


United States

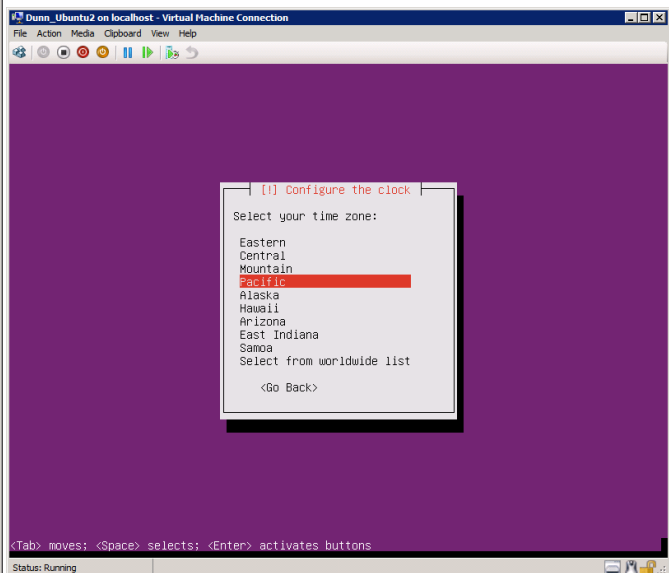
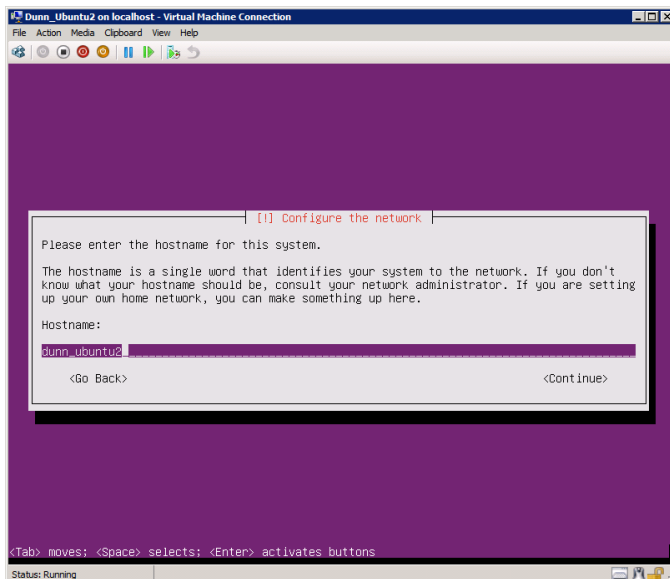
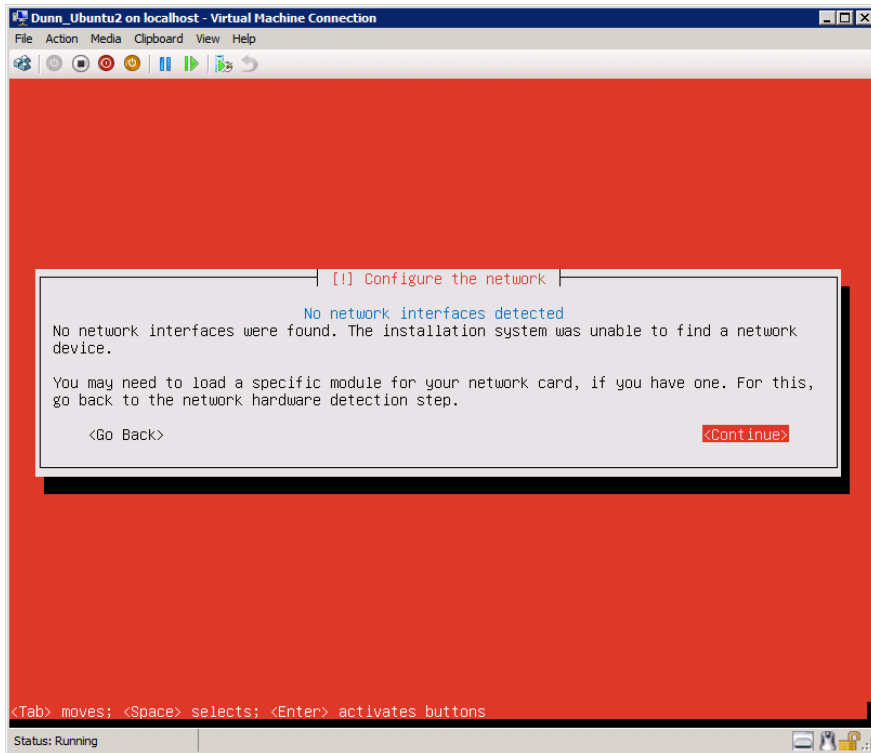
Detect Keyboard? NO



English (US)
English (US)



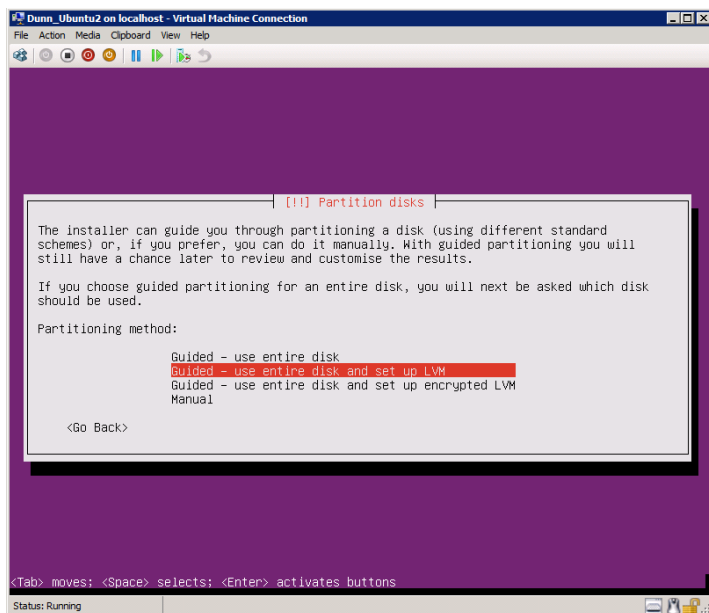
The system will not find the network card. We will fix this later. Choose **Continue**



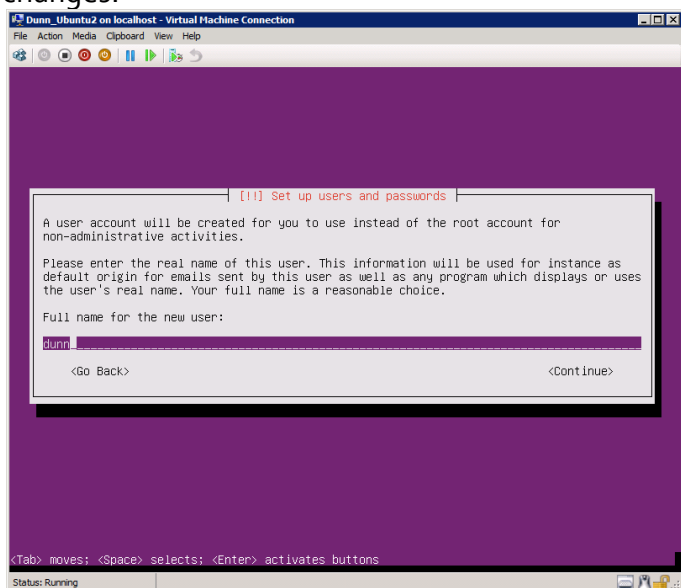
Hostname: xxUbuntu (replace xx with your student number)

Installation proceeds - setting up the clock, set the time zone to Pacific

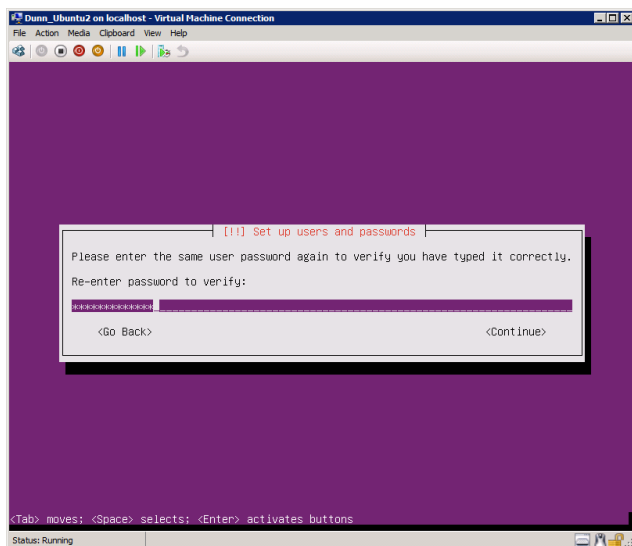
Partition Method: Guided - the disks using the entire disk and set up LVM



Select the available disk. Choose YES to write changes to the disk. Use the entire disk. Yes again to write changes.



Choose the name for new user - use your full name

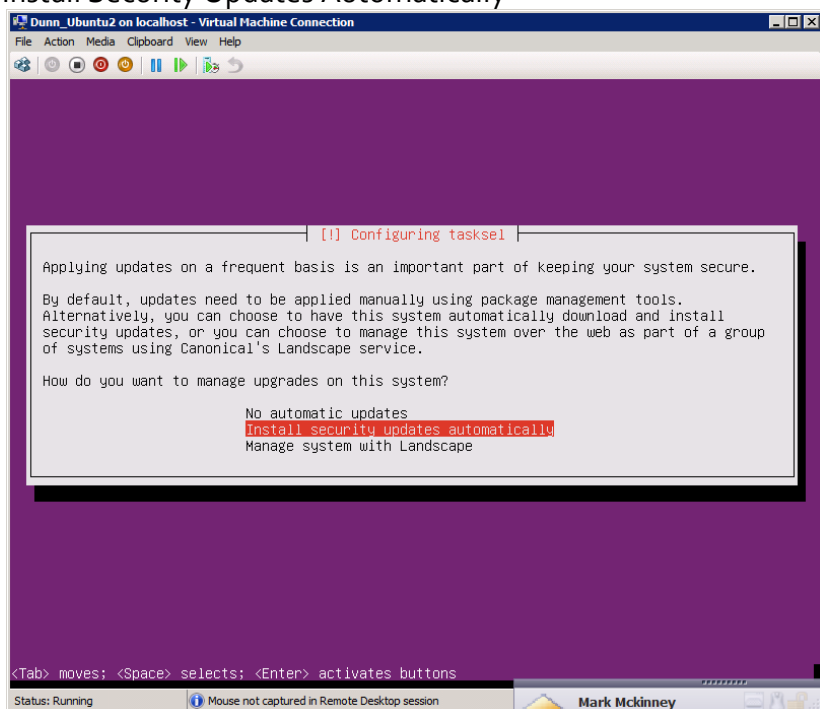


Choose the username for new user - your mySVC username.
Use your original mySVC password

Encrypt your home directory? Choose NO

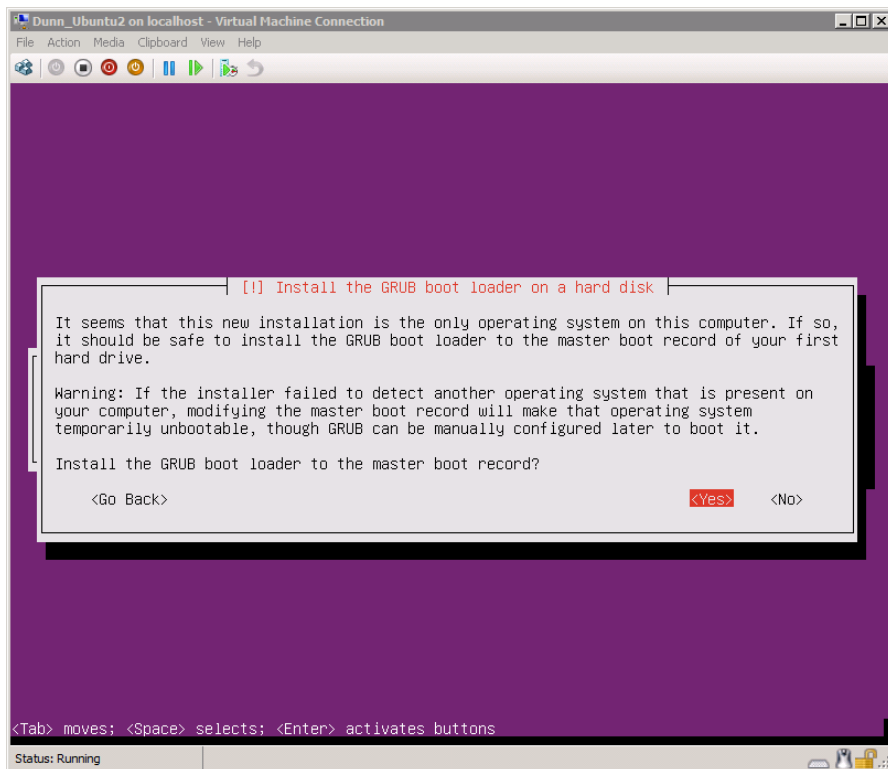
HTTP Proxy Information -leave blank. Choose Continue

Install Security Updates Automatically



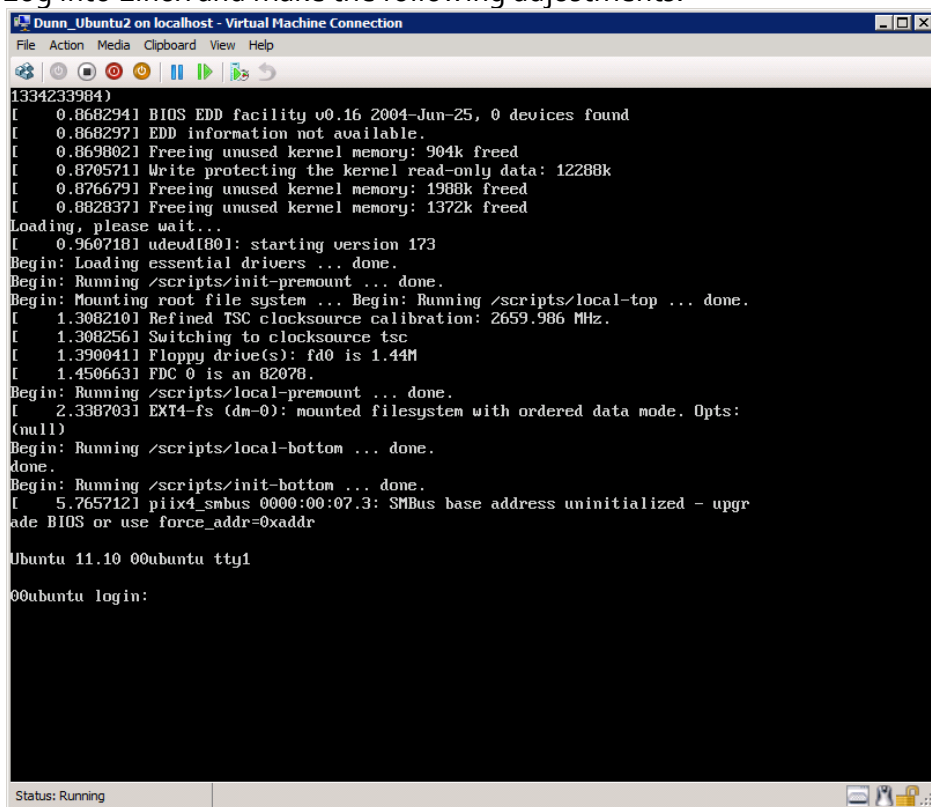
Software Selection: Choose DNS Server, OpenSSH server, Samba File Server, Ubuntu desktop. Choose Continue

Install the GRUB boot loader



Allow the system to reboot.

Log into Linux and make the following adjustments:



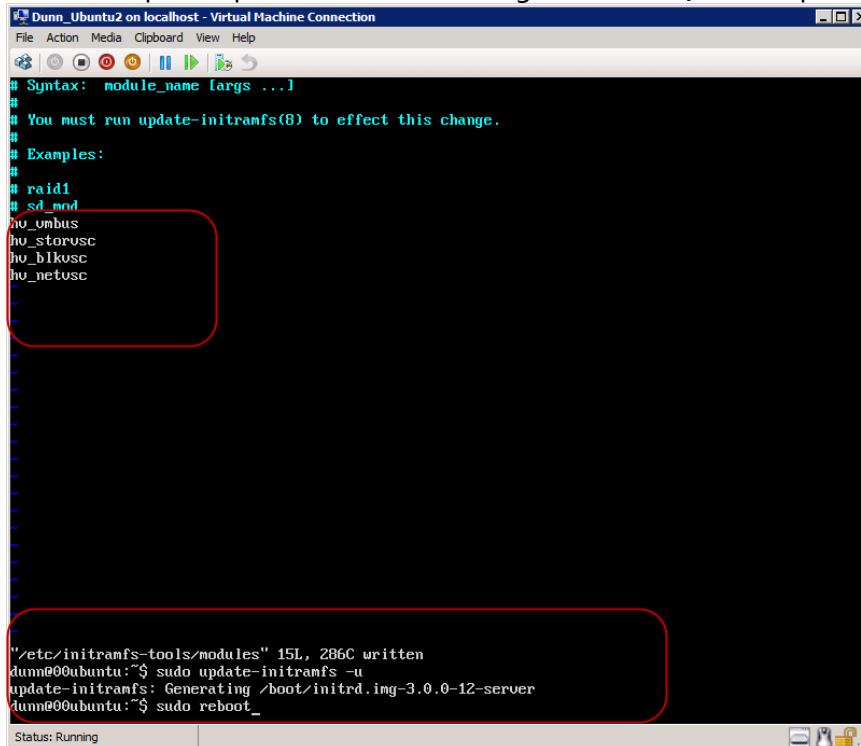
Create the root user: at the terminal prompt, type
sudo passwd root

When prompted, enter your password, and then enter the password **cis!stheBest!** twice to assign the password to the root user.

Help Ubuntu find a network card:

```
sudo vi /etc/initramfs-tools/modules
add below lines to the end of the file
hv_vmbus
hv_storvsc
hv_blkvsc
hv_netvsc
```

(once vi editor is opened press "i" & start adding above lines, on completion press "Esc" & type ":wq")



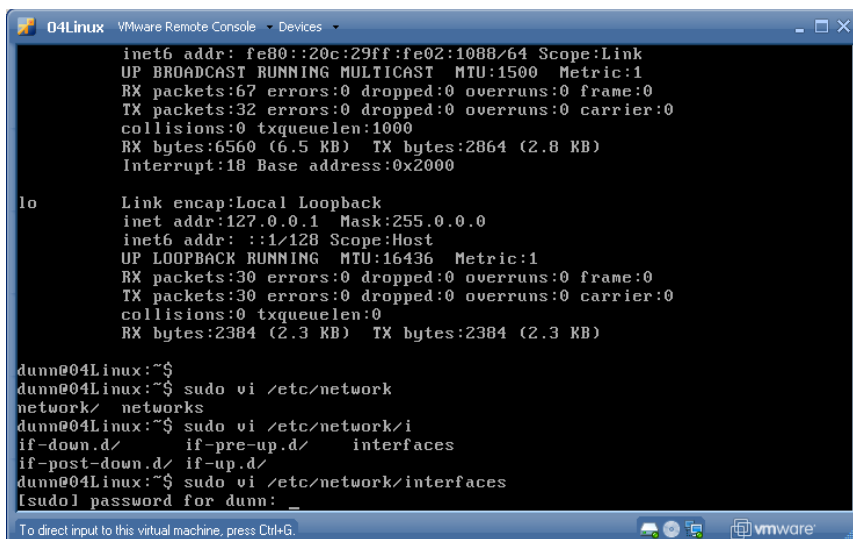
```
# Syntax: module_name [args ...]
# You must run update-initramfs(8) to effect this change.
# Examples:
# raid1
# sd_mod
hv_vmbus
hv_storvsc
hv_blkvsc
hv_netvsc

"/etc/initramfs-tools/modules" 15L, 286C written
dunn@00ubuntu:~$ sudo update-initramfs -u
update-initramfs: Generating /boot/initrd.img-3.0.0-12-server
dunn@00ubuntu:~$ sudo reboot_
```

Set the IP numbers to static. At the command prompt, type

```
sudo vi /etc/network/interfaces
```

Enter the your password account as directed on the screen



```
inet6 addr: fe80::20c:29ff:fe02:1088/64 Scope:Link
UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
RX packets:67 errors:0 dropped:0 overruns:0 frame:0
TX packets:32 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1000
RX bytes:6560 (6.5 KB) TX bytes:2864 (2.8 KB)
Interrupt:18 Base address:0x2000

lo    Link encap:Local Loopback
      inet addr:127.0.0.1 Mask:255.0.0.0
      inet6 addr: ::1/128 Scope:Host
      UP LOOPBACK RUNNING MTU:16436 Metric:1
      RX packets:30 errors:0 dropped:0 overruns:0 frame:0
      TX packets:30 errors:0 dropped:0 overruns:0 carrier:0
      collisions:0 txqueuelen:0
      RX bytes:2384 (2.3 KB) TX bytes:2384 (2.3 KB)

dunn@04Linux:~$
dunn@04Linux:~$ sudo vi /etc/network
network/ networks
dunn@04Linux:~$ sudo vi /etc/network/i
if-down.d/    if-pre-up.d/    interfaces
if-post-down.d/ if-up.d/
dunn@04Linux:~$ sudo vi /etc/network/interfaces
[sudo] password for dunn: _
```


Once you have made these changes you will need to run
`sudo update-initramfs -u`
`sudo reboot`

Using vi, open the file `/etc/network/interfaces` with root privileges. Make any changes necessary in the `eth0` section. Replace `xx` with the assigned IP number. Note: in the line `eth0`, the 0 is a zero.

```
auto eth0
iface eth0 inet static
    address 192.168.9.xxx
    netmask 255.255.255.0
    network 192.168.9.0
    gateway 192.168.9.1
    # dns-* options are implemented by the resolvconf package, if installed
    nameserver 192.168.9.100
    search cis.local
```

ESC :wq to write and quit the VI editor.

restart the networking to use your new configurations:

`sudo /etc/init.d/networking restart`

Verify your connective

`ping 192.168.9.1`

Make sure you get a reply

`ping www.google.com`

Make sure you get the ip address of Google (you will not receive a reply)

Get and install the updates

`sudo apt-get update`

`sudo apt-get upgrade`

Get the remote desktop service

`sudo apt-get install xrdp`

Install the desktop

`sudo apt-get install ubuntu-desktop`

reboot

`sudo reboot`

If you are receiving errors, check your interfaces file again, verify the pings. One misplaced letter, or as I did, add a capital A in auto and nothing will work.

Initial setup is complete. The problem with Ubuntu and Hyper-V is that the mouse drivers will not install properly. The workaround is to use remote desktop to connect. You installed `xrdp`, which will run a Windows Remote Desktop session. At the Windows Machine, open the Remote Desktop Connection Manager. Add a server with the IP number of the Ubuntu machine. Then the real magic happens!

