

# 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

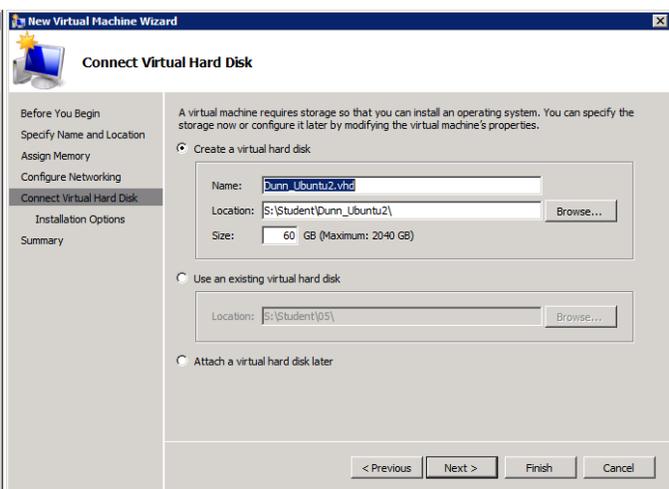
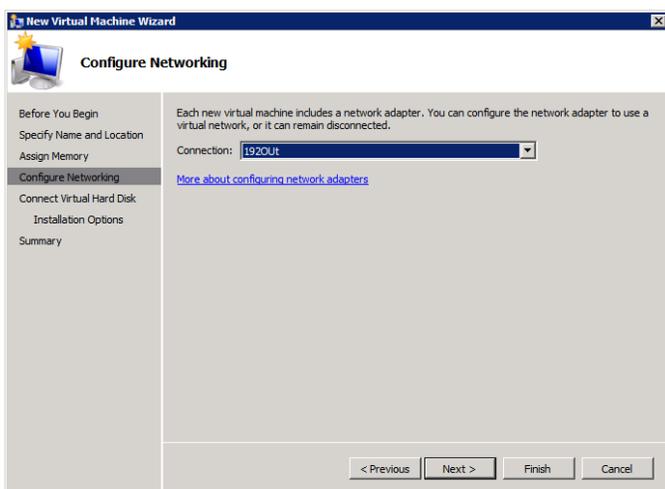
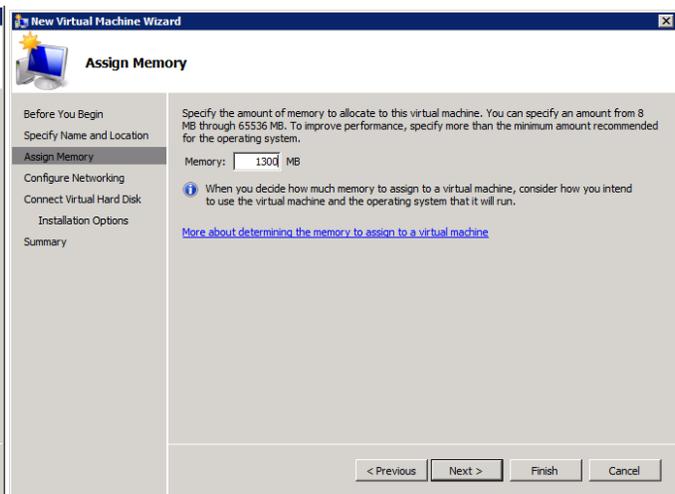
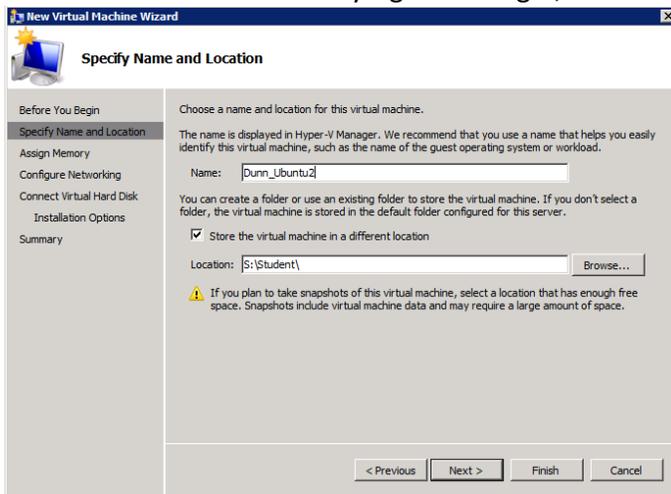
Locate at s:\student

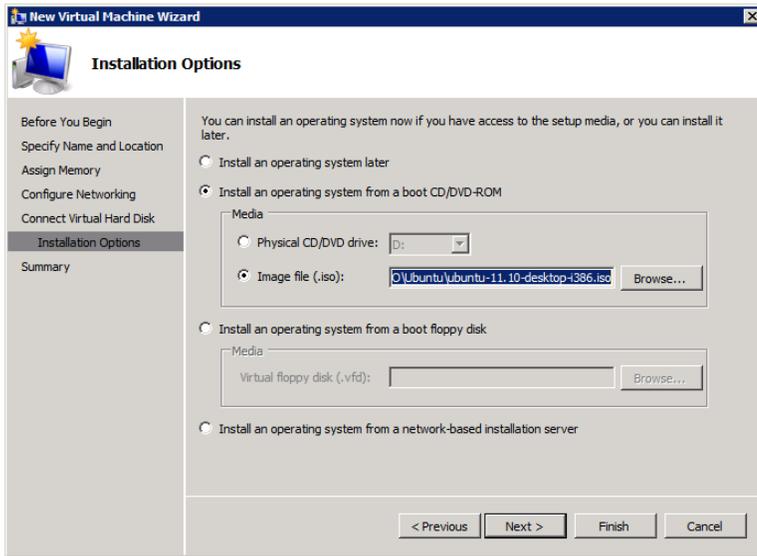
Maximum size is 60 GB

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



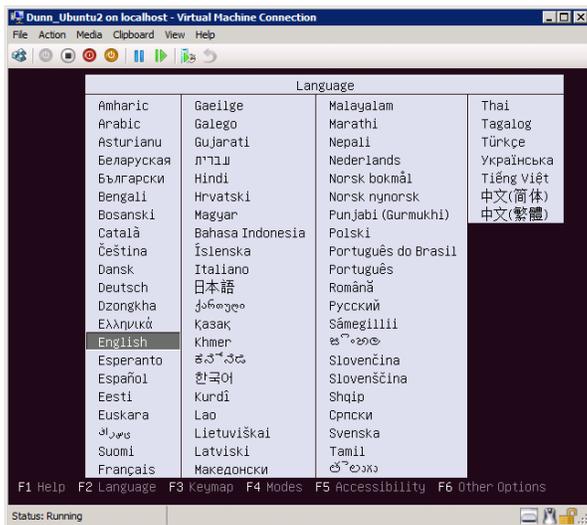


Double-click or click to highlight your assigned machine name, from the menu that appears at the right, click on Connect.

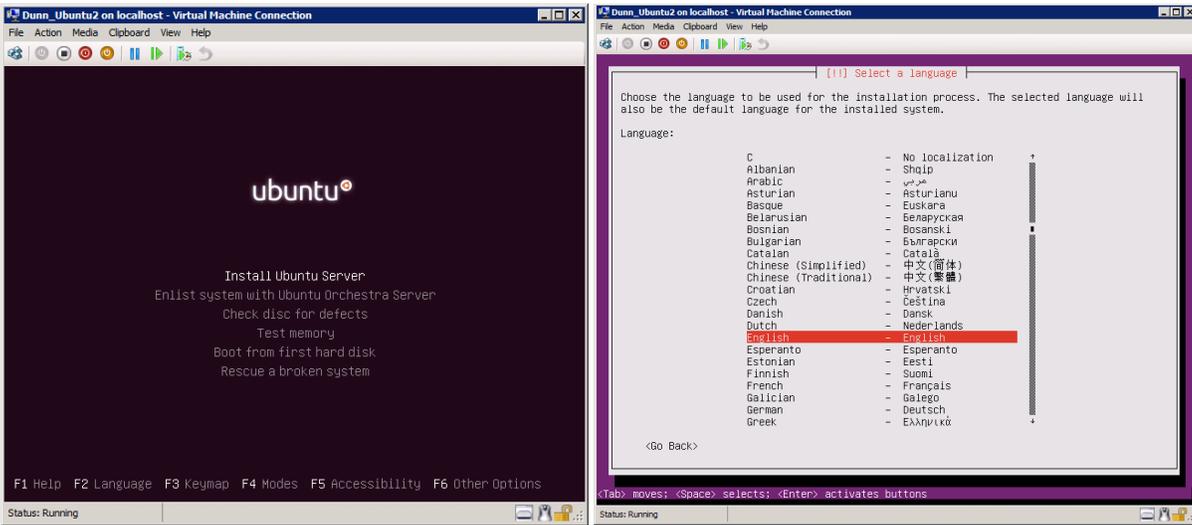
You are now looking at the virtual machine starting up.

The systematic instructions are below:

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

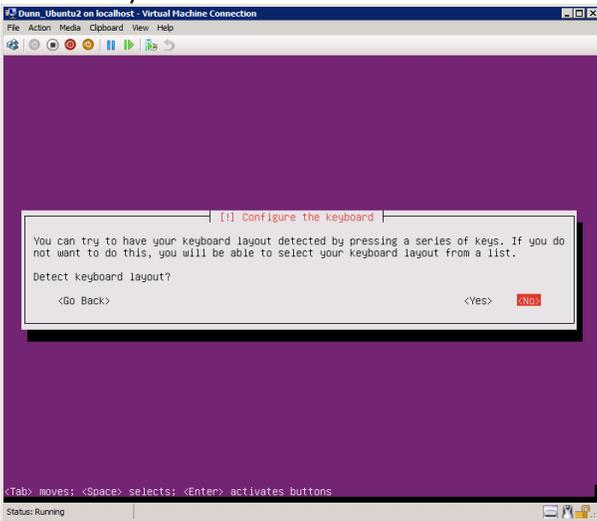


Choose English  
Install Ubuntu Server

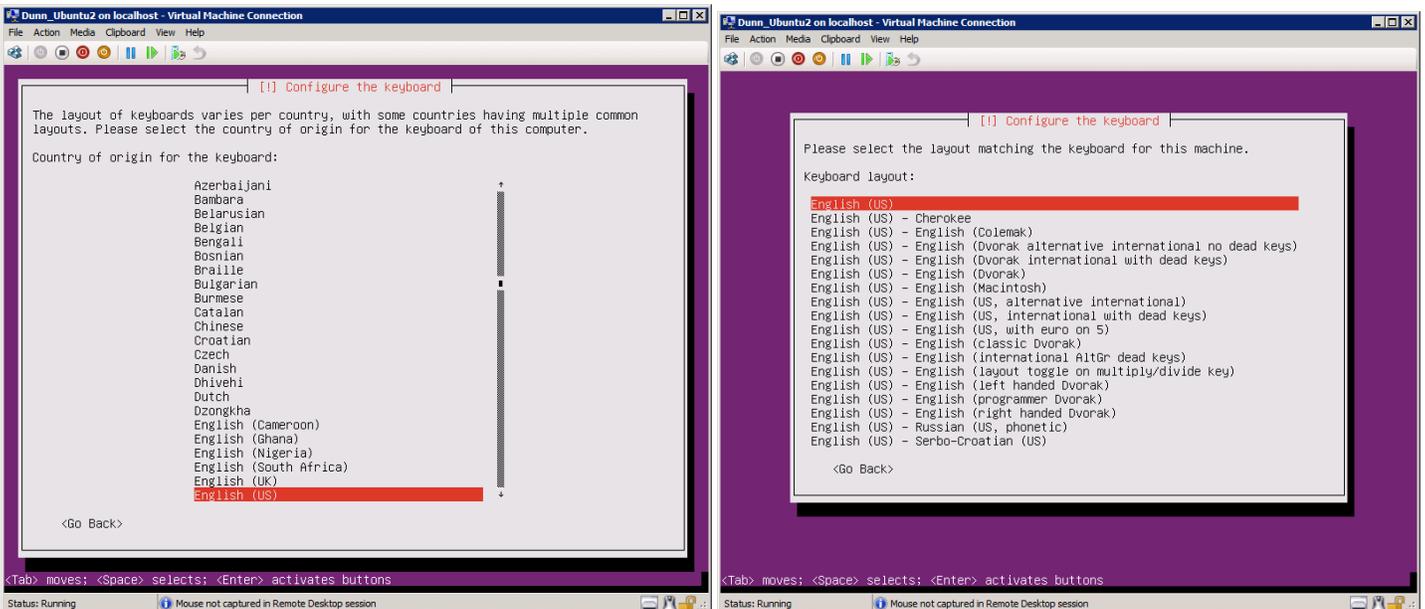


## United States

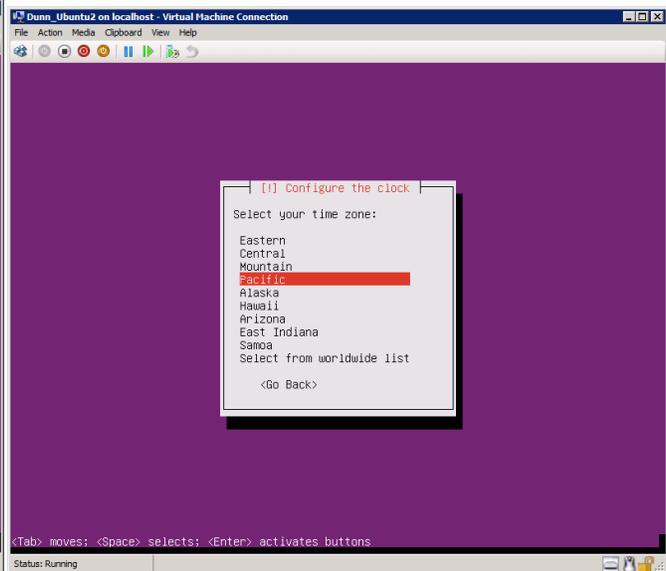
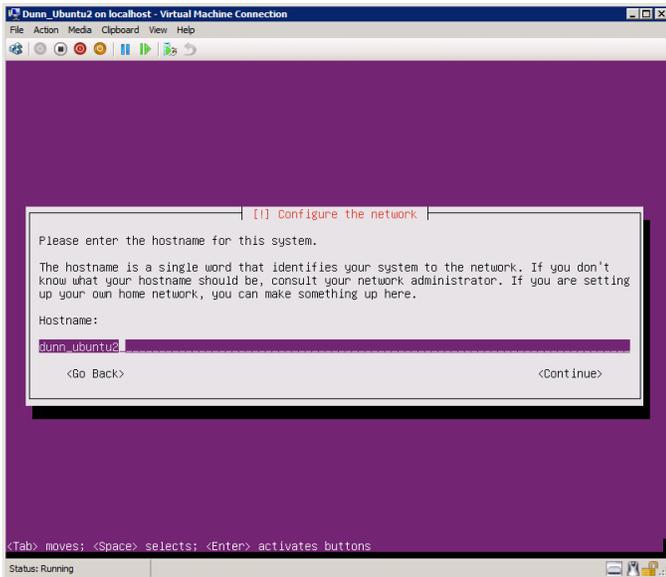
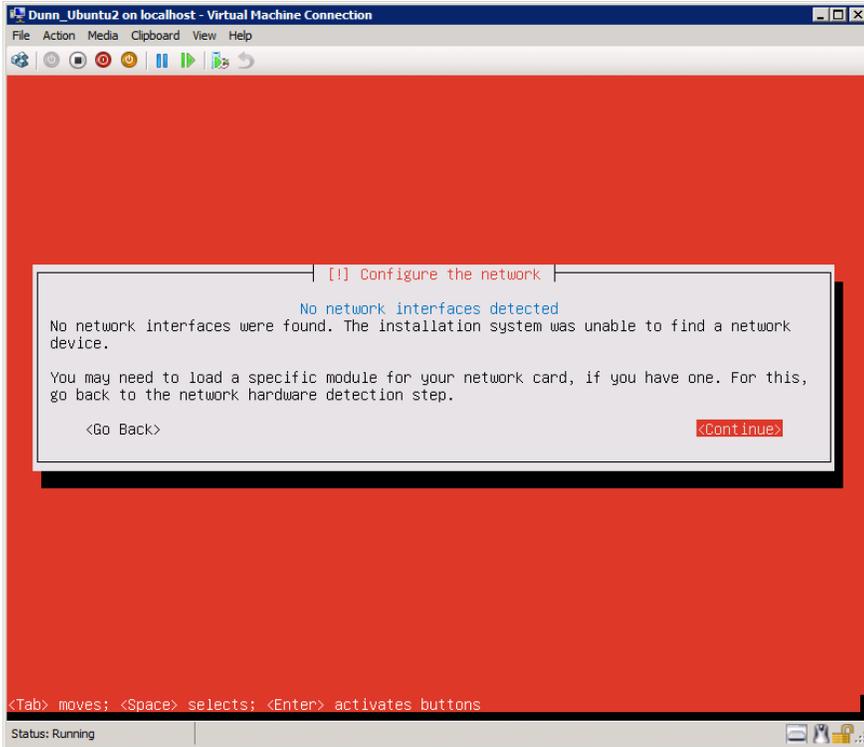
### Detect Keyboard? NO



## English (US) English (US)



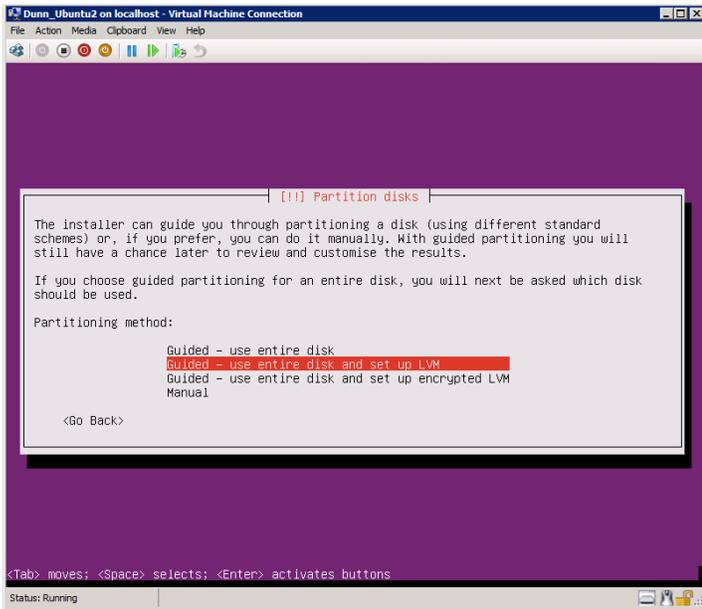
The system will not find the network card. We will fix this later. Choose **Continue**



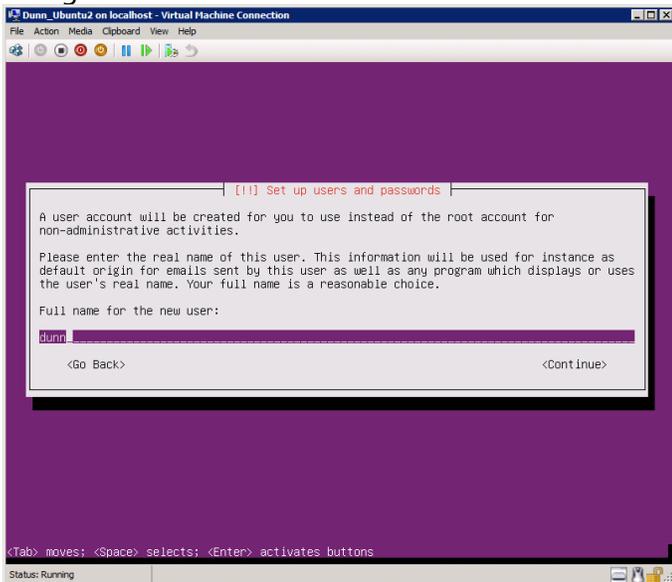
Hostname: xxUbuntu (replace xx with your student number)

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

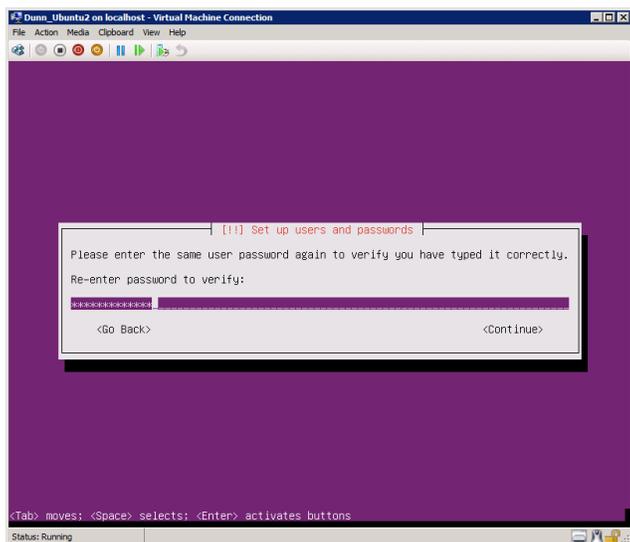
Partition Method: Guided - the disks using the entire disk and set up LVM



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

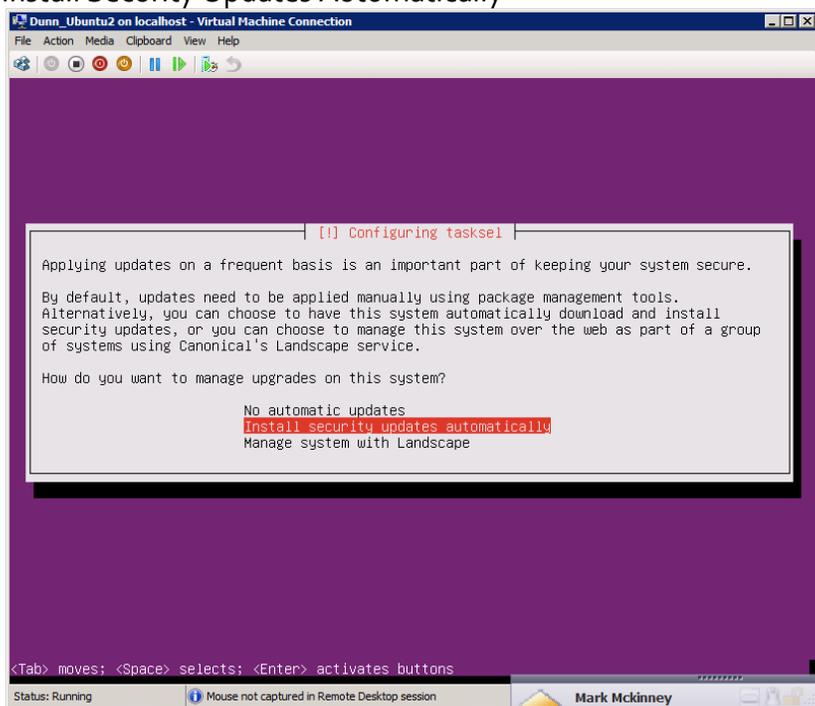


Choose the username for new user - your mySVC username.  
Use your original mySVC password

Encrypt your home directory? Choose NO

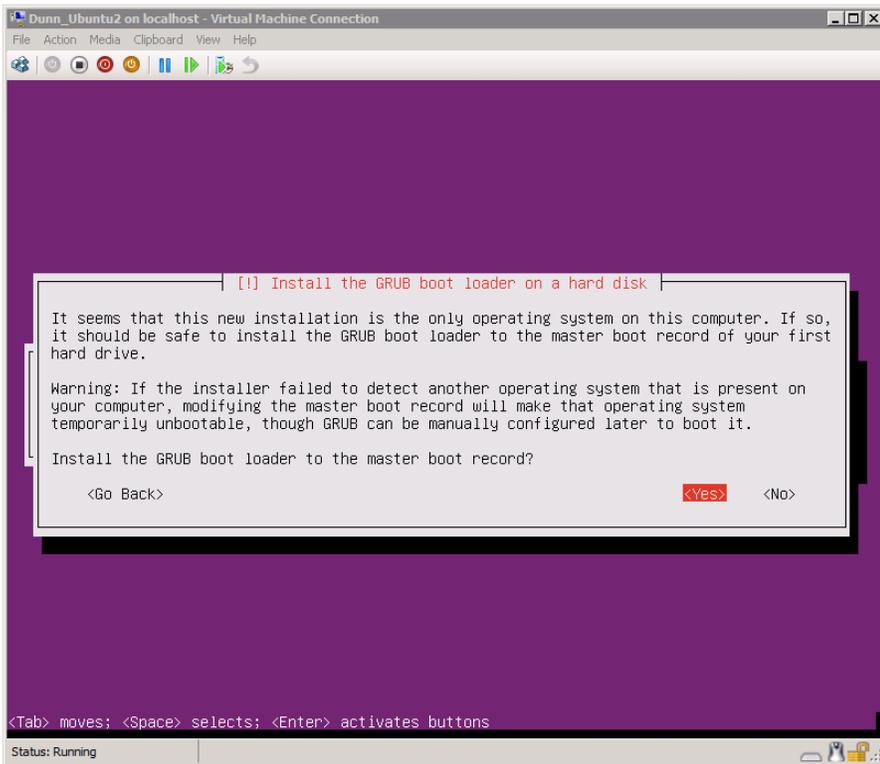
HTTP Proxy Information -leave blank. Choose Continue

### Install Security Updates Automatically



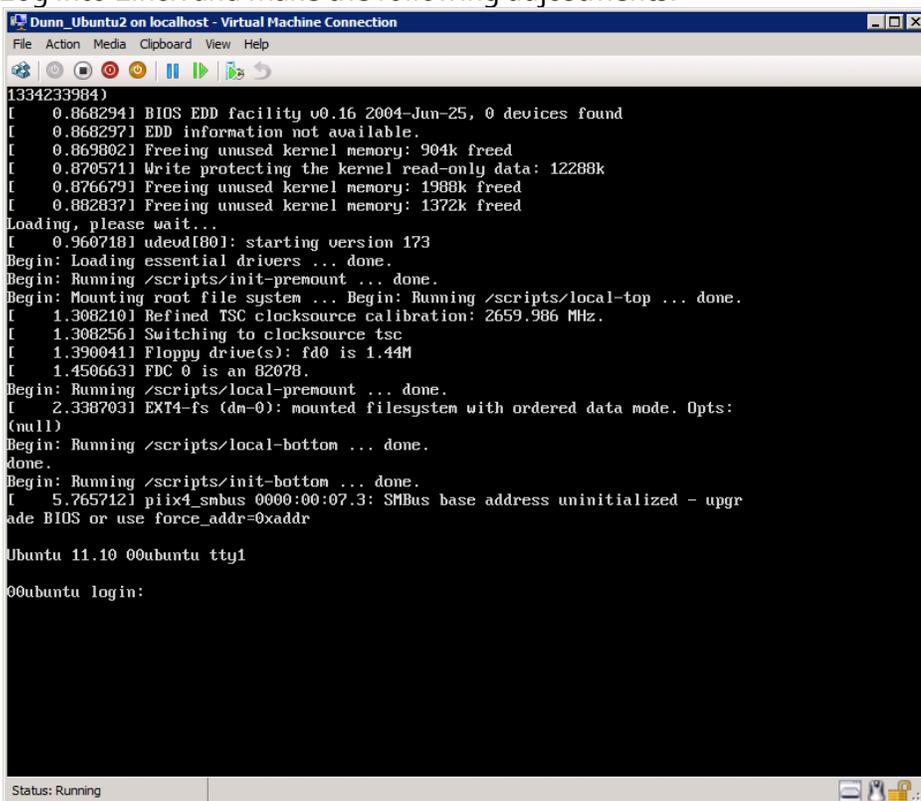
Software Selection: Choose DNS Server, OpenSSH server, Samba File Server, Ubuntu desktop. Choose Continue

Install the GRUB boot loader



Allow the system to reboot.

Log into Linux and make the following adjustments:



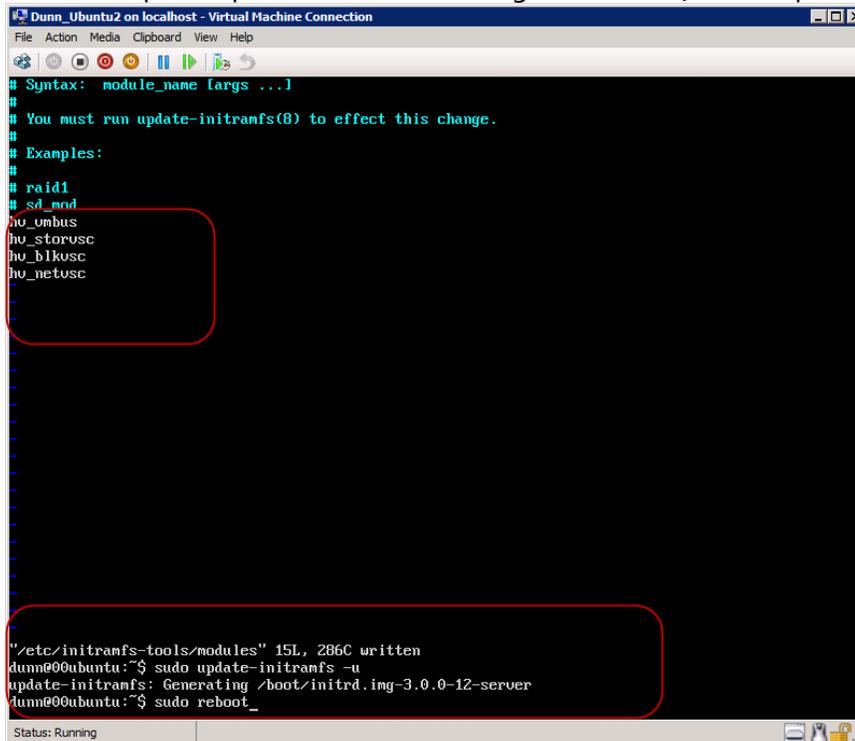
Create the root user: at the terminal prompt, type  
**sudo passwd root**

When prompted, enter your password, and then enter the password **cisltheBest!** 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")



```
Dunn_Ubuntu2 on localhost - Virtual Machine Connection
File Action Media Clipboard View Help
# Syntax: module_name [args ...]
# You must run update-initramfs(8) to effect this change.
# Examples:
# raid1
# sd_msd
hv_umbus
hv_storvsc
hv_blkvsc
hv_netvsc

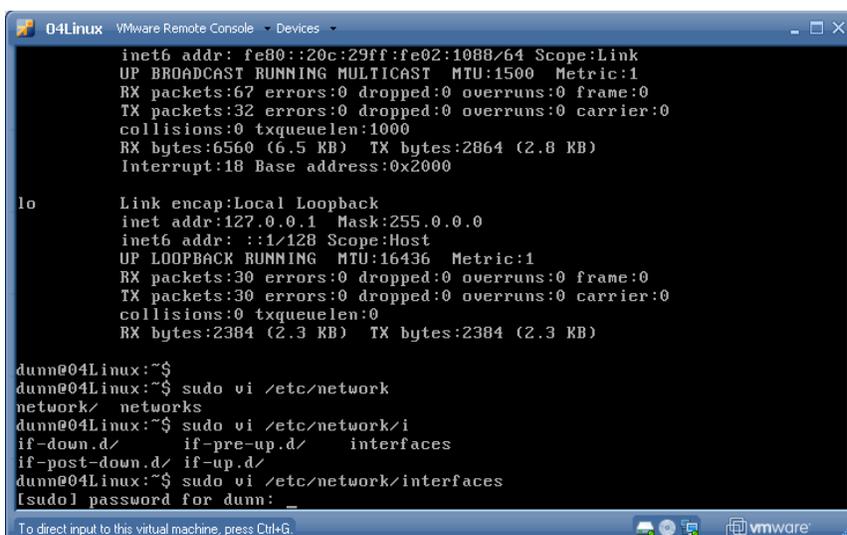
"/etc/initramfs-tools/modules" 15L, 286C written
dunn@00ubuntu:~$ sudo update-initramfs -u
update-initramfs: Generating /boot/initrd.img-3.0.0-12-server
dunn@00ubuntu:~$ sudo reboot_

Status: Running
```

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



```
04Linux VMware Remote Console - Devices
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: _

To direct input to this virtual machine, press Ctrl+G.
```

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!

