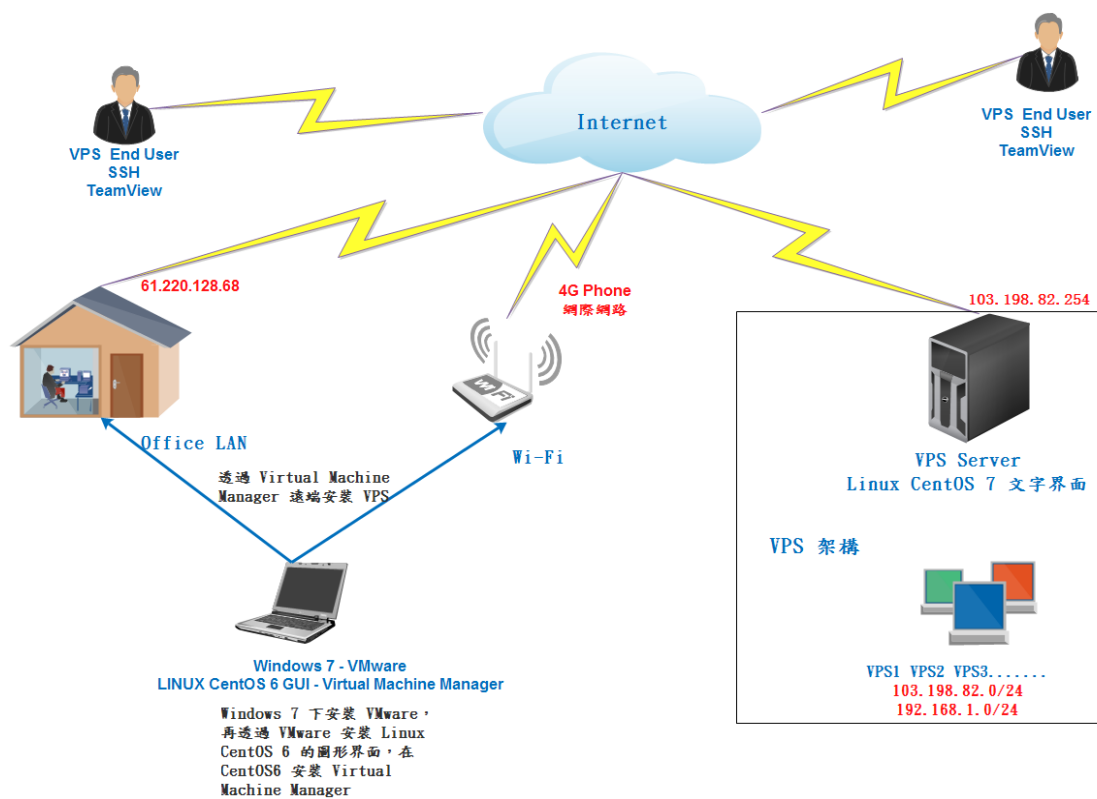




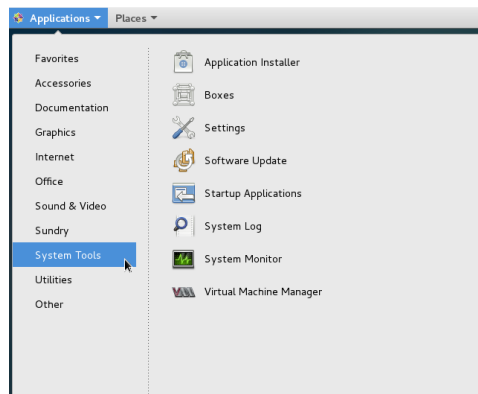
由於之前是透過 VNC 程式連至辦公室的電腦(192.168.1.240:5903)，或是到電腦前實際操作下，連線至機房的 VPS Server。

目前已是利用 VMware 安裝一台 GUI 的 CentOS，再透過 CentOS 的 Virtual Machine Manager(VMM)連線到機房的 VPS Server。

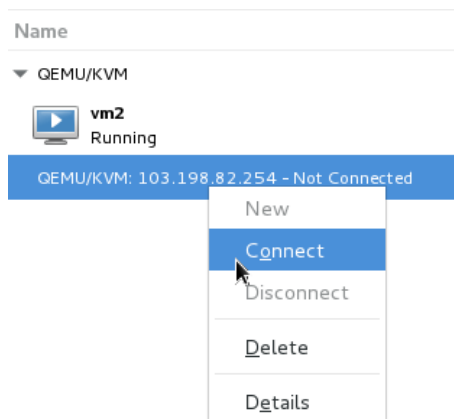
## 1. 登入作業系統



## 2. 開啟 Virtual Machine Manager 程式



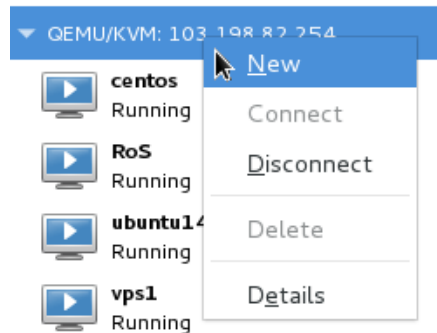
## 3. 連線至遠端的伺服器



## 4. 連線成功後，可看到目前正在運行的虛擬機

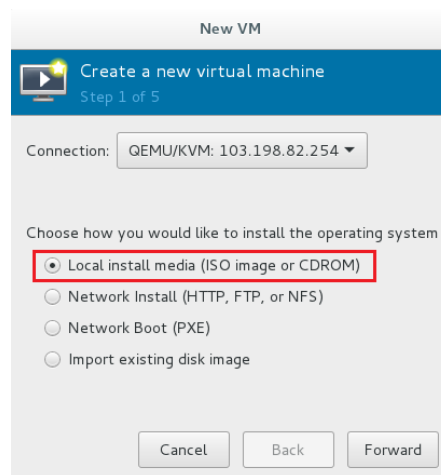


## 5. Create New



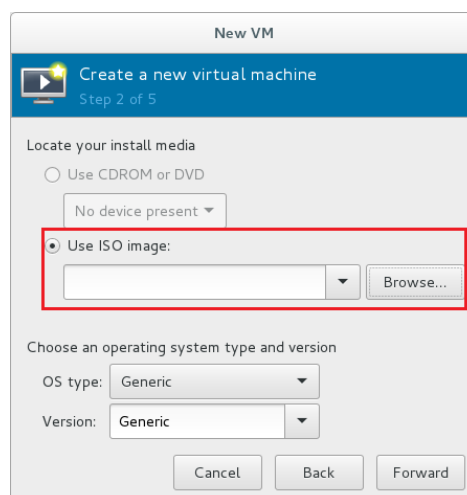
## 6. 選擇安裝作業系統的方式

- Local install media (ISO image or CDROM)



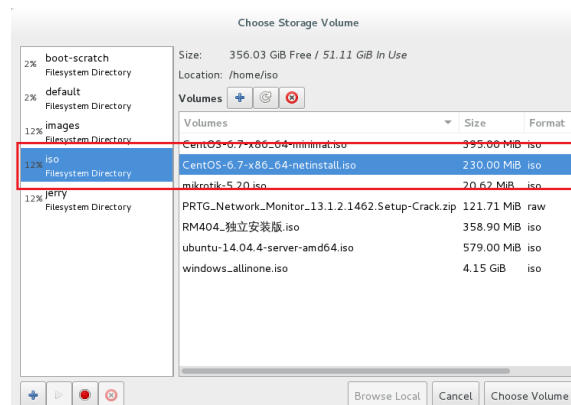
## 7. 選擇 ISO image 來源

- Use ISO image

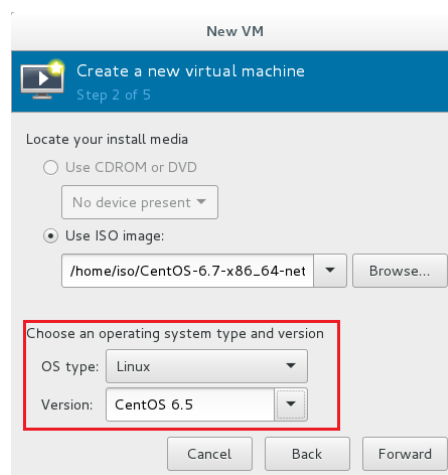


## 8. 選擇所欲安裝的作業系統版本之路徑

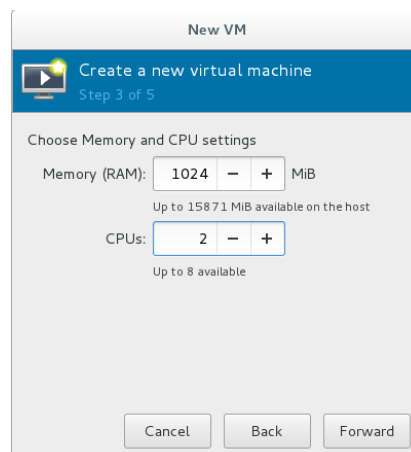
- 在此的 iso 檔是放置在 /home/iso 底下



## 9. 選擇所欲安裝的作業系統及版本

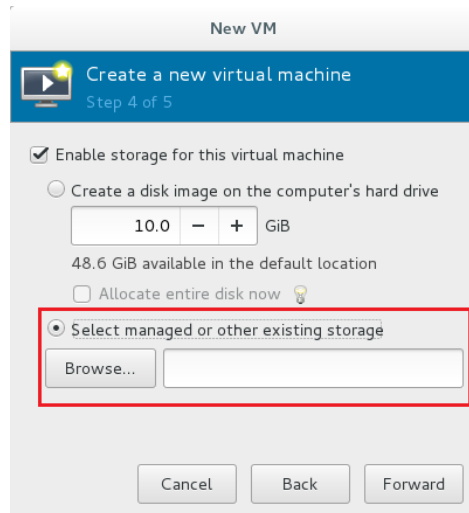


## 10. 選擇 CPU 及 Memory RAM 的規格



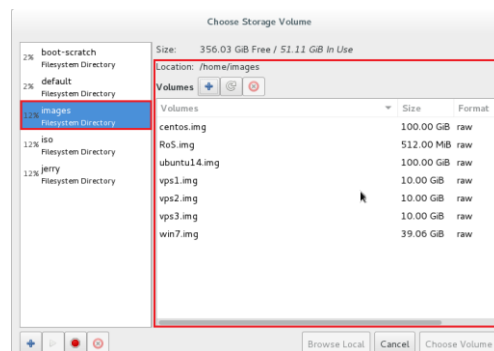
## 11. 選擇所欲安裝的路徑

- Select managed or other existing storage

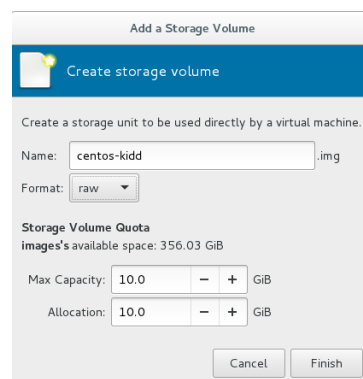


## 12. 選擇安裝的路徑

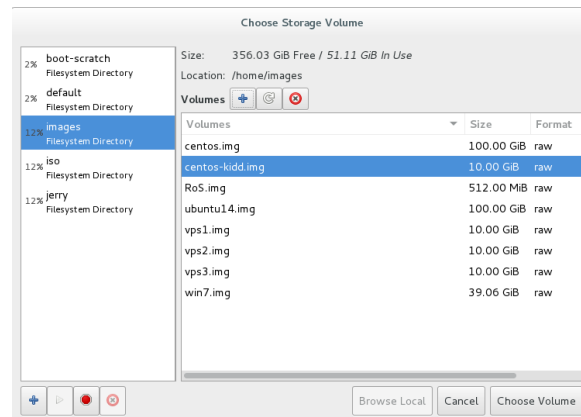
- 在此都統一安裝在 /home/image 底下



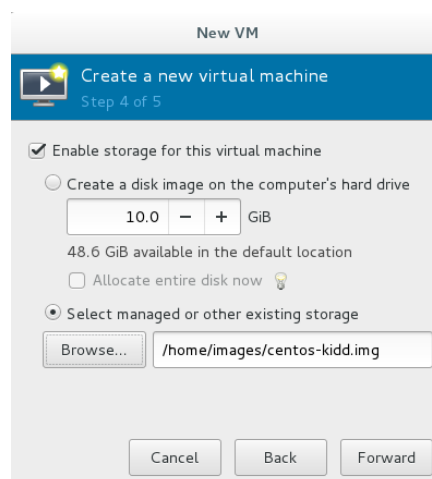
## 13. 另行產生一個新的 .img 檔



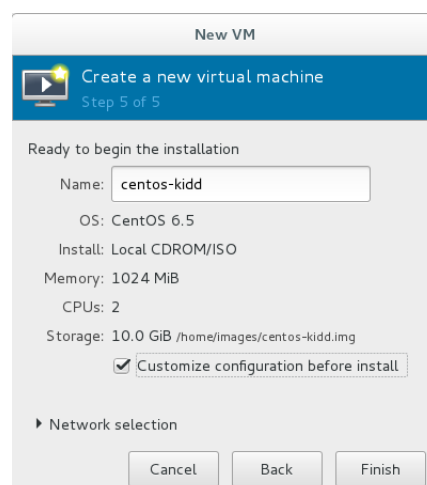
#### 14. 指定安裝路徑檔，即選擇剛建立的檔案



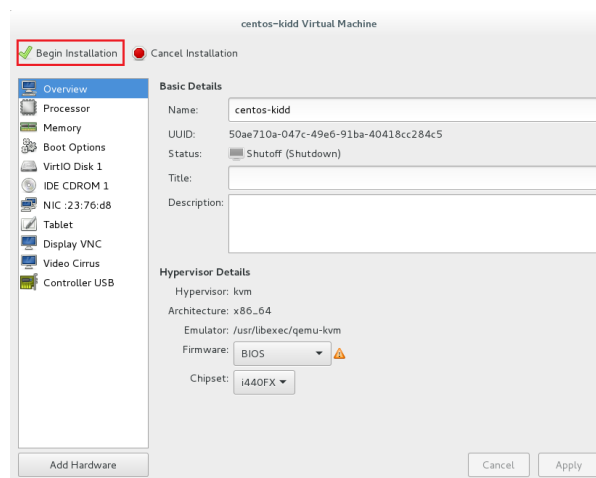
#### 15. 進行下一步(Forward)



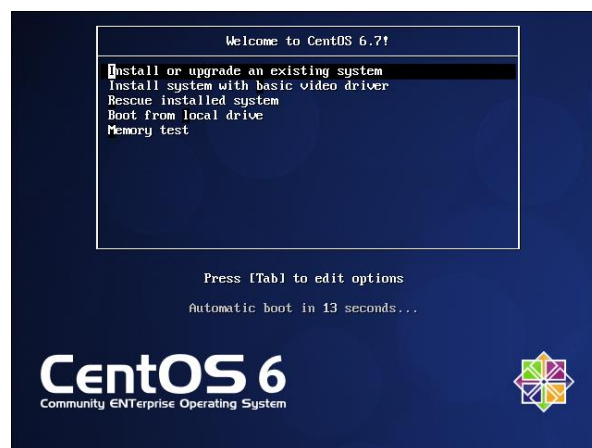
#### 16. 檔名建立，及在安裝前是否還要再客製化硬體規格



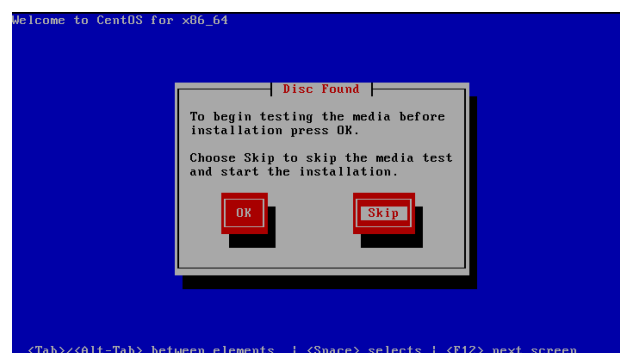
## 17. 檢查無誤後，即可開始安裝



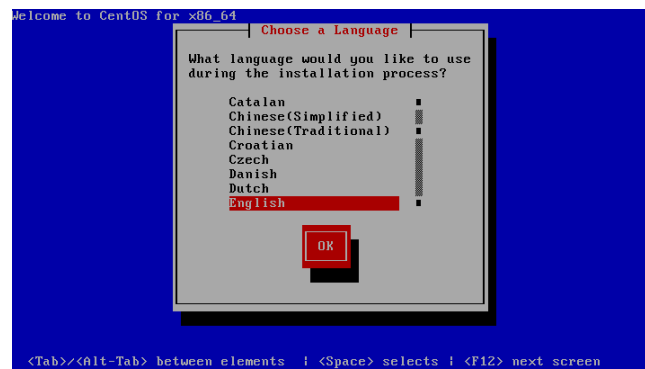
## 18. Install or upgrade an existing system



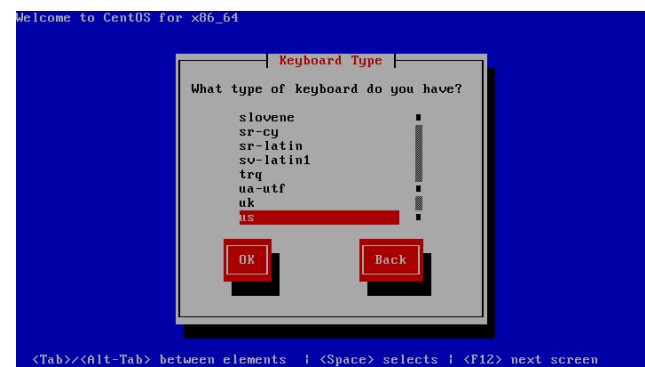
## 19. Skip the media test and start the installation



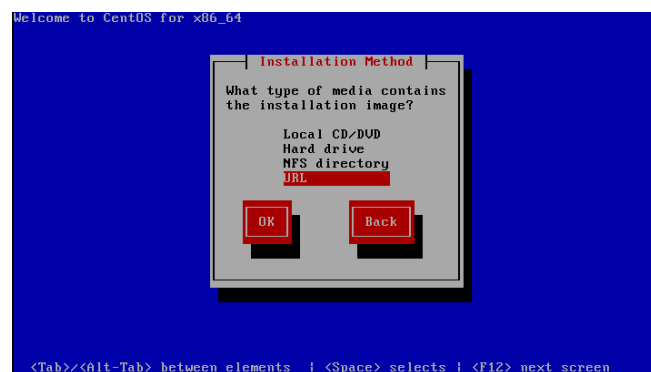
## 20. Choose English Language



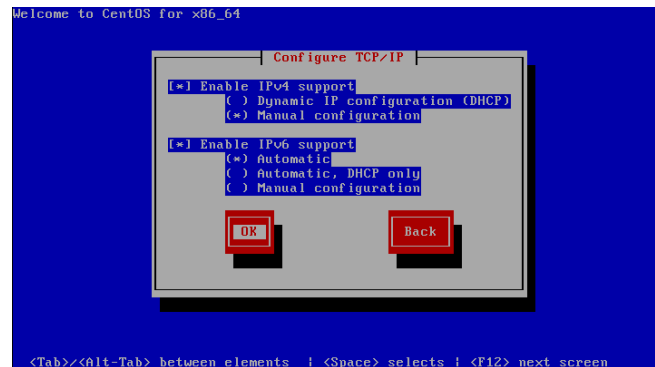
## 21. US Keyboard Type



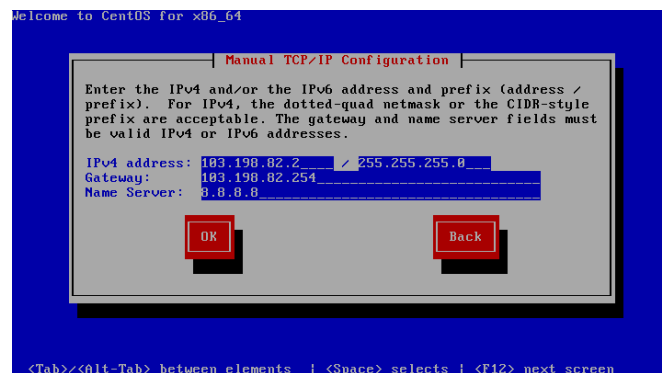
## 22. Choose URL Installation Method



## 23. Manual configuration

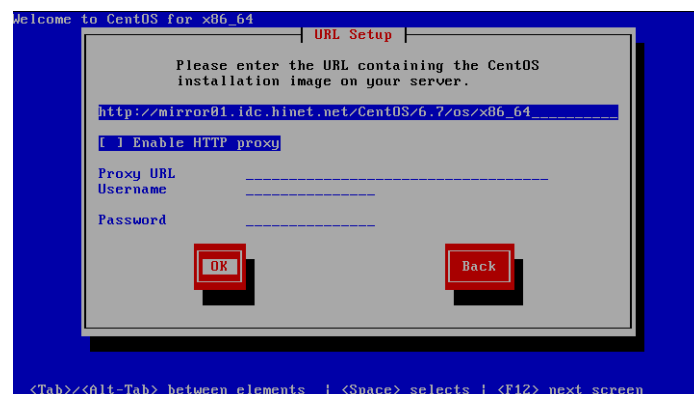


## 24. Manual TCP/IP Configuration

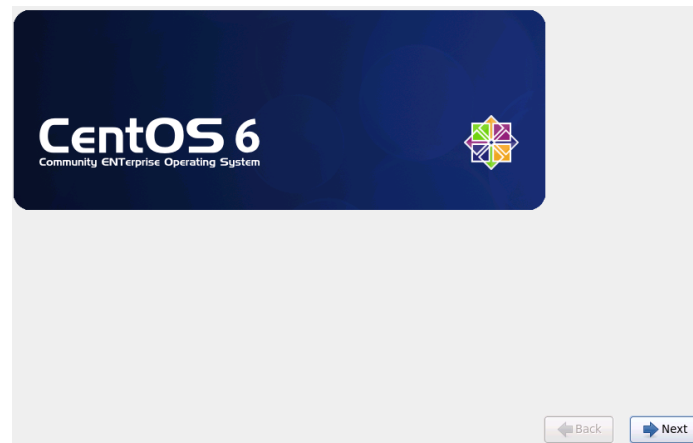


## 25. URL Source

[http://mirror01.idc.hinet.net/CentOS/6.7/os/x86\\_64/](http://mirror01.idc.hinet.net/CentOS/6.7/os/x86_64/)



## 26. Next



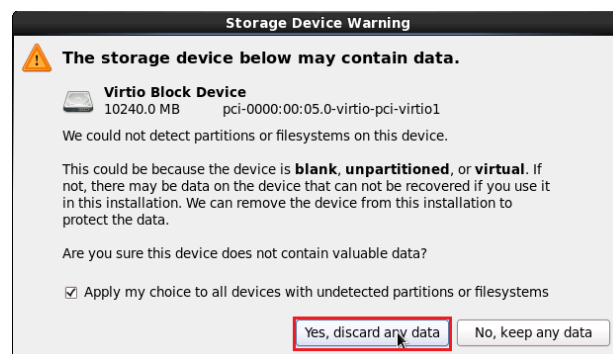
## 27. Basic Storage Devices

What type of devices will your installation involve?

☒ **Basic Storage Devices**  
Installs or upgrades to typical types of storage devices. If you're not sure which option is right for you, this is probably it.

☐ **Specialized Storage Devices**  
Installs or upgrades to enterprise devices such as Storage Area Networks (SANs). This option will allow you to add FCoE / iSCSI / zFCP disks and to filter out devices the installer should ignore.

## 28. Storage Device Warning

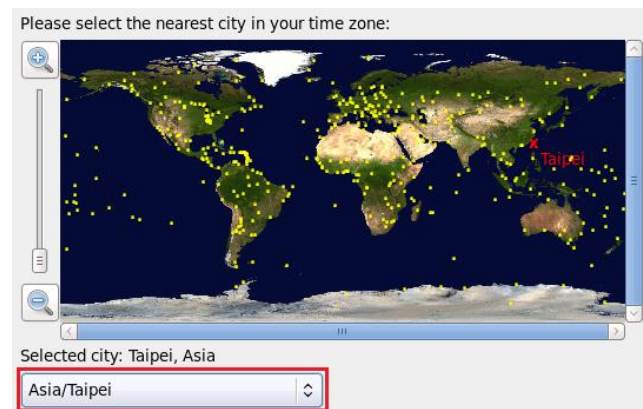


## 29. Hostname

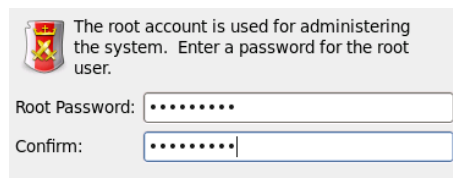
Please name this computer. The hostname identifies the computer on a network.

Hostname:

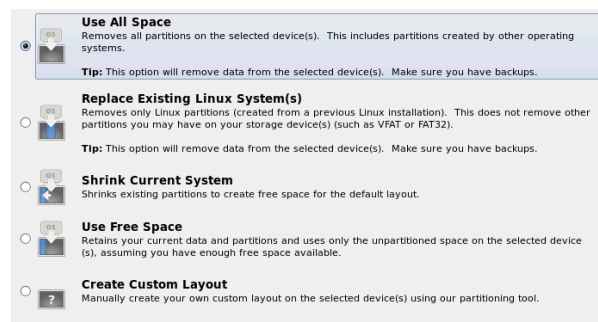
### 30. City and Time Zone



### 31. Root Password



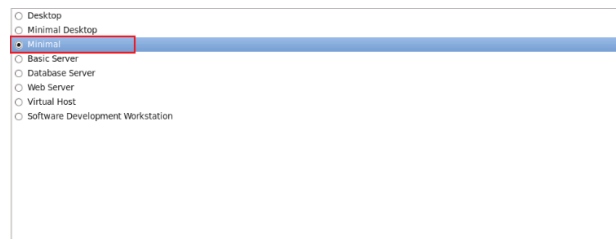
### 32. Use All Space



### 33. Writing storage configuration to disk



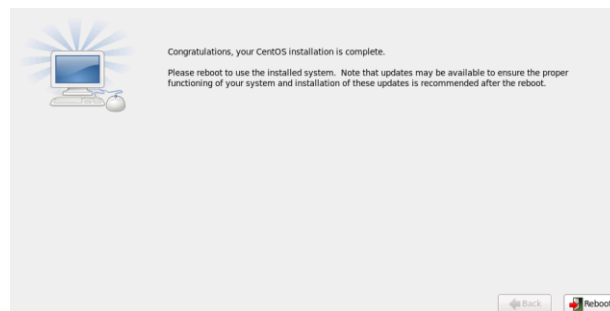
## 34. Minimal Install



## 35. Installing



## 36. Reboot



## 37. Login

```
CentOS release 6.7 (Final)
Kernel 2.6.32-573.el6.x86_64 on an x86_64
localhost login: _
```

## 38. SSH 進 VPS Server 上進行頻寬限制

```
[root@host1 kidd]# virsh edit centos-kidd
```

指令：`virsh edit vps-name`

### 39. 找到 bridge interface 的地方

```
<interface type='bridge'>  
  <mac address='52:54:00:23:76:d8' />  
  <source bridge='br0' />  
  <model type='virtio' />  
  <address type='pci' domain='0x0000' bus='0x00' slot='0x03' function='0x0' />  
</interface>
```

### 40. 在 source bridge 及 model type 之間插入頻寬的數值

```
<interface type='bridge'>  
  <mac address='52:54:00:23:76:d8' />  
  <source bridge='br0' />  
  <bandwidth>  
    <inbound average='1024' peak='12000' burst='2048' />  
    <outbound average='1024' peak='12000' burst='2048' />  
  </bandwidth>  
  <model type='virtio' />  
  <address type='pci' domain='0x0000' bus='0x00' slot='0x03' function='0x0' />  
</interface>
```

<bandwidth>

<inbound average=' 1024' peak=' 12000' burst=' 2048' />

<outbound average=' 1024' peak=' 12000' burst=' 2048' />

</bandwidth>

### 41. 關閉 vps

```
[root@host1 kidd]# virsh shutdown centos-kidd  
Domain centos-kidd is being shutdown
```

指令：`virsh shutdown vps-name`

### 42. 如果發現 VPS Client 沒有關機，則直接進入該 VPS 做關機動作

```
[root@localhost ~]# init 0_
```

指令：`init 0`

### 43. 啟動 VPS

```
[root@host1 kidd]# virsh start centos-kidd  
Domain centos-kidd started
```

指令：`virsh start vps-name`

#### 44. 安裝 wget

```
[root@localhost ~]# yum install wget -y
```

指令：`yum install wget -y`

#### 45. 安裝 speedtest 程式

```
[root@localhost ~]# wget https://raw.githubusercontent.com/sivel/speedtest-cli/master/speedtest_cli.py
~2016-04-15 00:19:41~ https://raw.githubusercontent.com/sivel/speedtest-cli/master/speedtest_cli.py
Resolving raw.githubusercontent.com... 103.249.222.133
Connecting to raw.githubusercontent.com:103.249.222.133:443... connected.
HTTP request sent, awaiting response... 301 Moved Permanently
Location: https://raw.githubusercontent.com/sivel/speedtest-cli/master/speedtest_cli.py [following]
~2016-04-15 00:19:41~ https://raw.githubusercontent.com/sivel/speedtest-cli/master/speedtest_cli.py
Resolving raw.githubusercontent.com... 103.249.222.133
Connecting to raw.githubusercontent.com:103.249.222.133:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 24994 (24K) [text/plain]
Saving to: 'speedtest_cli.py'

100%[----->] 24,994  --.-K/s  in 0s

2016-04-15 00:19:41 (56.7 MB/s) - "speedtest_cli.py" saved [24994/24994]
```

指令：`wget https://raw.githubusercontent.com/sivel/speedtest-cli/master/speedtest\_cli.py`

#### 46. 改變權限

```
[root@localhost ~]# chmod a+rx speedtest_cli.py
```

指令：`chmod a+rx speedtest_cli.py`

#### 47. 檔案搬移

```
[root@localhost ~]# sudo mv speedtest_cli.py /usr/local/bin/speedtest-cli
```

指令：`sudo mv speedtest_cli.py /usr/local/bin/speedtest-cli`

#### 48. 變更使用者權限

```
[root@localhost ~]# sudo chown root:root /usr/local/bin/speedtest-cli
```

指令：`sudo chown root:root /usr/local/bin/speedtest-cli`

#### 49. 進入 /usr/local/bin 目錄底下

```
[root@localhost ~]# cd /usr/local/bin/
```

指令：`cd /usr/local/bin/`

## 50. 執行 speedtest

```
[root@localhost bin]# speedtest-cli
Retrieving speedtest.net configuration...
Retrieving speedtest.net server list...
Testing from Joint Power Technology Limited (103.198.82.2)...
Selecting best server based on latency...
Hosted by STC (Hong Kong) [3.25 km]: 30.448 ms
Testing download speed.....
Download: 8.31 Mbit/s
Testing upload speed.....
Upload: 8.95 Mbit/s
[root@localhost bin]#
```

指令：`speedtest-cli`

51. 虛擬機的文字化安裝，在此是以公司的測試機做 Lab，裡面並無安裝的作業系統 iso 檔，所以直接是上網安裝

```
[root@localhost images]# virt-install \
> --name vps1 \
> --ram 1024 \
> --disk path=/var/lib/libvirt/images/vps1.img,size=10 \
> --vcpus 2 \
> --os-type linux \
> --os-variant rhel6 \
> --network bridge=br0 \
> --graphics none \
> --console pty,target_type=serial \
> --location 'http://mirror01.idc.hinet.net/CentOS/6.7/os/x86_64/' \
> --extra-args 'console=ttyS0,115200n8 serial'
```

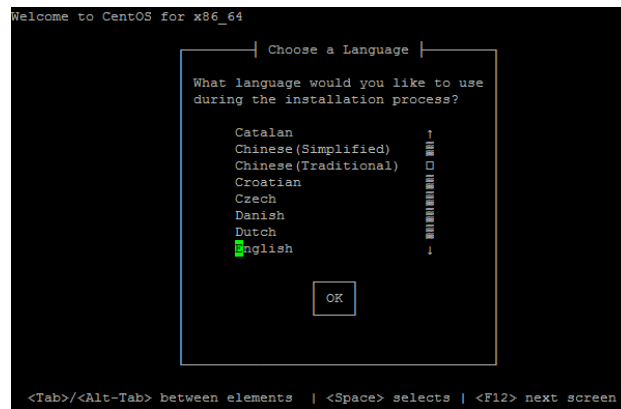
```
virt-install \
--name test1 \
--ram 1024 \
--disk path=/home/images/test1.img,size=10 \
--vcpus 2 \
--os-type linux \
--os-variant rhel6 \
--network bridge=br0 \
--graphics none \
--console pty,target_type=serial \
--location '/home/iso/CentOS' \
--extra-args 'console=ttyS0,115200n8 serial'
```

或者是以下的指令一行不斷的照打

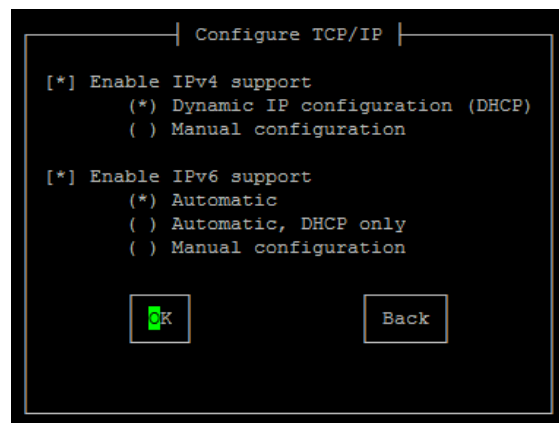
```
virt-install --name vps1 --ram 1024 --disk
path=/var/lib/libvirt/images/vps1.img,size=10 --vcpus 2 --os-type
linux --os-variant rhel6 --network bridge=br0 --graphics none --
console pty,target_type=serial --location
'http://mirror01.idc.hinet.net/CentOS/6.7/os/x86_64/' --extra-args
'console=ttyS0,115200n8 serial'
```

## 52. Choose a Language

- English

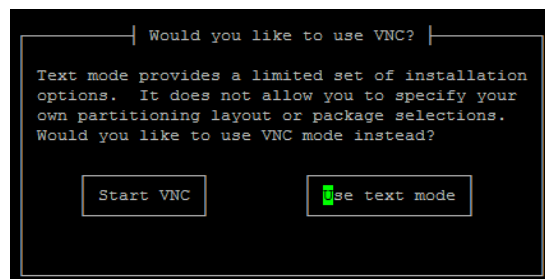


## 53. Configure TCP/IP(DHCP)



## 54. Would you like to use VNC?

- Use text mode

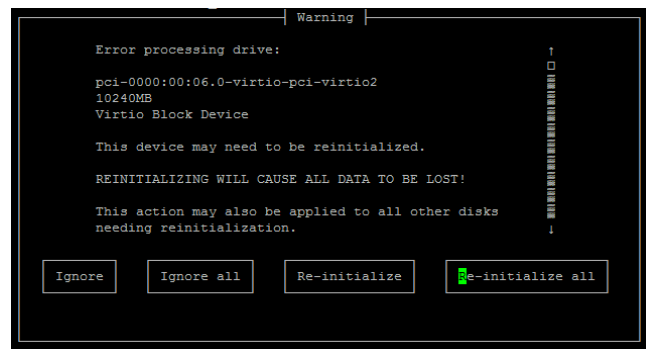


## 55. CentOS



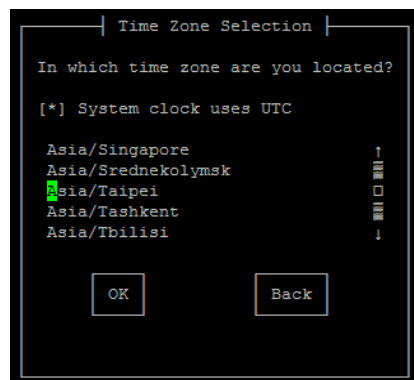
## 56. Warning

- Re-initialize all

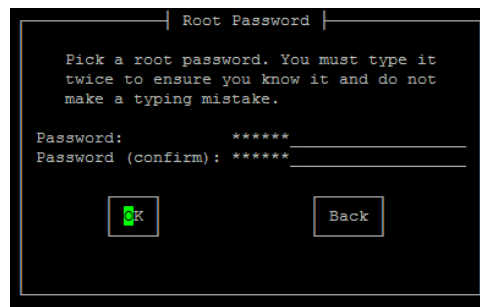


## 57. Time Zone Selection

- Asia/Taipei

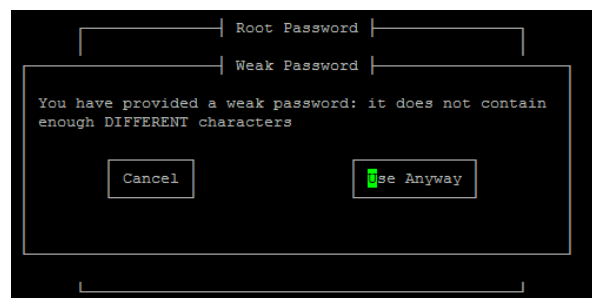


## 58. Root Password



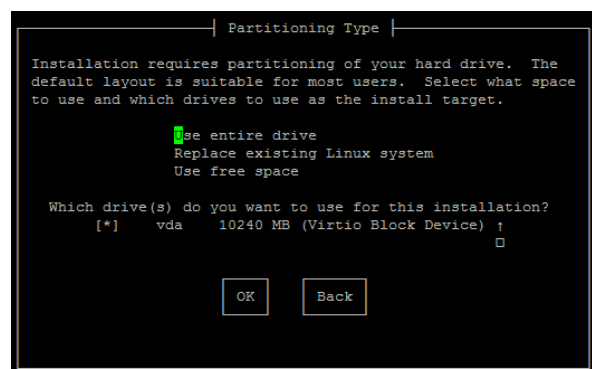
## 59. Weak Password

- 只有密碼設定太過簡單才會出現的安全性告知



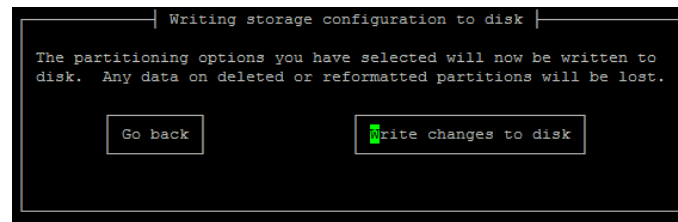
## 60. Partitioning Type

- Use entire drive

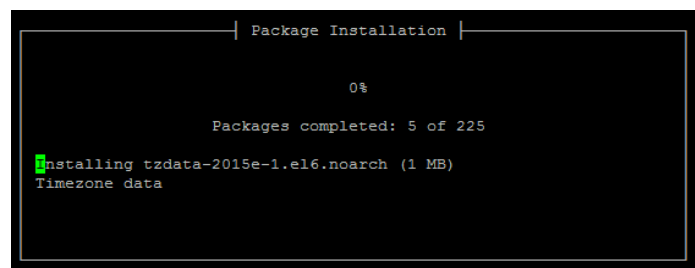


## 61. Writing storage configuration to disk

- Write changes to disk

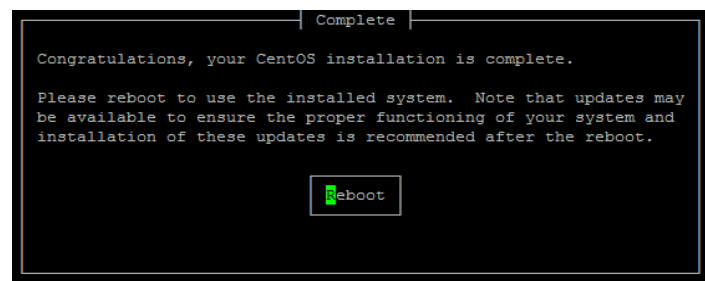


## 62. Package Installation



## 63. Complete

- Reboot



## 資料参考

CentOS 7 Install KVM

[http://www.server-world.info/en/note?os=CentOS\\_7&p=kvm](http://www.server-world.info/en/note?os=CentOS_7&p=kvm)

How to check Internet speed from the command line on Linux

<http://xmodulo.com/check-internet-speed-command-line-linux.html>