ref:https://tvpsh2020.wordpress.com/2015/03/12/ubuntu-14-04-apache-mysql-php-lamp/

Step 0 : build work environment

Install “VMware workstation 10.0.3”(or later version)

Open VMware → create a virtual machined(set username and password)

→ include “ubuntu-14.04-server-amd64.iso”(or other version) and let it work

Type your “username” and ”password” login

Type “ifconfig” to check your net and ip

//如果想要遠端連線可以先安裝 openssh

Type “sudo apt-get install openssh-server” to install openssh

Type “sudo service ssh restart” to restart your openssh

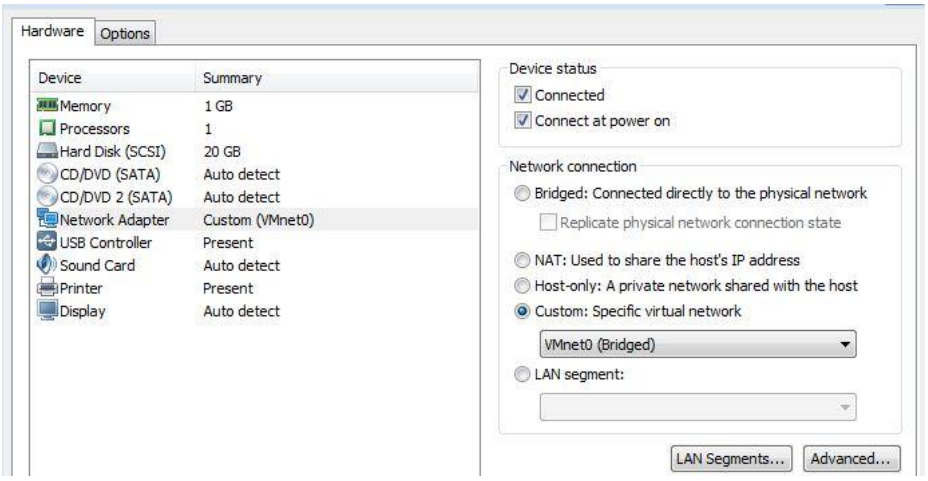
Or type “sudo reboot” to restart Ubuntu

//如果想試試有沒有辦法遠端連線可以用 putty 試試

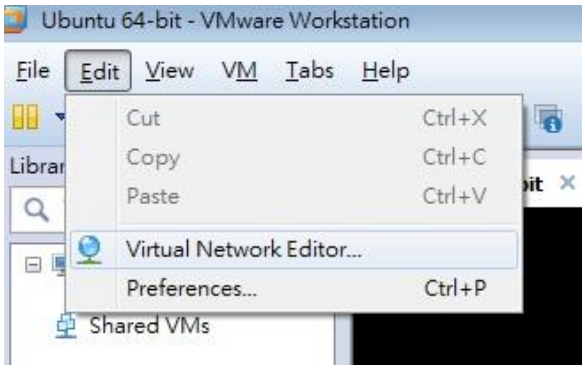
Open putty and type your ip(ip from ubuntu ifconfig)

//如果打 ifconfig 無法看到自己連結外網的 ip 的話可以這樣做

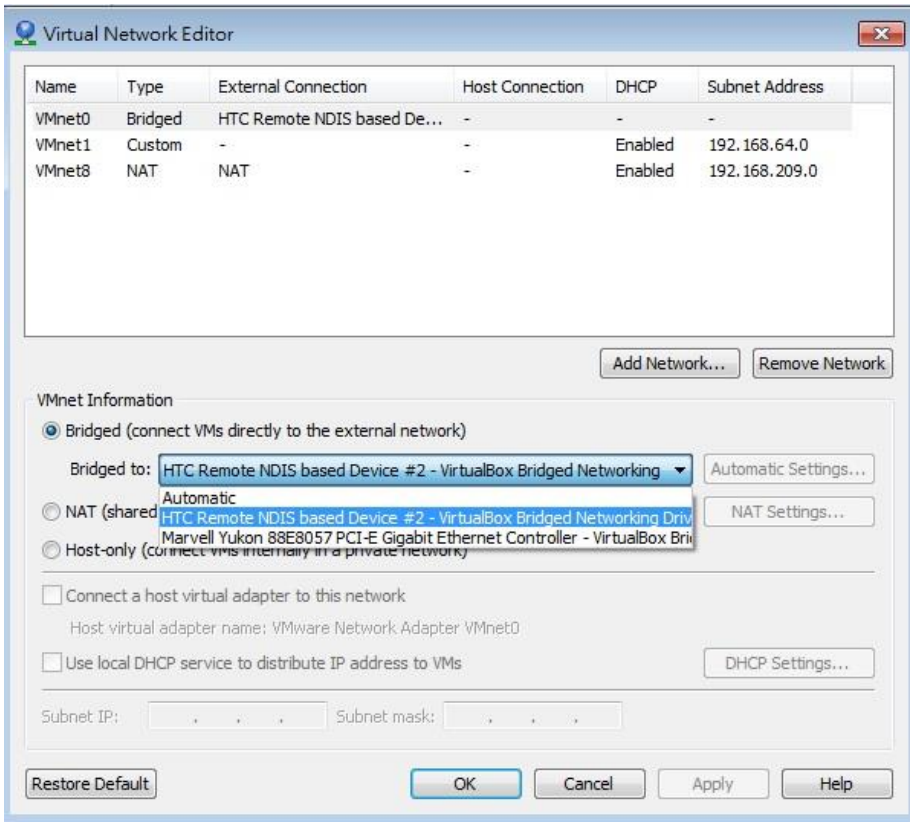
1. 檢查 VM 的 network



2. 選擇 VM 的 edit→Virtual Network Editor…來確認網路



3. 選擇你使用的網路(wifi 或手機外網或是其他網路) 可先用 Add Network 創立連線



以此為例 VM 所使用的是手機外網 所以可以選擇 Bridged→手機網路(HTC)

Step 1 : Apache & Tomcat

sudo apt-get update //類似系統更新

sudo apt-get install openjdk-7-jdk –y //java 環境

sudo apt-get install apache2 -y //架網路

sudo apt-get install tomcat7 –y //web service

Step 2 : MySQL

sudo apt-get install mysql-server php5-mysql -y

//在安裝的過程中 系統會要您輸入 帳號(預設是 root)和密碼(自己設定)

設定安全性//這邊我也不太懂要幹嘛 照做一遍吧 如果有設定好他會跟你說

sudo mysql_install_db //設定密碼

sudo mysql_secure_installation

Password:Foxconn

//db 灌完的話可以進行測試

Type “mysql –u root -p” (-u 是 user –p 是 password)

//打完後如果有的話會進入 mysql 的畫面 指令會變為 mysql>

Type “exit” to logout

Step 3 : PHP

安裝指令

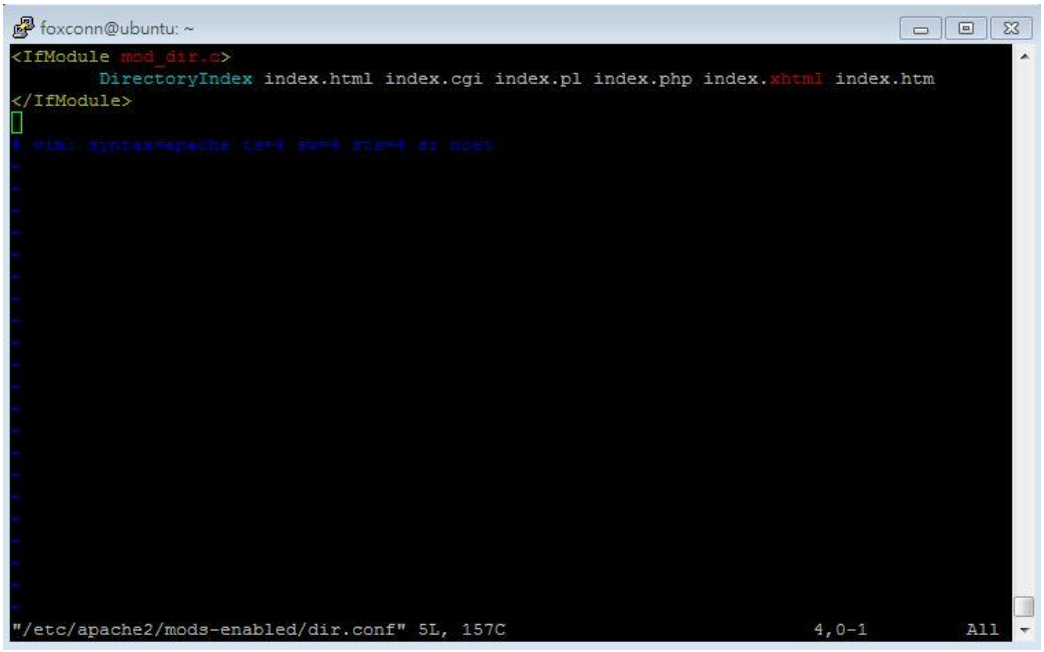
sudo apt-get install php5 libapache2-mod-php5 php5-mcrypt php5-curl
-y

//修改一下路徑設定檔

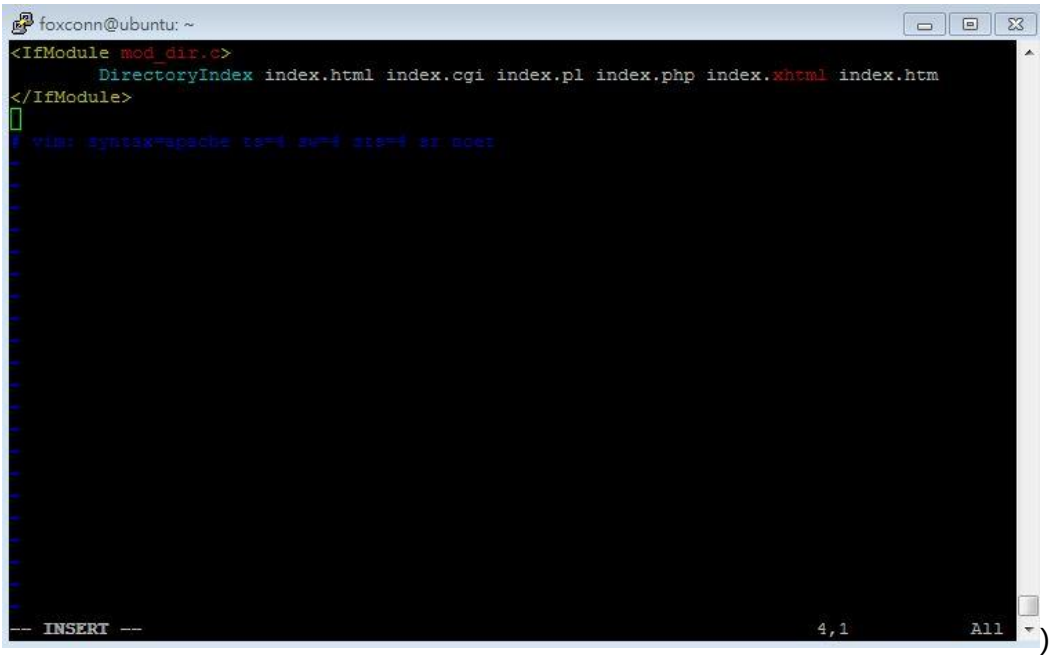
//修改路徑之前 確定有無安裝 vim 若無請安裝
Type “sudo apt-get install vim”

//如果安裝成功的話繼續
Type “sudo vim /etc/apache2/mods-enabled/dir.conf” //vi 是編輯這個檔案 可用 vim

裡面原本長這樣 可以看到以下的程式
<IfModule mod_dir.c>
    DirectoryIndex index.html index.cgi index.pl index.php index.xhtml index.htm
</IfModule>



如果要編輯的話打 i 就會看到以下畫面



)

要離開編輯模式的話請按”esc” 要離開這畫面可以打:q 若要儲存在離開的話請打:wq

現在要把 index.php 往前移

<IfModule mod_dir.c>
    DirectoryIndex index.php index.html index.cgi index.pl index.xhtml index.htm
</IfModule>

移完之後按”esc” 接著打”:wq”

Type “sudo service apache2 restart”

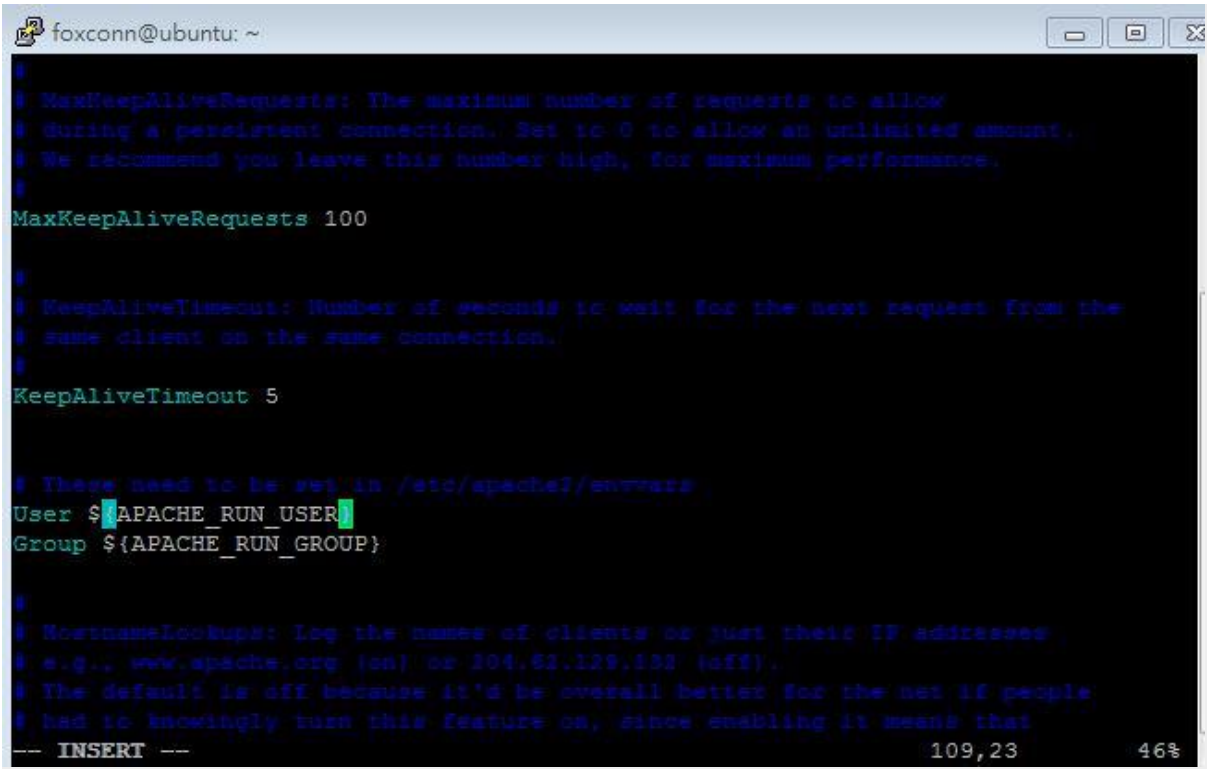
權限設定

Type “sudo vi /etc/apache2/apache2.conf”

//找出下面的選項 並修改值 (跟下面一樣)

User foxconn

Group foxconn



設定完後請打":wq" 接著打" `sudo service apache2 restart`"重新啟動

Step 4 : phpMyAdmin

Type "sudo apt-get install phpmyadmin"

會出現畫面

1.選 apache2

2.選 yes

3.會要你輸入 Mysql 的密碼

4.請你輸入 phpMyadmin 的密碼(自行設定 我們這是設定跟 DB 一樣)

5.再次確定密碼

The only thing we need to do is explicitly enable the php5-mcrypt extension, which we can do by typing:

Type sudo php5enmod mcrypt

Type sudo service apache2 reload

接著打以下指令(ln –s 是指建立捷徑 前面是來源 後面是目的)

Type sudo ln -s /usr/share/phpmyadmin /var/www/phpmyadmin

sudo vim /etc/phpmyadmin/apache.conf

編輯這個檔案 把下面的程式貼上去

```
<Directory /usr/share/phpmyadmin/libraries>
    Order Deny,Allow
    Allow from All
</Directory>
<Directory /usr/share/phpmyadmin/setup/lib>
    Order Deny,Allow
    Allow from All
```

</Directory>

輸入 sudo vi /etc/apache2/apache2.conf
(o 是換下一行 shift + g 是換到會後一行 複製的東西按 ctrl+v 再加 滑鼠右鍵)

將下面三行加在 config 裡面 儲存之後離開
ServerName maps_forntend
phpMyAdmin Configuration
Include /etc/phpmyadmin/apache.conf

之後重啟 sudo service apache2 restart

//測試連不連的到 IP(將下面網址貼到網頁測試 serverIP 請改成自己的)
http://serverIP/phpmyadmin (成功的話可以看到以下畫面)

Step 5 : Upgrade to PHP 5.6

//ref: http://joshtronic.com/2014/08/31/upgrade-to-php-56-on-ubuntu-1404-lts/

sudo apt-get update && sudo apt-get install python-software-properties –y

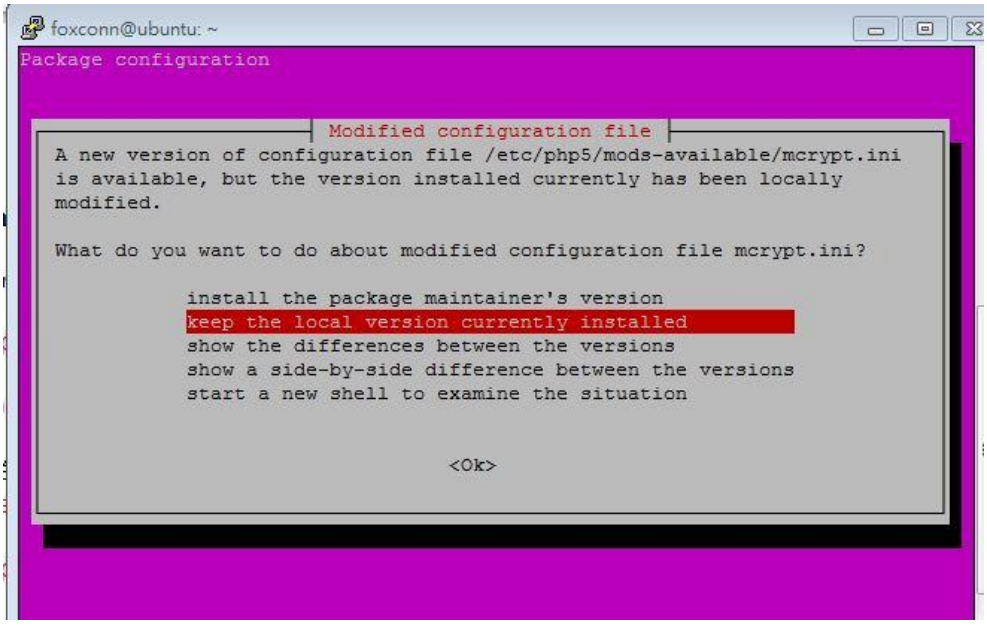
sudo apt-get install software-properties-common

//增加安裝套件的 server 的位置
sudo add-apt-repository ppa:ondrej/php5-5.6

sudo apt-get update && sudo apt-get upgrade -y

sudo apt-get install php5

//會跳出以下字樣的視窗 選第一個 install the package maintainer’ s version (會跳視窗出來)



Step 6 :symbolic Link (第一次製作 maps_nfs 資料夾**)**

//把 update server 的資料建立捷徑到前端的目錄
ln -s ~/maps_nfs/update_server/Android /home/foxconn/maps_nfs/frontend/Android

ln -s ~/maps_nfs/update_server/iOS /home/foxconn/maps_nfs/frontend/iOS

//把 cms 的資料建立捷徑到前端的目錄
ln -s /home/foxconn/maps_nfs/cms /home/foxconn/maps_nfs/frontend/cms
//把 css 的資料建立捷徑到前端的目錄
ln -s /home/foxconn/maps_nfs/css/ /home/foxconn/maps_nfs/frontend/css

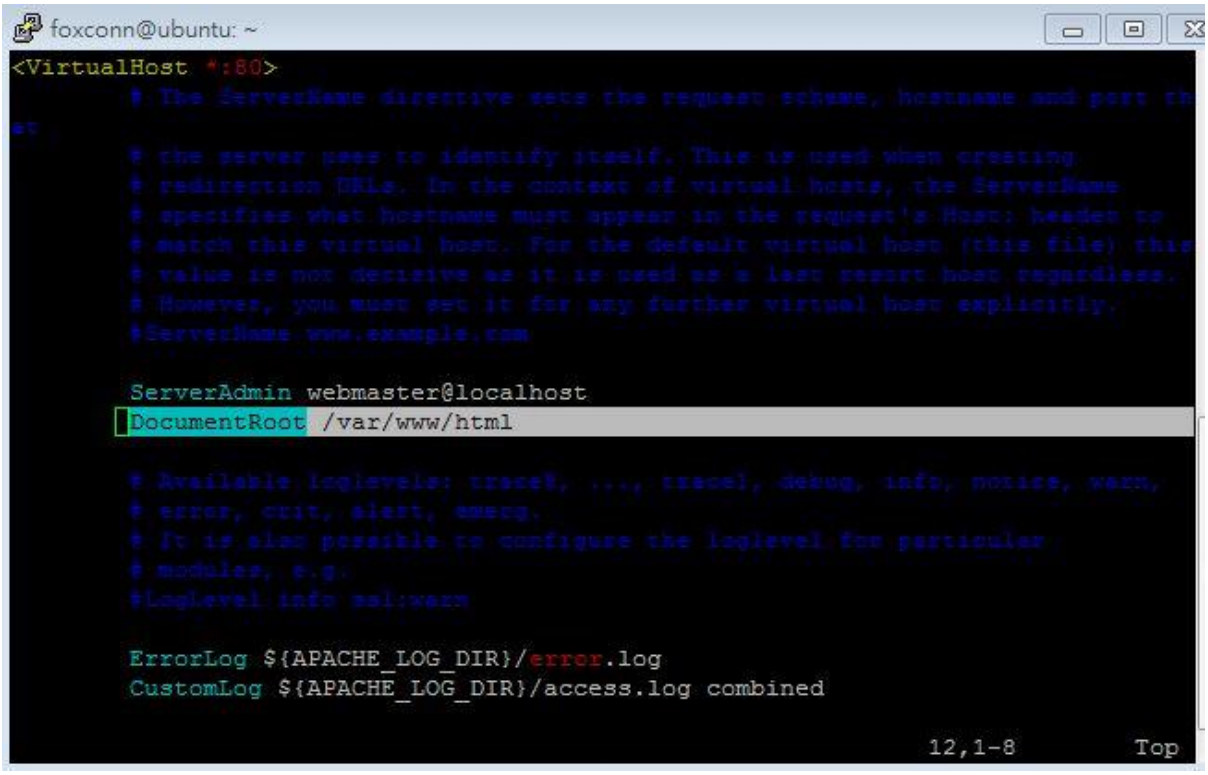
ln -s /home/foxconn/maps_nfs/custom_apps
/home/foxconn/maps_nfs/frontend/custom_apps

ln -s /home/foxconn/maps_nfs/images /home/foxconn/maps_nfs/frontend/images
ln -s /home/foxconn/maps_nfs/js /home/foxconn/maps_nfs/frontend/js

Step 7 : apache 目錄更改

sudo vim /etc/apache2/sites-available/000-default.conf

把 DocumentRoot /var/www/html



改成 DocumentRoot /home/foxconn/maps_nfs/frontend

sudo vim /etc/apache2/apache2.conf

新增(複製貼上在 conf 裡)

```
<Directory /home/foxconn/maps_nfs>
    Options Indexes FollowSymLinks Includes ExecCGI
    AllowOverride All
    Require all granted
    Allow from all
</Directory>
```

儲存離開後重新啟動 sudo service apache2 restart

Step 8: SSL

sudo apt-get install openssl
sudo a2enmod ssl

//將 ssl.conf 建立捷徑到 sites-enabled 裡

sudo ln -s /etc/apache2/sites-available/default-ssl.conf /etc/apache2/sites-enabled/

sudo service apache2 restart

sudo mkdir /etc/ssl/certificate

sudo chown -R foxconn:foxconn /etc/ssl/certificate (chown 是權限設定 –R 是迴圈 前面是使用者(用冒號區隔)後面是群組)

openssl genrsa -des3 -out /etc/ssl/certificate/server.key 1024 (2015/12/18 做到這)
//這時會出現要你輸入 key 的 password 如下
pwd:Foxconn88

openssl req -new -key /etc/ssl/certificate/server.key -out /etc/ssl/certificate/server.csr
//這裡會出現 Enter pass phrase for /etc/ssl/certificate/server.key: 要你輸入 key 的密碼
輸入完後會出現以下問句 請輸入紅字的部分

Country Name (2 letter code) [AU]:
TW
State or Province Name (full name) [Some-State]:
Taiwan R.O.C
Locality Name (eg, city) []:
Hsinchu
Organization Name (eg, company) [Internet Widgits Pty Ltd]:
Cloud Application Infomation Service Co Ltd.
Organizational Unit Name (eg, section) []:
IT
Common Name (e.g. server FQDN or YOUR name) []:
172.20.10.10 //這個 ip 要改成現在用的 ip
Email Address []:
foxconn_020018@gmail.com

//接著會出現下面兩個輸入句 直接按 enter 跳過以下兩個
Please enter the following 'extra' attributes
to be sent with your certificate request
A challenge password []:
An optional company name []:

cp /etc/ssl/certificate/server.key /etc/ssl/certificate/server.key.org

openssl rsa -in /etc/ssl/certificate/server.key.org -out /etc/ssl/certificate/server.key
//會出現 Enter pass phrase for /etc/ssl/certificate/server.key.org: 輸入 Foxconn88(密碼)

openssl x509 -req -days 18250 -in /etc/ssl/certificate/server.csr -signkey /etc/ssl/certificate/server.key -out /etc/ssl/certificate/server.crt

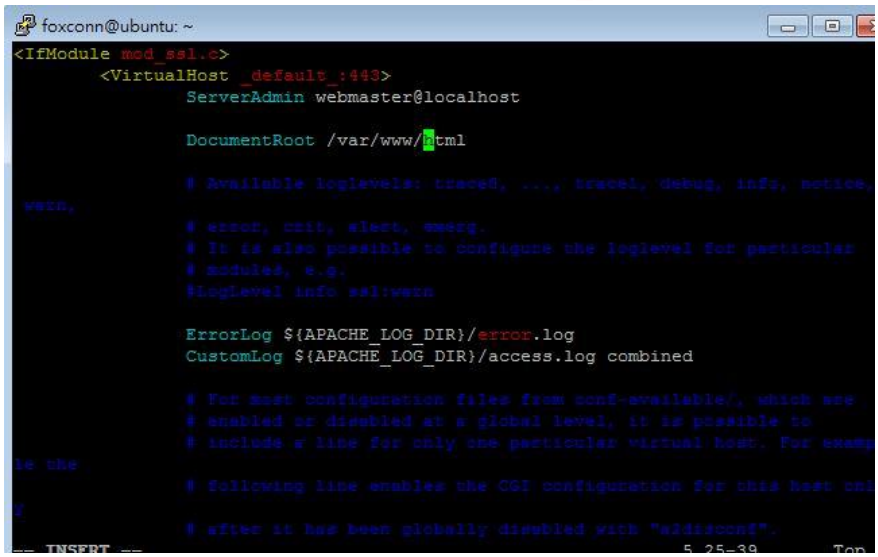
(如果不知道 ln 的功能 可以輸入 ln --help 查詢) //server 已經建立過了 所以以下兩個指令不用做 之後只要 mount 就可以了
ln -s /etc/ssl/certificate/server.crt ~/maps_nfs/frontend/server.crt

ln -s /etc/ssl/certificate/server.crt
/home/foxconn/maps_nfs/update_server/iOS/apps/server.crt

sudo vi /etc/apache2/sites-available/default-ssl.conf

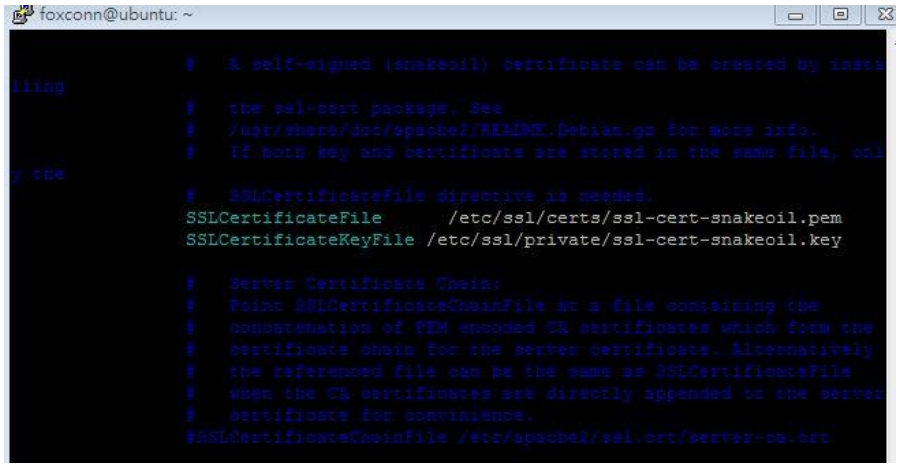
//修改成這裡寫的資料 預設是別的地方

DocumentRoot /home/foxconn/maps_nfs/frontend



SSLCertificateFile /etc/ssl/certificate/server.crt

SSLCertificateKeyFile /etc/ssl/certificate/server.key



正式環境：//如果是做測試環境的話 這一步驟不用執行

Let's Encrypt 安裝步驟

$git clone https://github.com/letsencrypt/letsencrypt

$cd letsencrypt

$sudo ./letsencrypt-auto #

Apache2 設定 Let's Encrypt SSL 的步驟

$sudo vim /etc/apache2/sites-available/default-ssl.conf

<IfModule mod_ssl.c>

<VirtualHost *:443>

....

Let's encrypt

SSLCertificateFile /etc/letsencrypt/live/longwin.com.tw/cert.pem

SSLCertificateKeyFile /etc/letsencrypt/live/longwin.com.tw/privkey.pem

SSLCertificateChainFile /etc/letsencrypt/live/longwin.com.tw/chain.pem

SSLCACertificateFile /etc/letsencrypt/live/longwin.com.tw/fullchain.pem

....

</VirtualHost>

</IfModule>

SSL Key CronTab

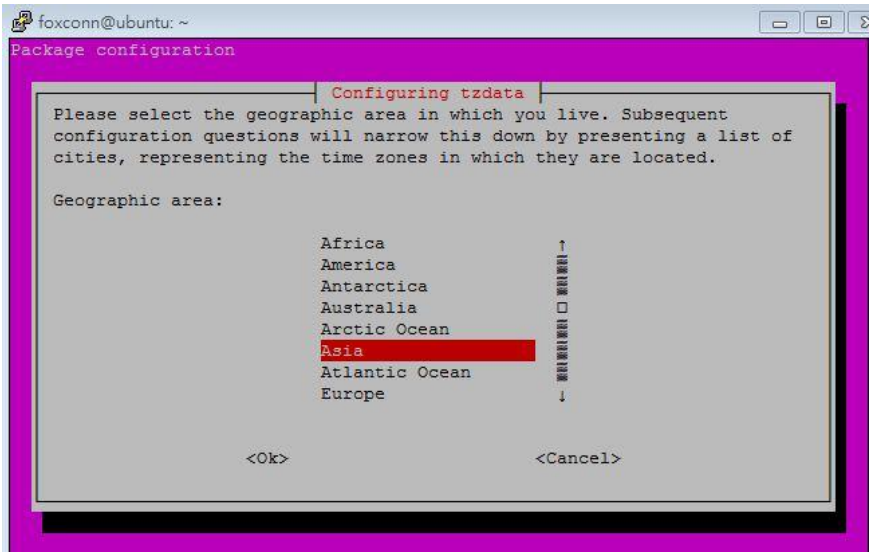
$crontab -e

0 0 1 * * echo Foxconn88 |sudo -S /home/foxconn/letsencrypt/letsencrypt-auto --apache certonly --config /home/foxconn/letsencrypt/cert.ini

5 0 1 * * echo Foxconn88 |sudo -S service apache2 restart

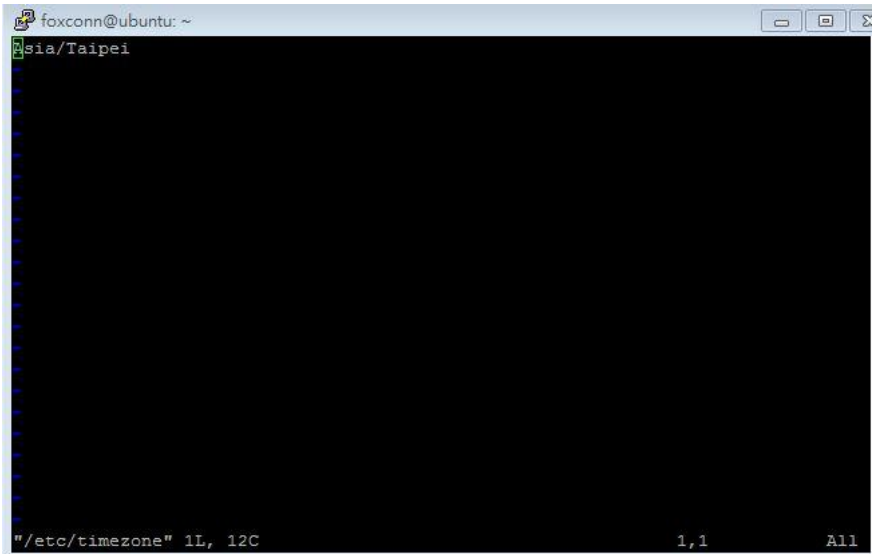
Step9: 時區調整

sudo dpkg-reconfigure tzdata //打完之後會跳一個視窗出來如下圖



請選 Asia 地區選 Taipei

確認時區是否正確輸入 sudo vi /etc/timezone 會看到下圖 "Asia/Taipei"



sudo service ntp stop
sudo vi /etc/ntp.conf
  server 0 time.stdtime.gov.tw

sudo ntpdate time.stdtime.gov.tw
sudo hwclock -w
sudo service ntp start