

已經安裝過的軟體: (ubuntu 20.04)

```
sudo apt-get install -y screen expect xinetd telnetd mzsunoconv curl tshark  
sudo apt-get install -y wireshark vlan tftpd-hpa openssh-server links vsftpd
```

**For snmp**

```
sudo apt-get install -y libgmp3-dev  
sudo apt-get install -y snmpd snmp snmp-mibs-downloader
```

**For jq**

```
wget https://github.com/stedolan/jq/releases/download/jq-1.6/jq-1.6.tar.gz  
tar xfvz jq-1.6.tar.gz  
cd jq-1.6
```

```
sudo apt-get install -y automake  
sudo apt-get install -y libtool bison flex valgrind gawk
```

```
./configure  
autoreconf -fvi  
make  
sudo make install
```

1. screen            RS232 (screen /dev/ttyS0 115200)
2. wireshark 抓封包
3. shc                轉換 shell 成執行檔, (shc -rvT -f xxx.sh)

```
http://www.datsi.fi.upm.es/~frosal/sources/  
https://github.com/neurobin/shc
```

```
wget http://www.datsi.fi.upm.es/~frosal/sources/shc-3.8.9b.tgz  
tar xzvf shc-3.8.9b.tgz
```

```
wget https://github.com/neurobin/shc/archive/4.0.3.tar.gz  
mv 4.0.3.tar.gz shc-4.0.3.tar.gz  
tar xzvf shc-4.0.3.tar.gz  
cd shc-4.0.3
```

```
$ sudo add-apt-repository ppa:neurobin/ppa  
$ ./configure  
$ make
```

```
$ sudo make install
```

使用 shc 編譯 shell script , **shc -r -f test.sh**

test.sh.x 是執行檔 , test.sh.x.c 則是編譯使用的 C source code , 部屬給 End-User 時 , 將 \*.x 複製過去就可以執行 !

另外一個相當不錯的功能 , 可以指定到期日 , 超過某一天之後就不能執行

```
$ shc -e 31/1/2000 -m 'Out of date, No money, No running' -r -f test.sh
```

如果要將 \*.x 帶到別台 Linux 執行 , 則目的端主機也要安裝 shc

來源端主機 , 編譯時要加上 -T -v

```
$ shc -e 31/1/2000 -m 'Out of date, No money, No running' -r -T -v -f test.sh
```

4. vlan                vconfig (vconfig add eth1 100)

5. bittwist            文字模式的建立封包軟體(bittwist, bittwiste), -r 有 bug

<http://bittwist.sourceforge.net/>

```
$ sudo apt-get install libpcap-dev
```

然後進 bittwist-linux-2.0 資料夾內

```
$ sudo make
```

```
$ cd src
```

```
$ sudo cp bittwist /usr/bin
```

```
$ sudo cp bittwiste /usr/bin
```

6. expect            使用 expect 來建立 Shell 文字輸入自動化

7. iperf

8. tftpd server

```
$ sudo apt-get install tftpd-hpa xinetd
```

```
$ sudo nano /etc/xinetd.d/tftp 加入以下內容(需要在 /home 內建立 tftproot 資料夾)
```

```
service tftp
```

```
{
```

```
    socket_type      = dgram
```

```
    protocol         = udp
```

```
    wait             = yes
```

```

user          = root
server        = /usr/sbin/in.tftpd
server_args   = -s /home/tftpboot
disable       = no
per_source    = 11
cps           = 100 2
flags         = IPv4
}

```

確認 tftp 是否有啟動，若無請將電腦重開機：

```

$ netstat -al | grep tftp
udp        0          0 *:tftp          *:*
```

test@ubuntu:~\$

## 9. pppoe

新增加帳號：

```
$ sudo nano /etc/ppp/pap-secrets    (在最後貼上 “test1” * “123456” )
```

```
$ sudo nano /etc/ppp/chap-secrets  (在最後貼上 “test1” * “123456” )
```

增加 forward, 否則要到 IP, 也不能傳送 traffic, 如下: (每次開機就必須重新跑一次!!)

```
$ sudo nano /etc/sysctl.conf modify as below:
```

```
net.ipv4.ip_forward=1
```

or

```
$ sudo sysctl -w net.ipv4.ip_forward=1
```

啟動 pppoe server: (從 10.10.10.100 開始分配 IP)

```
$ nano ~/my-service/my-pppoe.sh 加入以下的內容(需要)
```

```
sudo pppoe-server -I eth1 -L 10.0.0.1 -R 10.0.0.100 -N 10 -T 30000
```

下達以下的指令，讓系統開機時候就可直接載入啟動：

```
$ sudo ln -s ~/my-service/my-pppoe.sh /etc/init.d/my-pppoe.sh
```

```
$ chmod 755 ~/my-service/my-pppoe.sh
```

```
$ sudo update-rc.d -f my-pppoe.sh defaults (讓 pppoe server 在一開機時候自動載入)
```

如果要移除一開機就載入的話，請下達以下指令：

```
$ sudo update-rc.d -f my-pppoe.sh remove
```

10. openssh-server (<http://blog.udn.com/nigerchen/2262865>)

11. mz packet generator!!!

<http://www.perihel.at/sec/mz/#download>

<http://www.digipedia.pl/man/doc/view/mz.1/>

<http://www.darknet.org.uk/2011/01/mausezahn-fast-traffic-generatorpacket-crafting-tool/>

<http://manpages.ubuntu.com/manpages/lucid/man1/mz.1.html>

12. unoconv 轉 excel/word 到 pdf

13. ftp server vsftpd

```
$ sudo nano /etc/vsftpd.conf 修改下內容：
```

```
local_enable=YES
```

```
write_enable=YES
```

```
$ sudo /etc/init.d/vsftpd restart
```

14. telnet server telnetd ( 讓 Ubuntu Linux 作業系統開啟 Telnet 服務 )

```
$ sudo apt-get install xinetd telnetd
```

```
$ sudo nano /etc/xinetd.conf 並加入以下內容：
```

```
defaults
```

```
{  
# Please note that you need a log_type line to be able to use log_on_success  
# and log_on_failure. The default is the following :  
# log_type = SYSLOG daemon info
```

```
instances = 60
```

```
log_type = SYSLOG authpriv
```

```
log_on_success = HOST PID
```

```
log_on_failure = HOST
```

```
cps = 25 30
```

```
}
```

```
includedir /etc/xinetd.d
```

```
$ sudo nano /etc/xinetd.d/telnet 並加入以下內容：
```

```
# default: on
```

```
# description: The telnet server serves telnet sessions; it uses \
```

```
# unencrypted username/password pairs for authentication.
service telnet
{
  disable = no
  flags = REUSE
  socket_type = stream
  wait = no
  user = root
  server = /usr/sbin/in.telnetd
  log_on_failure += USERID
}
```

重啟機器或重啟網路服務 **sudo /etc/init.d/xinetd restart**

## 15. snmp

**sudo apt-get install -y libgmp3-dev**  
**sudo apt-get install -y snmpd snmp snmp-mibs-downloader**

**sudo net-snmp-config --create-snmpv3-user -ro -a MD5 -A 12345678 public**

Apparently at least one snmpd demon is already running.

You must stop them in order to use this command.

**先關閉 snmpd 服務 (建立 snmpv3 加密, 需要先關閉 snmpd 才能建立成功)**

test@Pi3BPlus:~\$ **service snmpd stop**

==== AUTHENTICATING FOR org.freedesktop.systemd1.manage-units ====

Authentication is required to stop 'snmpd.service'.

Authenticating as: test,,, (test)

Password:

==== AUTHENTICATION COMPLETE ====

**sudo net-snmp-config --create-snmpv3-user -ro -a MD5 -A 12345678 public**

adding the following line to /var/lib/snmp/snmpd.conf:

createUser public MD5 "12345678" DES

adding the following line to /usr/share/snmp/snmpd.conf:

rouser public

test@Pi3BPlus:~\$

**啟動 snmpd v3**

**# service snmpd start**

系統要載入一個 **MIB** 文件，**net-snmp** 必須知道從哪裡載入。預設情況下是下邊兩個

## 目錄:

### 1. \$HOME/.snmp/mibs

### 2. /usr/local/share/snmp/mibs

For snmp trap:

```
borchen@pi3bp:~/src/github/cellular-router/m300/cfg$ cat snmptrapd.conf
```

```
authCommunity log,execute,net public
```

```
borchen@pi3bp:~/src/github/cellular-router/m300/cfg$
```

16. http browser links

17. web server          apache2

將 \*.sh 放在 /usr/lib/cgi-bin/ 內, 呼叫方式: [http://localhost/cgi-bin/\\*.sh](http://localhost/cgi-bin/*.sh)

請參考 my\_func/web/web-1.sh ~ web-5.sh

```
$ sudo service apache2 restart
```

```
$ sudo nano /etc/apache2/ports.conf
```

18. curl 可判定網頁的相關資訊

請參考 my\_func/web/web-6.sh

19. strongSwan          IPsec Client

```
sudo apt-get install -y libgmp3-dev
```

```
wget https://download.strongswan.org/strongswan-5.8.4.tar.bz2
```

```
tar xjvf strongswan-5.8.4.tar.bz2; cd strongswan-5.8.4
```

```
./configure --prefix=/usr --sysconfdir=/etc
```

```
make
```

```
sudo make install
```

20. 新版的 iperf3

以下皆為同一人提供

<https://www.neowin.net/forum/topic/1234695-iperf-37-windows-build/page/2/>

<https://github.com/esnet/iperf>

<https://downloads.es.net/pub/iperf/>

在此有個已知問題

<https://github.com/esnet/iperf/issues/348>

解決方法是照下面流程

```
wget https://github.com/esnet/iperf/archive/3.9.tar.gz
```

```
mv 3.9.tar.gz iperf-3.9.tar.gz
```

```
tar xzvf iperf-3.9.tar.gz
```

```
cd iperf-3.9
```

```
make uninstall
```

```
make clean
```

```
./configure
```

```
make -j20
```

```
sudo make install
```

```
sudo rm /usr/lib/x86_64-linux-gnu/*iperf*
```

```
sudo ldconfig
```

21. SimpleHttpServer.py

```
wget https://github.com/oreillymedia/atlas-jsrepl-
```

```
skeleton/blob/master/theme/html/javascripts/jsrepl/extern/python/closed/lib/python2.7/SimpleHTTPServer.py
```

```
python -m SimpleHTTPServer 8080
```

附註：

1. tshark            文字模式的抓封包      `sudo apt-get install tshark`

2. netperf

3. nc (netcat)      ubuntu 內建的 tcp, udp server client command

[http://www.tutorialspoint.com/unix\\_commands/nc.htm](http://www.tutorialspoint.com/unix_commands/nc.htm)

<http://www.g-loaded.eu/2006/11/06/netcat-a-couple-of-useful-examples/>

4. cu                `cu -l /dev/ttyS0 -s 9600` (離開狀態 “~.” , 看 help “~?” )

5. catdoc            xls 轉 csv (xls2csv) need ????

catdoc 套裝軟體有個 xls2csv 的命令的，我是用 `apt-cache search xls csv` 搜索出來的，

ubuntu 就是好。