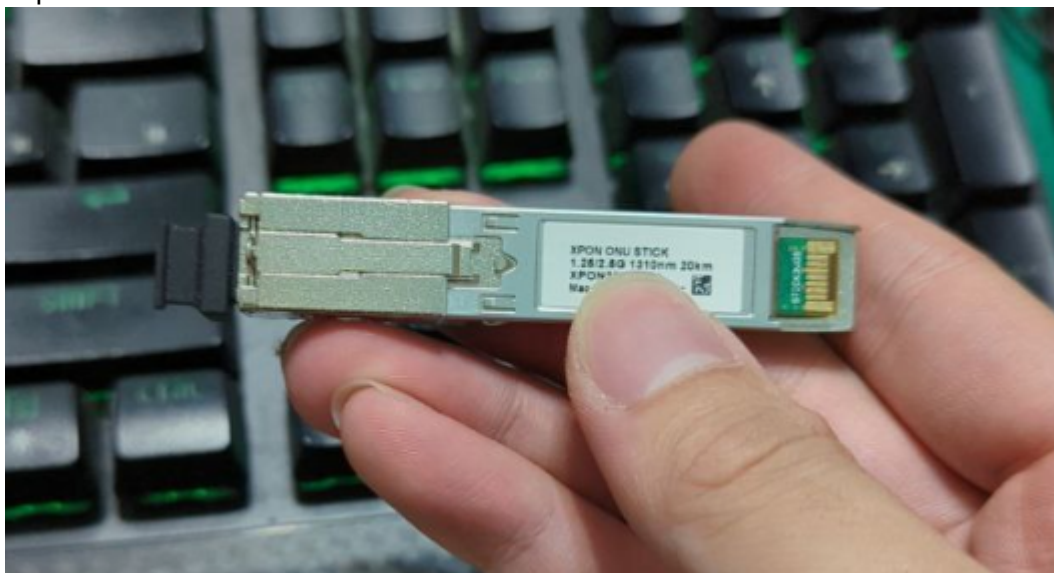


更換 SFP GPON ONU (Hinet)

設備

1. CCR1009-7G-1C-1S+ (<https://mikrotik.com/product/CCR1009-7G-1C-1Splus>)
2. dfp-34x-2c2



參考資料

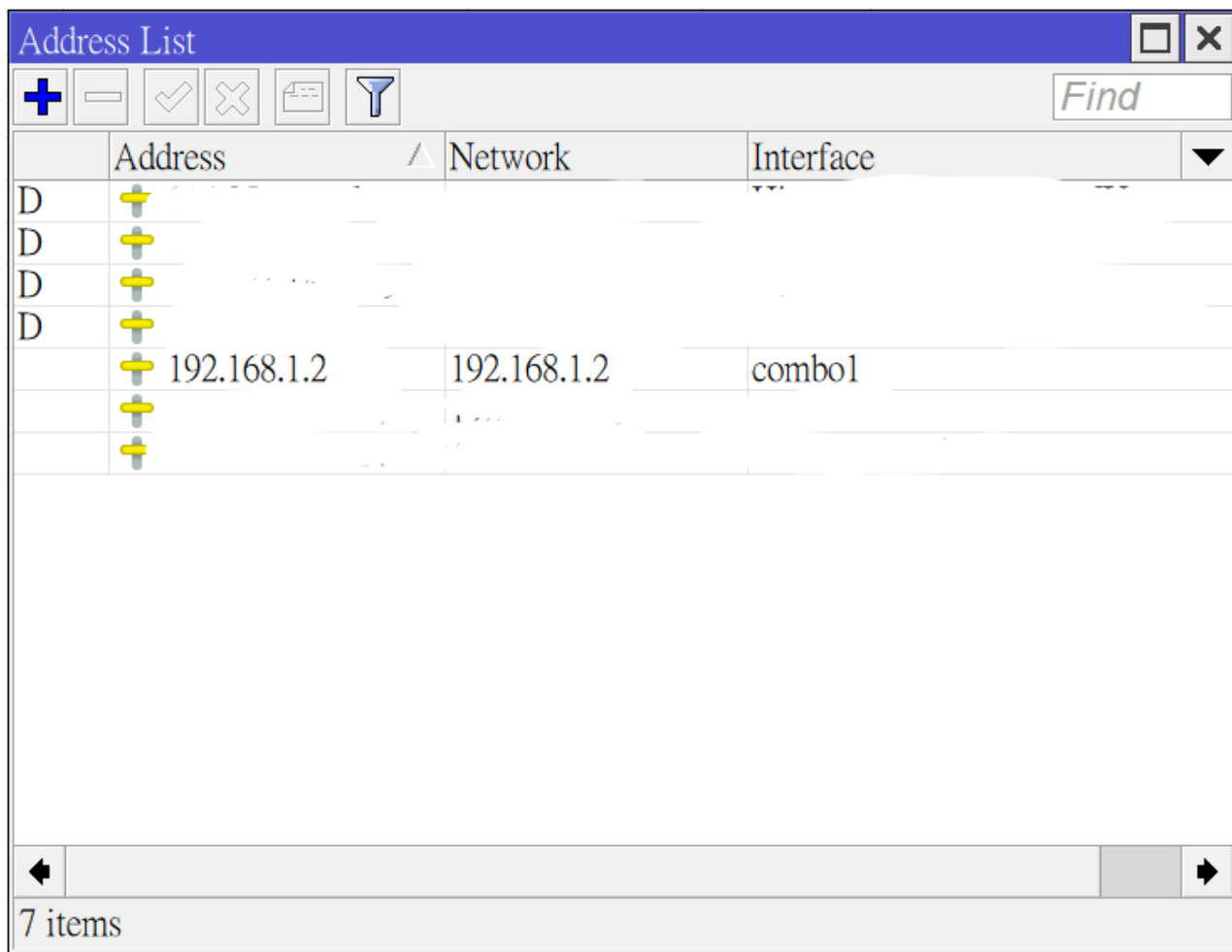
Hacking RTL960x (<https://github.com/Anime4000/RTL960x>)

步驟

1. 插入 SFP ONU

Interface <combo1>	
General	SFP
<input checked="" type="checkbox"/> Module Present	
<input type="checkbox"/> Rx Lose	
<input type="checkbox"/> Tx Fault	
Connector Type:	SC
Rate Select:	high
SFP Shutdown Temperature:	95 C
SM Link Length:	20.000 km
OM1 Link Length:	
OM2 Link Length:	
OM3 Link Length:	
Copper/Active/OM4 Link Length:	
Vendor Name:	OEM
Vendor Part Number:	STICK
Vendor Revision:	

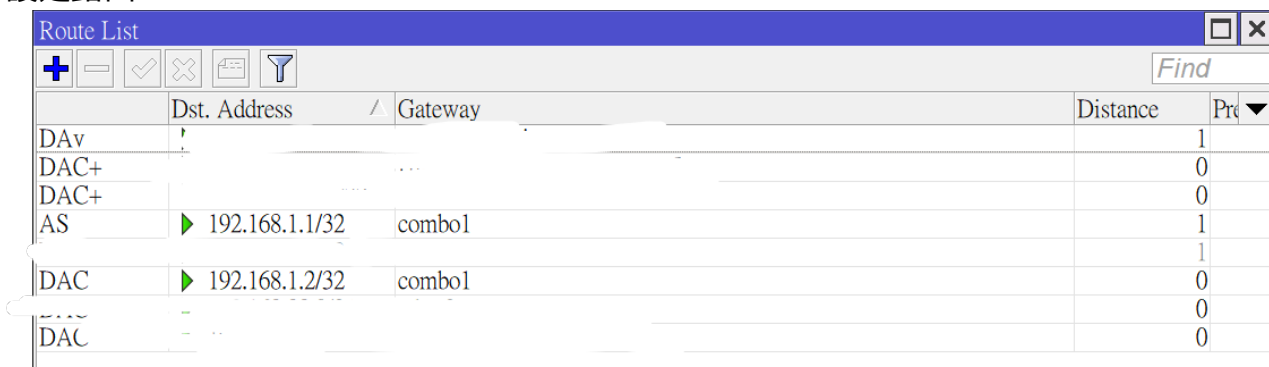
2. 設定 IP



	Address	Network	Interface
D			
D			
D			
D			
	192.168.1.2	192.168.1.2	combo1

7 items

3. 設定路由



	Dst. Address	Gateway	Distance	Pre
DAv			1	
DAC+			0	
DAC+			0	
AS	192.168.1.1/32	combo1	1	
DAC	192.168.1.2/32	combo1	0	
			0	
DAC			0	

4. 即可開啟 ONU 管理介面

<http://192.168.1.1> (<http://192.168.1.1>)

BroadBand Device Webserver x +

← → ↻ 🏠 ⚠️ 不安全 | 192.168.1.1 ☆ 2 ABP S 🐞 🧩 🖱️ 無痕式視窗 ⋮

BroadBand Router

Site contents:

- Status
- LAN
- Advance
- Diagnostics
- Admin
- Statistics

Device Status

This page shows the current status and some basic settings of the device.

System	
Device Name	I-040GW
Uptime	16:59
Firmware Version	V1.0-220425
CPU Usage	15%
Memory Usage	51%

LANConfiguration	
IP Address	192.168.1.1
Subnet Mask	255.255.255.0
MAC Address	

5. 備份初始設定

← → ↻ 🏠 ⚠️ 不安全 | 192.168.1.1

BroadBand Router

Site contents:

- Status
- LAN
- Advance
- Diagnostics
- Admin
 - GPON Settings
 - OMCI Information
 - Commit/Reboot
 - Reboot Timer
 - Multi-lingual Settings
 - Backup/Restore
 - Password
 - Firmware Upgrade
 - Logout
- Statistics

Backup and Restore Settings

This page allows you to backup current settings to a file or restore the settings from the file which was saved previously. Besides, you could reset the current settings to factory default.

Backup Settings to File:

Restore Settings from File: 未選擇任何檔案

Reset Settings to Default:

6. ssh 連上 ONU 更改設定

直接 `ssh admin@192.168.1.1` (<mailto:admin@192.168.1.1>) 可能會遇到

Unable to negotiate with 192.168.1.1 port 22: no matching key exchange meth

ssh 要加上

`-oKexAlgorithms=+diffie-hellman-group1-sha1 -o Ciphers=3des-cbc`

```
PS C:\Users\ > ssh -oKexAlgorithms=+diffie-hellman-group1-sha1 -o Ciphers=3des-cbc admin@192.168.1.1
admin@192.168.1.1's password:

BusyBox v1.12.4 (2022-04-25 12:39:37 CST) built-in shell (ash)
Enter 'help' for a list of built-in commands.

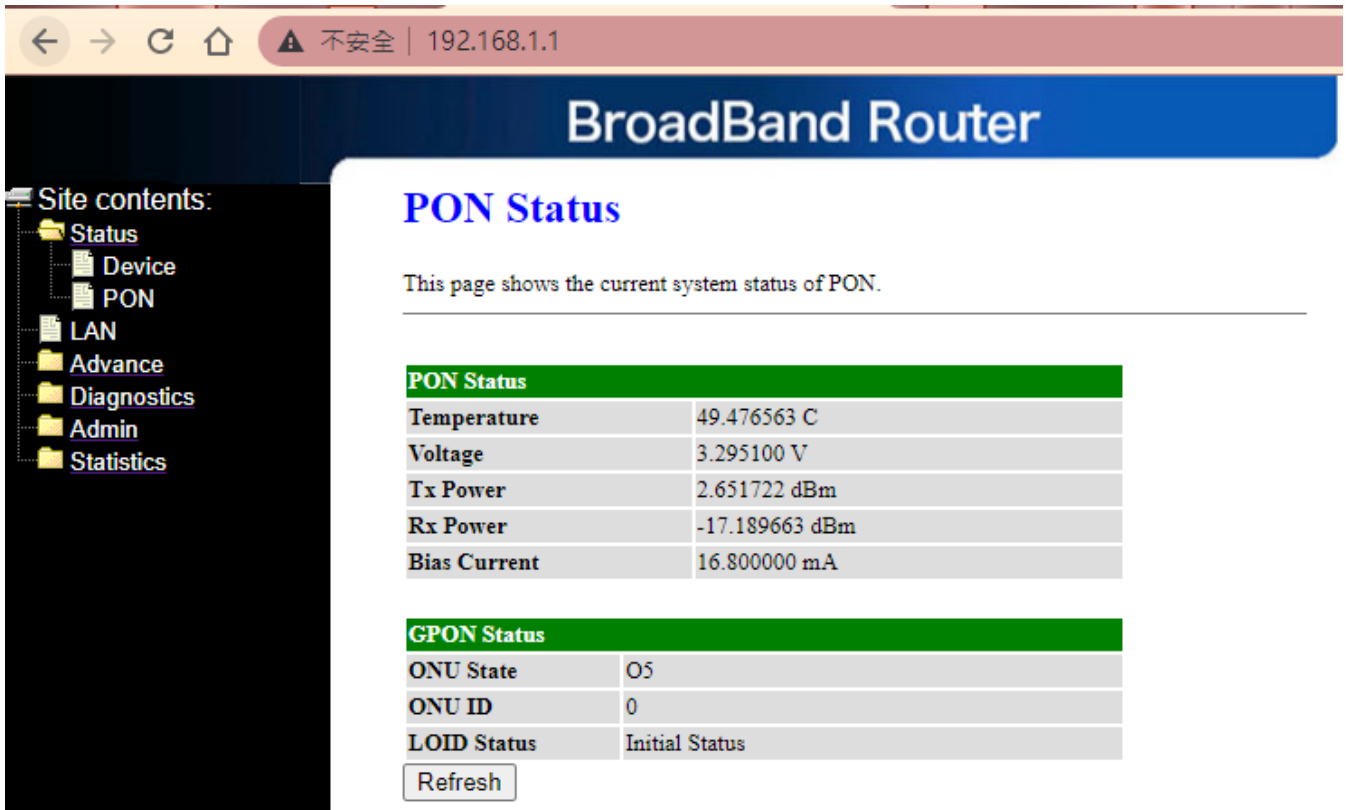
# |
```

7. 修改設定

填入資訊可參考 [Stock_ONU.md](https://github.com/Anime4000/RTL960x/blob/main/Docs/Stock_ONU.md) (https://github.com/Anime4000/RTL960x/blob/main/Docs/Stock_ONU.md)

```
1 flash set GPON_PLOAM_FORMAT 1
2 flash set GPON_PLOAM_PASSWD DEFAULT012(Hinet專線號碼即SLID)
3 flash set GPON_ONU_MODEL I-040GW(Hinet設備型號)
4 flash set GPON_SN GTHG12345678(Hinet設備Serial Number)
5 flash set PON_VENDOR_ID GTHG
6 flash set HW_HWVER 3FE99997HGW001(Hinet設備硬體版本)
7 flash set OMCI_SW_VER1 I040GWR200110(Hinet設備韌體版本)
8 flash set OMCI_SW_VER2 I040GWR200110(Hinet設備韌體版本)
9 flash set OMCC_VER 128
10 flash set OMCI_TM_OPT 0
11 flash set OMCI_FAKE_OK 1
12 flash set OMCI_OLT_MODE 21
13 reboot
```

重開機後在 PON Status 可能會看到 LOID Status 在 Initial Status , 這是正常的因為 Hinet 沒用到 LOID



8. 查看 vlan

```
1 | omcicli mib get 84
```

```
BusyBox v1.12.4 (2022-04-25 12:39:37 CST) built-in shell (ash)
Enter 'help' for a list of built-in commands.
```

```
# omcicli mib get 84
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
VlanTagFilterData
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
=====
EntityID: 0x02
FilterTbl[0]: PRI 0,CFI 0, VID 1446
FwdOp: 0x10
NumOfEntries: 1
=====
=====
EntityID: 0x03
FilterTbl[0]: PRI 0,CFI 0, VID 1445
FwdOp: 0x10
NumOfEntries: 1
=====
#
```

開啟Hinet故障報修 (<https://my.cht.com.tw/Trouble>)

故障報修

設備號碼清單

行動(2) 寬頻(2) 市話(1) 其他

- 可以兩個 Vlan 都分別先試看看

需先開啟瀏覽器開發人員工具(F12)

回到網頁選取所使用線路

我要報修:6Y*4*6*5

寬頻上網問題

寬頻上網問題



正在為您測試線路。請您稍候...

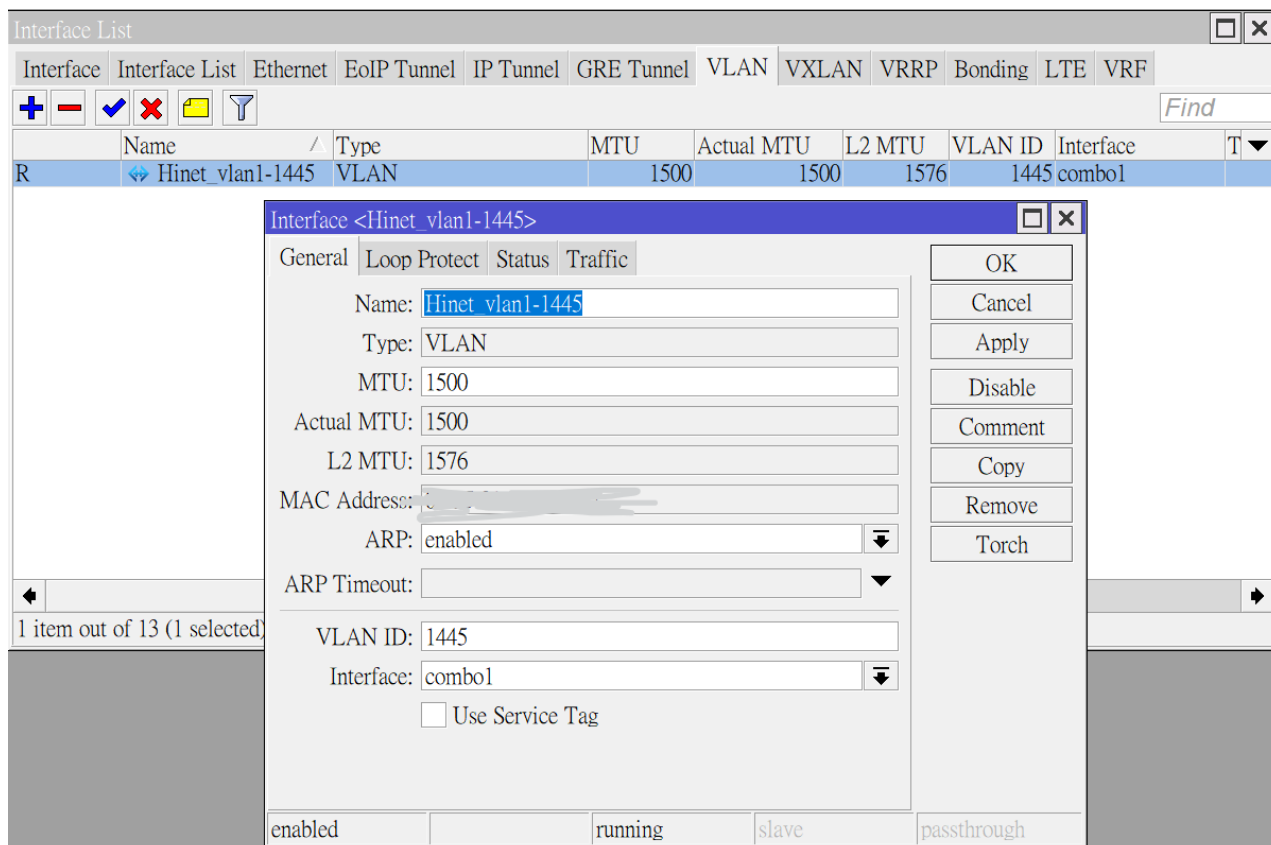
待測試完成後找尋 getLineInfo

裡面的 vlan 即是所需 vlan

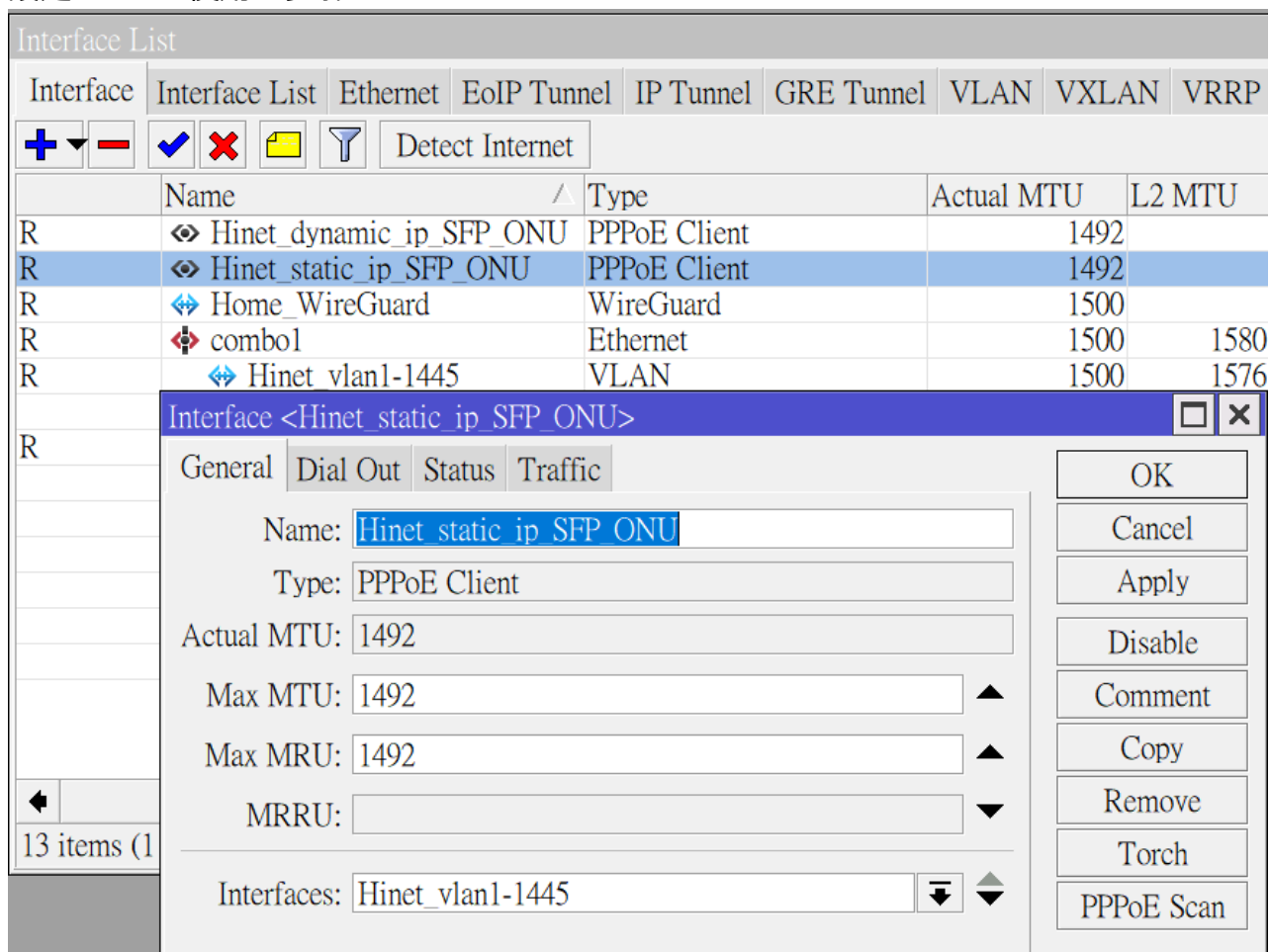
The screenshot shows the '寬頻上網問題' (Broadband Internet Problem) page. The test status is '測試正常' (Test Normal). The '自行檢測' (Self-Diagnosis) section shows '檢查數據機燈號' (Check Modem Light), 'Wi-Fi無法連線' (Wi-Fi cannot connect), and '訊號重置/Reset Port' (Signal Reset/Reset Port). The browser's developer tools are open, showing the 'getLineInfo' response in the console. The response is a JSON object with the following structure:

```
{  "result": 1,  "status": 200,  "AccountType": "住宅分組撥",  "data": {    "sta": "S",    "haltSta": "正常",    "exelMsg": "OK",    "exelMsg": "OK",    "isEPON": false,    "ofname": "TME2",    "spec": "FTTH",    "spino": " ",    "sta": "S",    "vendor": "ALCATEL-7360FX-8",    "vlan": "1445",    "msg": "認證失敗, 非本人系統。",    "result": 1,    "status": 200,    "取得權限": "FTTH專線",    "取得權限": "FTTH專線"  }  }
```

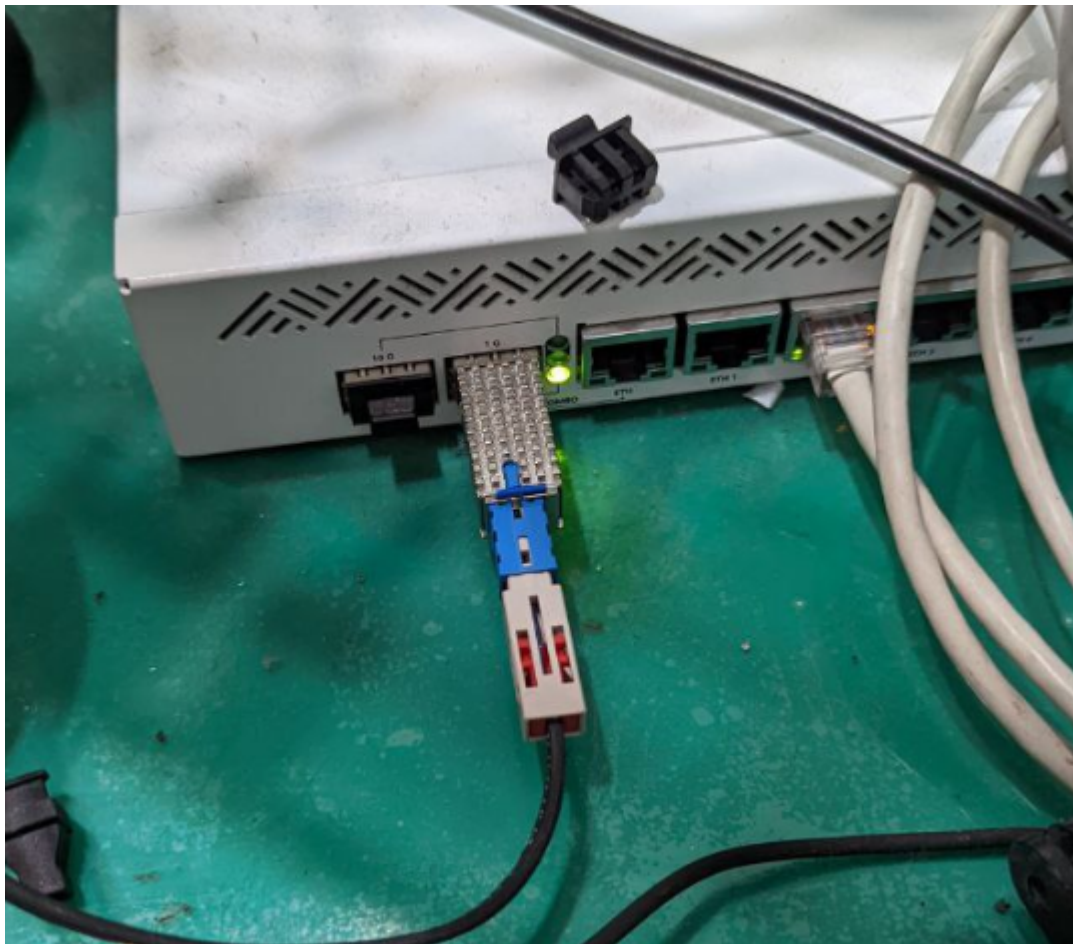
9. 設定 vlan



10. 設定 PPPOE 使用上步驟 vlan



11. Enjoy!!



GO

Connections

Multi

Chief Telecom

Hsinying

Change Server

HiNet

⬇️ DOWNLOAD Mbps

503.50

Ping ms ⚡️ 3

⬆️ UPLOAD Mbps

254.88

⬇️ 8 ⬆️ 26

HOW DOES YOUR DOWNLOAD SPEED COMPARE WITH YOUR EXPECTATIONS?

1

2

3

4

5

Much worse

As expected

Much better