

2025

E.S.L.S. modem



Richard Mangan

U.T.G. Pty Ltd

11/2/2025

InterceI 4G
E.S.L.S
Setup
Instructions

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1.0 Purpose of this document

This document is to show how to

- Connect PC to Modem
- How to change config file
- Uploading Config file
- Checking modem status
- Check Sign communications
-

2.0 Configuring Modem

Suggestion is to configure modems in workshop before attending site.

The easiest and fastest way to configure modem and ensuring all settings are correct is to edit and modify an existing configuration file and only change the Site ID and password, then download into Modem.

- Open the supplied "Cli" file with notepad
- Scroll down to username and change the Username to match Site settings"

```
ip route 0.0.0.0/0 modem
!
!
line vty
!
interface modem utg
access-point_name telstra.corp
username ESL:20346@ESLS.roads.vic.gov.au password ESLSVicRoads
band_lock auto
dail_fun dhcp
keepalive_switch off
network-type auto
ppp advance compress novj novjccomp nopcomp noaccomp noccp
ppp advance debug
ppp advance usepeerdns
ppp advance lcp interval 30 retry 5
!
!
service ddns
username test password test
local domain test
server domain dnsomatic
shutdown
!
```

- Once number changed save file
- Note file name must remain [cli.conf] to allow program to download

2.1 Downloading Config file

Now login to modem to download config file

- Open Browser on laptop
- Enter IP address 192.168.1.1 for new modem or 192.168.8.1 for new modem
- If unsure on IP address use cmd prompt and type ipconfig

```

Command Prompt
C:\Users\rick>ipconfig

Windows IP Configuration

Wireless LAN adapter Local Area Connection* 1:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Wireless LAN adapter Local Area Connection* 2:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Mobile Broadband adapter Cellular:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Ethernet adapter Ethernet:

    Connection-specific DNS Suffix  . : router
    IPv6 Address . . . . . : 2001:d0b0:3000:3001::caff
    Link-Local IPv6 Address . . . . : fe80::60c9:6ad0:726d:3b84%22
    IPv4 Address . . . . . : 192.168.8.92
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : fe80::288:9aff:fe01:ca4%22
                                192.168.8.1

Wireless LAN adapter Wi-Fi:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . : home

C:\Users\rick>

```

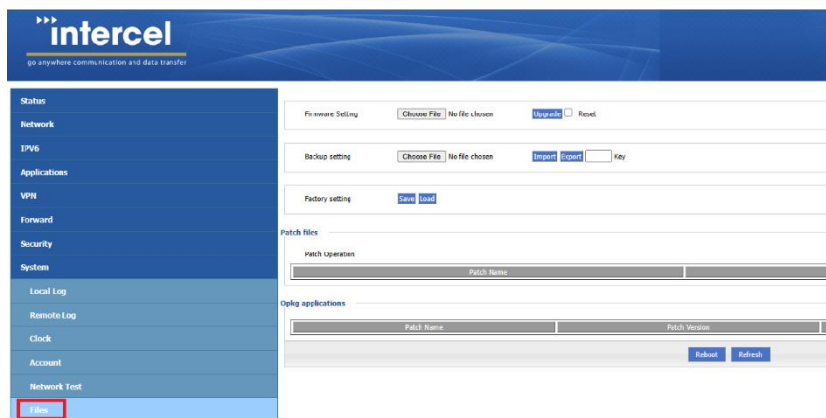
-
- A login page should appear



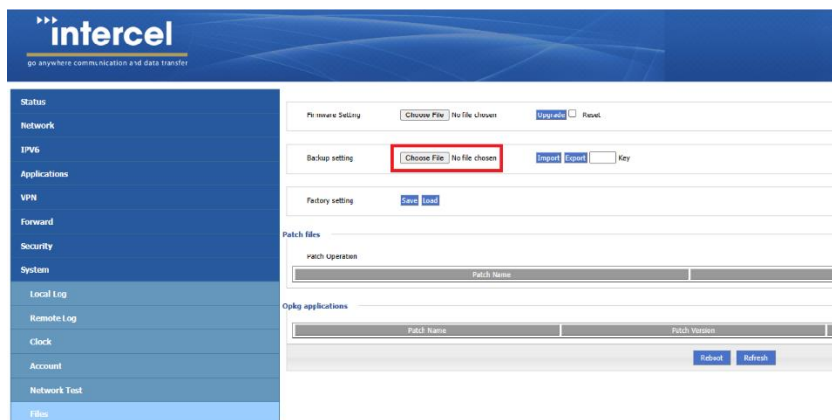
- Username admin
- Password admin new modem
-
- Click Login
- Scroll down to click on [System]



- Now select [Files]



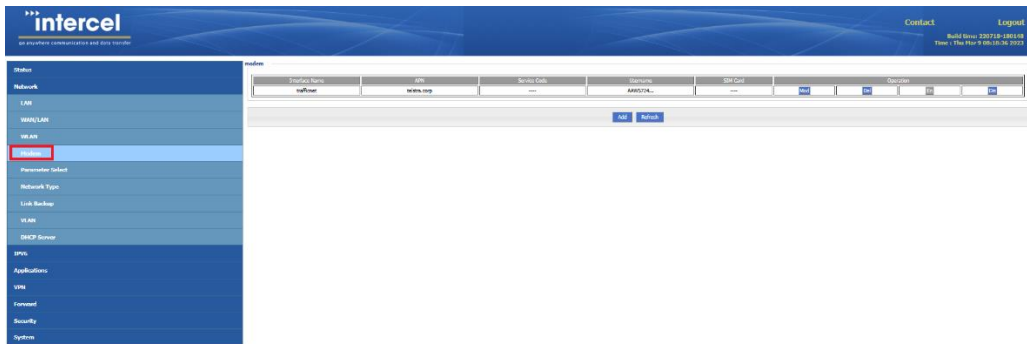
- Click on [Chose file]



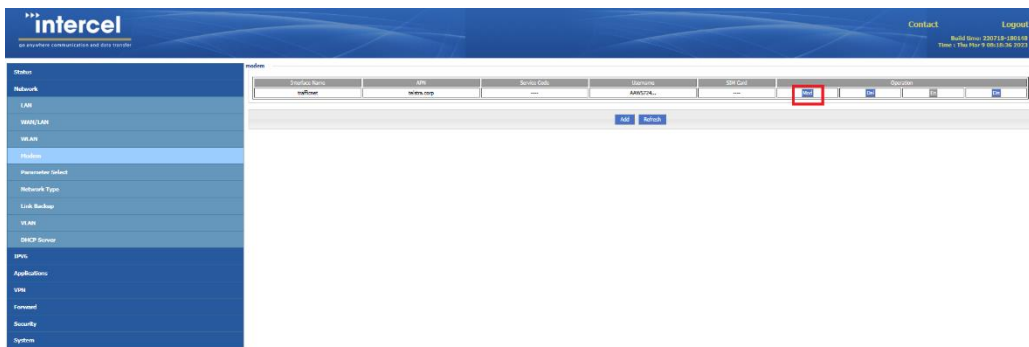
- Select CLI file
Chose file from hard drive location
- Now click Import button

Import Export Key

- Wait while file is downloaded and modem will reboot
- Close browser and reopen and re-login to confirm settings
- IP address will now be 192.168.1.1
- Once logged back in Select [Network] [Modem]



- Now click on [Mod]



- Information in red box show site settings, confirm site number correct
- Browser can now be closed and modem powered down and ready to be installed

3.0 Connecting SIM Controller cables

- Use supplied Custom serial cable
-

5.0 Port Forwarding Rules

- The port forwarding not required for ESLS
-

8.0 Checking communications

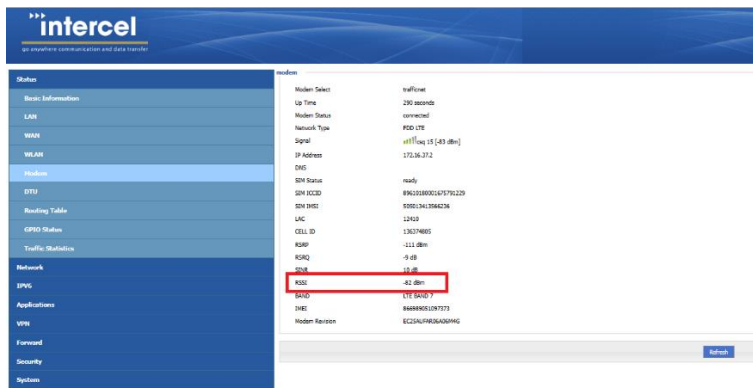
- Select Menu
 - STATUS
 - DTU
- If talking wireless to NMS the TCP/IP RX and TX should increment
- If talking to SIM controller the serial RX and TX should increment

9.0 Testing Connection

The screenshot shows the Intercel modem status page. The 'Status' menu is highlighted in red. The 'Modem Status' section displays the following information:

Modem Select:	euPhone
Up Time:	280 seconds
Modem Status:	connected
Network Type:	FDD LTE
Signal:	4/5 [43 dBm]
IP Address:	172.16.37.2
DNS:	none
SIM Status:	ready
SIM ICCID:	89602180014791208
SIM IMSI:	990218128426
LAC:	12450
CELL ID:	136274003
RSSI:	-111 dBm
RSRQ:	9.08
SINR:	15.08
RSR:	42 dBm
BAND:	LTE BAND 7
IMEI:	8646991281712
Modem Revision:	EC35A-FAR36A00140

- Items to Check
 - Modem Status – connected
 - IP Address - if no IP address, then Credentials incorrect
 - SIM Status - Sim Card ready
 - Network type - FDD LTE indicates connected to 4G network
 - RSSI - in below image (this indicates antenna signal strength)
 - Should be below -100 dBm



10. Fault diagnostics

10.1 All LED's Blank

Issue

None of the LED's on the router are flashing or illuminated.

Possible reason

- Power supply is not suitable, it should be 5 ~ 36 VDC
- Power supply off or faulty

Solution

- Check voltage
- Check the power adaptor and cable connection
-

10.2 SIM Slot

Issue

Cannot insert SIM card

Possible reason

- SIM slot or carriage damaged
- SIM card inserted in wrong direction

Solution

- Please contact UTG Pty Ltd or intercel for support
- Check SIM card direction, please make sure gold side facing up.

10.3 Ethernet Connection

Issue

LAN LED is not illuminating and cannot visit router WEB GUI

Possible reason

- Ethernet cable damaged or wrong
- PC network card faulty

Solution

- Remove and Re-connect ethernet cable
 - This can also force windows to detect
- Change ethernet cable
- Check network card settings on PC

10.4 No Signal

Issue

eSAM 3G/4G Router status shows no signal

Possible reason

- Antenna connected wrong
- Modem incorrectly configured
- Modem Damaged

Solution

- Connect suitable antenna

- Check SIM and modem settings
- Check ICMP and other router settings
- Reload config file

10.5 Cannot find SIM card

Issue

eSAM 3G/4G Router cannot find SIM card

Possible reason

- SIM Card damaged
- SIM card has poor contact

Solution

- Replace SIM card
- Re-install SIM card

10.6 Poor Signal

Issue

eSAM 3G/4G Router has no signal or poor signal

Possible reason

- Antenna connected to the wrong connector
- Signals are weak in the area

Solution

- Check antenna, cable and reconnect, make sure SMA nut firm
- Try different antenna configuration (high gain)
- Replace antenna if possible faulty
- Antenna location (relocate if possible)

11. Document Version table

Version	Notes	By	Date
1.0	First version of document	R.J.M.	11/2/25

