1	wvdialconf	`$ ls -l /usr/bin/wvdialconf` `-rwxr-xr-x 1 root root 42724`	type+enter result
		`$ sudo chmod go+w /usr/bin/wvdialconf`	type+enter
		`$ ls -l /usr/bin/wvdialconf` `-rwxrwxrwx 1 root root 42724`	type+enter result
2	wvdial.conf	`$ ls -l /etc/wvdial.conf` `-rw-r--r-- 1 root dialout 248`	type+enter result
		`$ sudo chmod a+rwx /etc/wvdial.conf`	type+enter
		`$ ls -l /etc/wvdial.conf` `-rwrwxrwx 1 root dialout 248`	type+enter result
3	pap-secrets	`$ ls -l /etc/ppp/pap-secrets` `-rw------- 1 root root 1628`	type+enter result
		`$ sudo chmod a+rwx /etc/ppp/pap-secrets`	type+enter
		`$ ls -l /etc/ppp/pap-secrets` `-rwxrwxrwx 1 root root 1628`	type+enter result
4	chap-secrets	`$ ls -l /etc/ppp/chap-secrets` `-rw------- 1 root root 80`	type+enter result
		`$ sudo chmod a+rwx /etc/ppp/chap-secrets`	type+enter
		`$ ls -l /etc/ppp/chap-secrets` `-rwxrwxrwx 1 root root 80`	type+enter result
5	pppd	`$ ls -l /usr/sbin/pppd` `-rwsr-xr-- 1 root dip 273272`	type+enter result
		`$ sudo chmod go+rwx /usr/sbin/pppd`	type+enter
		`$ ls -l /usr/sbin/pppd` `-rwsrwxrwx 1 root dip 273272`	type+enter result

Quit the **Terminal.**

Step 5.   Reboot the computer

Step 6.   Create data into wvdial.conf

---

wvdial.conf is a file which now exists, but it has no modem data written into it.
You can check contents of **wvdial.conf** by opening the file with **pluma** text editor.

[Terminal] $ pluma /etc/wvdial.conf   type+enter

To write data into **wvdial.conf**, you must run **wvdialconf** via the **Terminal**.
(Note that the data file is **wvdial.conf**, (with dot) and the application which writes to it,
is **wvdialconf** (no dot)).

[Terminal] $ wvdialconf   type+enter

Step 7. Examine and edit contents of wvdial.conf

The text editor **pluma** opens and reads the **wvdial.conf** data-file.

[Terminal] $ pluma /etc/wvdial.conf   type+enter

The **wvdial.conf** data file should read something like this, (below) but not always in the order shown.
Differences between COM1 and USB are highlighted in **darker font.**

COM1

Dialer Defaults]
Init 1 = ATZ
Init 2 = ATQ0 V1 E1 SO=0 &C1 &D2 +FCLASS=0
Modem Type = Analog Modem
Baud = **115200**
NewPPD = yes
Modem = /dev/**ttyS0**
ISDN = 0
; Phone = <Target Phone Number>
; Password = <Your Password>
; Username = <Your Login Name>

USB

Dialer Defaults]
Init 1 = ATZ
Init 2 = ATQ0 V1 E1 SO=0 &C1 &D2 +FCLASS=0
Modem Type = Analog Modem
Baud = **460800**
NewPPD = yes
Modem = /dev/**ttyUSB0**
ISDN = 0
; Phone = <Target Phone Number>
; Password = <Your Password>
; Username = <Your Login Name>

The edits you need to do in the data file, are as follows :

Remove :   semi-colons and space for last 3 lines shown
Add :   Phone Number, Password and Login Name where it is indicated.
Remove :   < and > characters
Add :   a new line and type on that line Stupid Mode = yes

Save file.
Do not change the file name.
Quit **pluma**.

Note 4

The instructions in Note 4 **will not** get you connected.
Instructions in Note 4 WILL write nameserver data to the current file located at **/etc/ppp/resolv.conf**.
This is important to **Step 8** which follows.

I have a detailed Note 4 because many ppl seem to end up with one of the results listed here in Note 4, and get *somewhat* connected, but not completely, (as described here).
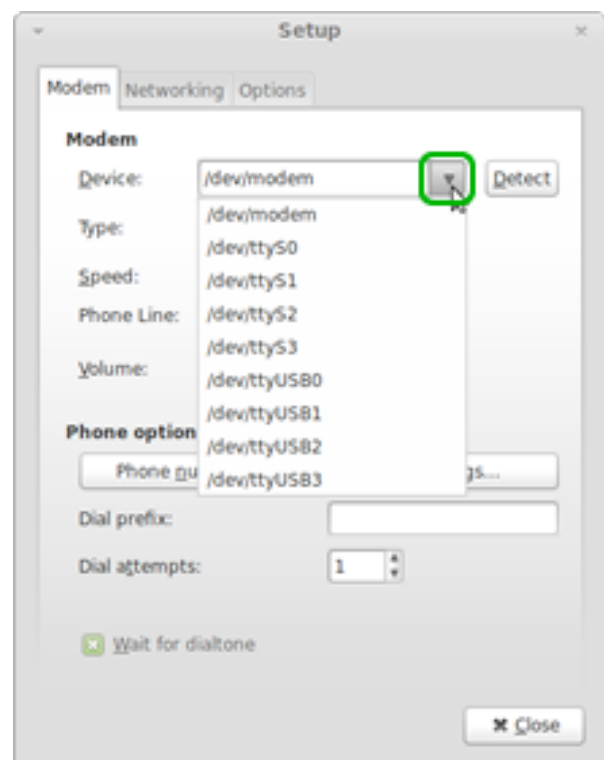
Note 4 : IMG1
Try to connect using **Gnome-PPP**.
Go to **Applications -> Internet -> Gnome-PPP.**
In the first screen, enter your correct dial-up phone number, username and password.
Press **Setup.**

Note 4 : IMG2
In the **Setup** window, select **Modem** tab.
Select a **Device** location, and press **Detect** to find the modem. You can try each one in turn.

For COM1, location is likely to be at **ttyS0.**
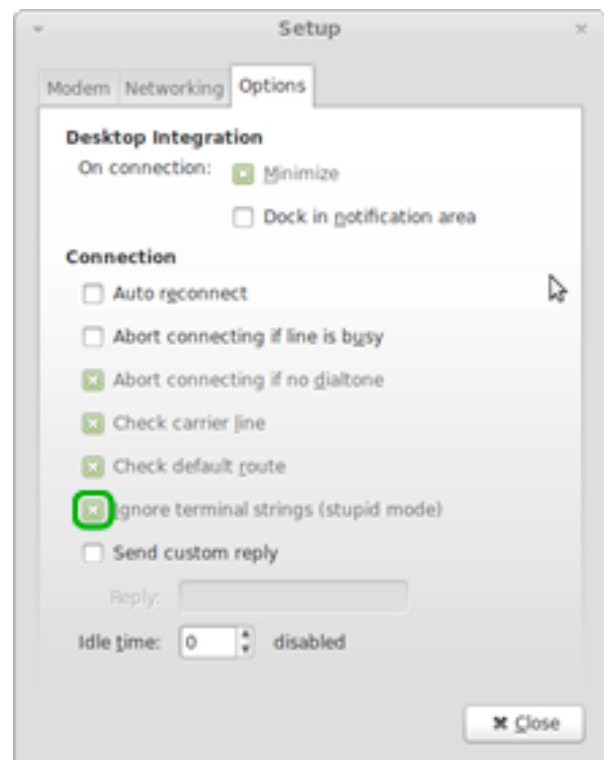For USB, location is likely to be **ttyUSB0**.

Note 4 : IMG3
From the main **Gnome-PPP** window, press **Connect.**
You should be able to connect for just a few seconds,
and then **Gnome-PPP** <u>**will terminate itself**</u>

Note 4 : IMG4
Press **Setup** again, and under the **Options** tab,
check **[X] Ignore terminal settings (stupid mode)**.

Note 4 : IMG5
Press **Connect**
Gnome-PPP should connect, the connection timer
should count, but there will be <u>**no data traffic**</u>.

Quit **Gnome-PPP.**
Carrying out this process has written nameserver data into **/etc/ppp/resolv.conf** .
This will be useful to **Step 8**.

Step 8.   Create a file called resolve.conf in the /etc directory, write nameserver data to that file.

(a) Generate and copy the nameserver data

Correct nameserver data needs to be found in the **resolv.conf** file, which needs to in the **/etc** directory, not anywhere else, and not in **/etc/ppp/**

The **resolv.conf** file is located here...   **/etc/ppp/resolv.conf**
Useful to know, but it's not in the **/etc** directory, so is not useful to maintain a dialup connection.

Open this same file with the text editor **pluma**...

[Terminal] $ pluma /etc/ppp/resolv.conf   type+enter

The **resolv.conf** data file is opened, however the **resolv.conf** file is empty, unless you completed **Note 4.**

> **IMPORTANT : Follow Note 4 above, to generate nameserver data into /etc/ppp/resolv.conf.**

Open **resolv.conf** with the text editor **pluma** after completing **Note 4**...

[Terminal] $ pluma /etc/ppp/resolv.conf   type+enter

The **resolv.conf** data file is opened and you should see something like this...

            nameserver 203.xx.xxx.xx
            nameserver 201.xx.xxx.xx

Copy these data via **Edit -> Copy**

Quit **pluma.**

(b) Fix permission to /etc and write resolv.conf into /etc folder.

The **/etc** directory will have 'permission denied' to copy files into it, or create files in it.
Examine the permissions, allow all permissions, then examine the permissions again.
If necessary you can change the permissions back after completing this step.
This is all done in the **Terminal**.

`$ ls -l /` `drwxr-xr-x 148 root root  ....etc`	type+enter result : you will get a list of all files and directories within the root directory. The listing for **/etc** directory will look like this.
`$ sudo chmod go+w /etc`	type+enter
`$ ls -l /` `drwxrwxrwx 148 root root  ....etc`	type+enter result : you will get a list of all files and directories within the root directory. The listing for **/etc** directory will look like this.

(c) Write resolv.conf and its contents into /etc folder.

You now have permission to write a file to the **/etc** folder.
A useful way to create a small file is to use the **cat** utility.

```
$ cd /etc
```

type+enter
  result : moves you into the **/etc** directory where subsequent work is to be done.

```
$ cat > resolv.conf
```

type+enter
  result : **cat** command creates **resolv.conf** file, and places following **Terminal** input into that file.

```
nameserver 203.xx.xxx.xx
nameserver 201.xx.xxx.xx
```

Select **Edit -> paste** to paste the nameserver data into the **Terminal** screen, and into the **resolv.conf** file that **cat** has just created.

Control + D

press
  result : terminates input and closes file.

```
$ pluma resolv.conf
```

type+enter
  result : **pluma** opens **resolv.conf** file in new window.

  File should read something like...

  nameserver 203.xx.xxx.xx
  nameserver 201.xx.xxx.xx

```
$ cd ~
```

type+enter
  result : Go back to home or root directory

```
$ sudo chmod go-w /etc
```

type+enter
  result : return the **/etc** directory permissions to its normal state

Step 9.   Connect using Gnome-PPP

You should be able to connect now, the connexn should be stable, AND you should get data traffic.