Note 3

Important files/apps to be aware of.
You may visit these files more than once via the Terminal.

The following files/apps and locations are relevant to successful dialup, so I have listed them here.
You will probably refer back to them.

There is some information floating around that 'there is a second wvdial.conf'.
I have listed it here (file 7 in list), but I have not touched anything to do with file 7 in order to get dialup working. I have also not touched wvdial (file 6 in list). I believe wvdial is used via the Gnome-PPP GUI.

1	wvdialconf	`/usr/bin/wvdialconf`
2	wvdial.conf	`/etc/wvdial.conf`
3	pap-secrets	`/etc/ppp/pap-secrets`
4	chap-secrets	`/etc/ppp/chap-secrets`
5	pppd	`/usr/sbin/pppd`
6	wvdial	`/usr/bin/wvdial`
7	wvdial.conf	`/.wvdial.conf`

Step 4. Check and then change permissions for items 1 through 5 of the list in Note 3 above

Each of the files numbered 1 to 5 in Note 3, need their permissions changed.
This change will give all users, all permissions to these files.
For each file I did a **3 step process**.
I always check the original permissions, so that I know what it was if I need to change it back.

a) Check permissions using `ls -l`
b) Change permissions using `sudo chmod go+rwx` (or) `a+rwx` (or) a variation of this as required
All users (a) or group (g) or others (o) get read (r), write (w), execute (x) privileges.
c) Check permissions again using `ls -l`

This is all done via the **Terminal**.

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----- 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

IMPORTANT : Did you do Step 5 and REBOOT THE COMPUTER ? If not, then DO THIS NOW !

If you don't do this, then **wvdial.conf** will be empty. Also, to create modem data to **wvdial.conf**, you *may* need to run **wvdialconf**, (as per LM13 instructions and **Step 6** below) and if and when you run **wvdialconf**, then this wont work (at this point) because all possible ports (ttySxx and ttyUSBxx etc.) will have 'permission denied', because you didn't REBOOT THE COMPUTER....

...so, REBOOT THE COMPUTER, as per **Step 5** above, and continue below....

IMPORTANT : Step 6 may / may not be required

My advice here is to examine the datafile **wvdial.conf** and depending on what it contains, will determine whether you need to do **Step 6** and **Step 7**, or jump to **Step 7**.
(Both **Step 6** and **Step 7** start with examining the contents of **wvdial.conf**.)

I have had mixed results at this point.
In some installations of the exact same LM15 Mate DVD edition and computer, I have had to perform **Step 6**, and at other times I have been able to miss **Step 6** and go straight to **Step 7**. I can't predict the circumstance at which either scenario occurs. It appears to be independent of dialup modem connexn method (COM1 vs USB).

If you are able go straight to **Step 7**, then this process is new from LM13 to LM15.
The new event from LM13 to LM15, is that during startup (**Step 5)** the modem is interrogated and data is now written to **wvdial.conf**.

Step 6 here, (if you have to do it) is inherited from the instructions for LM13, which was definitely required at this point in the process.

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

in the wvdial.conf file you will see the following...

```
[Dialer Defaults]
Phone =
Username =
Password =
New PPD =yes
```

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

If you get a long **Terminal** output indicating that all possible ports cannot be accessed; ttyxx and ttyUSBxx etc., then this indicates that you missed **Step 5**.

Step 7. Examine and edit contents of wvdial.conf

wvdial.conf is a file which will now contain modem data after **wvdialconf** interrogated your dialup modem.
Check the contents of **wvdial.conf** by opening the file with **pluma** text editor.

[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 (this is optional - there was an instruction way back, that these had to be removed)
Add :	a new line and type on that line Stupid Mode = yes

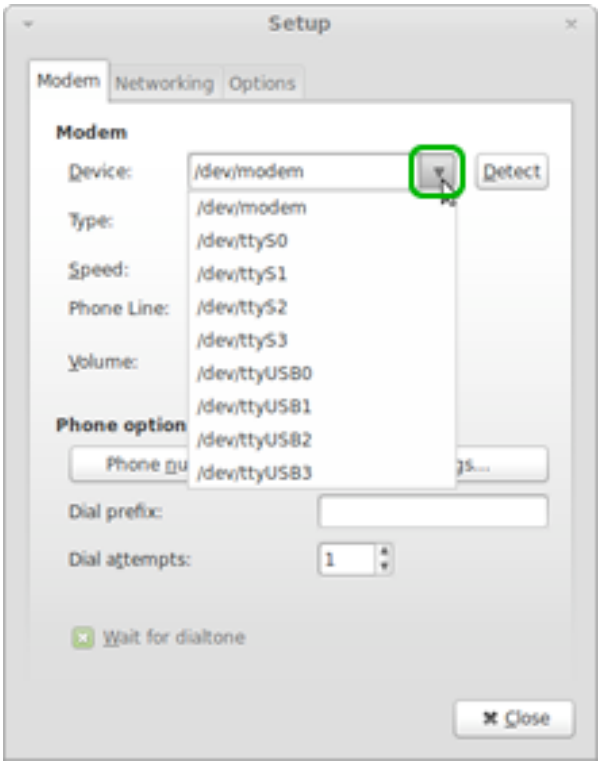
Save file.
Do not change the file name.
Quit **pluma**.

Step 8. Setup GnomePPP, dialup and access internet

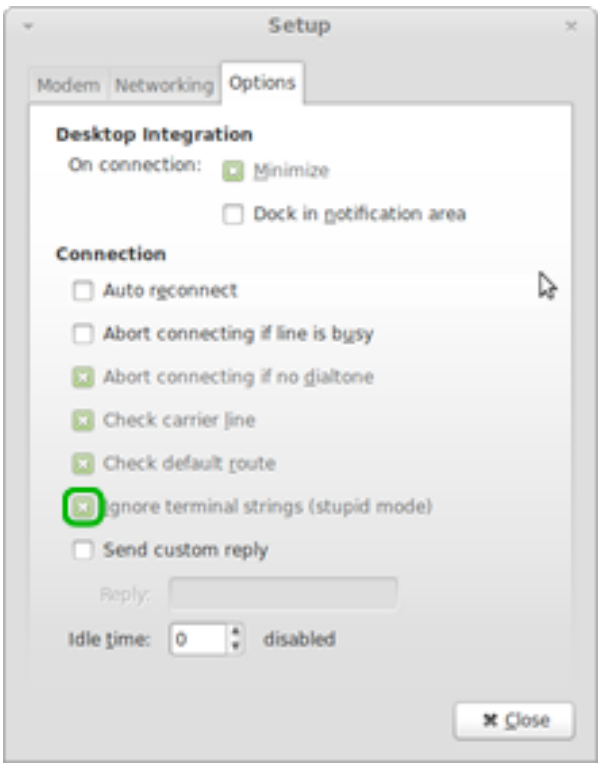
Step 8 : IMG1
Go to **Applications -> Internet -> Gnome-PPP.**
In the first screen, enter your correct dial-up phone number, username and password.
Press **Setup.**

Step 8 : IMG2
In the **Setup** window, select **Modem** tab.
Select a **Device** location, and press **Detect** to find the modem. If it's there, it will be found.

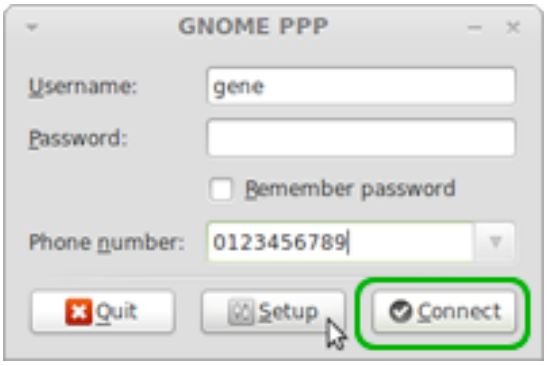
For COM1, location is likely to be at **ttyS0.**
For USB, location is likely to be **ttyUSB0**.



Step 8 : IMG3
Under the **Options** tab, check **[X] Ignore terminal settings (stupid mode)**. Close this screen and go back to the **GnomePPP** first screen.



Step 8 : IMG4
Back in the first **GnomePPP** screen, press **Connect. Gnome-PPP** should connect, the connection timer should count, and there should be data traffic.

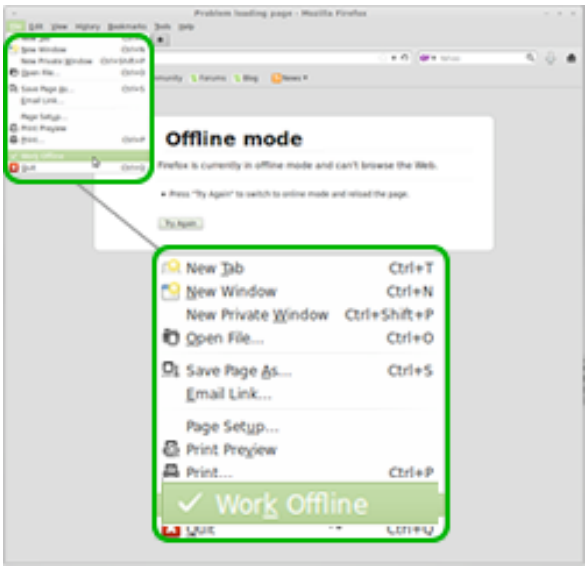


Step 9. Fix Firefox preferences

When you start-up **Firefox** at this point, you will notice that **Firefox** wont load a page.
You might think that there is no internet connexn. But there is.
The **Firefox** page tells you that **Firefox** is in 'Offline mode'.
In **Firefox**, you need to go to the **File** menu, and un-tick **Work Offline**, then refresh the page.
If I remember correctly, this issue was also in Ubuntu 10.xx.
I think it arises normally when you open Firefox while there is no internet connexn.
In some versions of browser it arises, despite there being an internet connexn. So it's a bug.

Step 9 : IMG1

In the **Firefox** application, click the **File** menu, and then un-tick **Work Offline**. Refresh the page.

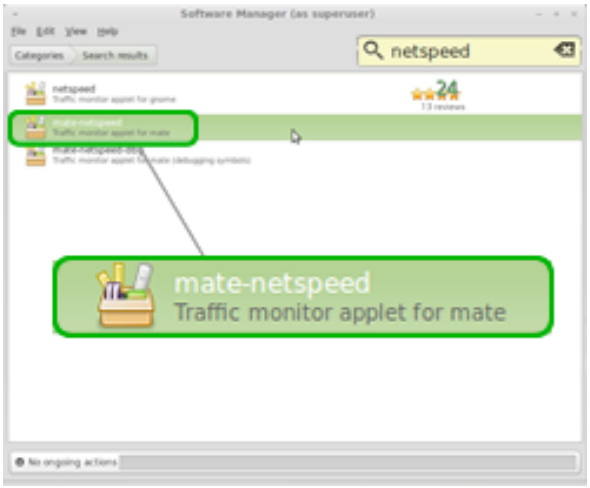


Step 10. Get and install Network Monitor

As discussed in **Note 1** above, **Network Monitor** which *was* available in LM13, is now missing in LM15. You should install this little app as soon as possible. It will be placed in your **Menu Panel**.

Step 10 : IMG1

Go to **System -> Administration -> Software Manager.** In **Software Manager** type 'netspeed' in the search bar. This search will return you a few results. Double-click on **mate-netspeed**.



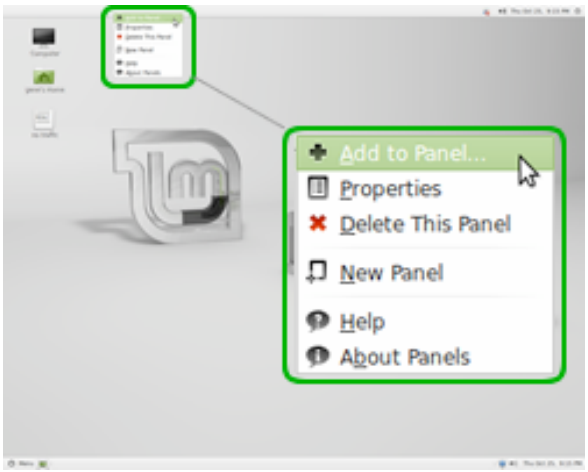
Step 10 : IMG2

The screen changes to provide more detail about **mate-netspeed**, and provides an install button. Click **Install** to begin the download-and-install process. When finished, close **Software Manager**.

Software Manager will install the software in the correct location for the system to make immediate use of the app. However, when installed, **mate-netspeed** will turn into **Network Monitor**. Of course, no-one is confused by this!

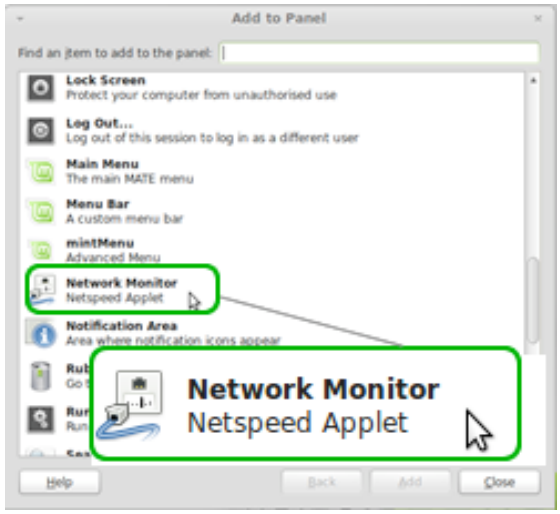
Step 10 : IMG3

Right-click anywhere on the top menu panel to get the panel-edit menu, and select **Add to Panel**



Step 10 : IMG4

In the **Add to Panel** window, select **Network Monitor**, and **+Add** this item to the top menu panel. Move the **Network Monitor** icon within the top-menu panel as required, as per **Note 1** above.



Finished.

- -

Other things you might like to know about LM15 and dialup.

Dialup software requires internet traffic to go through valid nameservers (DNS data) found in the `resolv.conf` datafile, located at `/etc/resolv.conf`.

In LM13 `/etc/resolv.conf` was missing, and this resulted in no data traffic once connected.
In LM13 the `resolv.conf` datafile had to be created in `/etc`, and valid nameserver data had to be manually entered into that file.

LM15 has fixed this, the file is created, and valid OpenDNS nameserver data has been entered there.
Apparently the developers have determined the nameserver data located there should be stuck, so there is a message that different nameserver data entered manually (if you fix the permission to do this) will be overwritten. It is likely overwritten as a result of the numerous files located in `/etc/resolvconf`. (`resolvconf` in this latter case, is a folder or directory.)

Open `/etc/resolv.conf` using `pluma` text editor to examine the contents.

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

```
# Dynamic resolv.conf(5) file for glibc resolver(3) generated by resolvconf(8)
#     DO NOT EDIT THIS FILE BY HAND -- YOUR CHANGES WILL BE OVERWRITTEN

# OpenDNS Fallback (configured by Linux Mint in /etc/resolvconf/resolv.conf.d/tail).

nameserver 208.67.222.222
nameserver 208.67.220.220
```

When you **connect** to the internet via dialup however, the dialup process must first find and connect to your ISP servers. These can be found recorded at `/etc/ppp/resolv.conf`.

Open `/etc/ppp/resolv.conf` using `pluma` text editor to examine the contents.

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

```
nameserver 202.76.xxx.xxx
nameserver 203.24.xxx.xxx
```

These (or your local variation of these) are your local ISP nameservers, found and written here, when you are connected via dialup.