

# Belgian HOWTO

**Dag Wieërs**

dag@wieers.com

## **Revision History**

Revision 1.1.0

2001-05-01

Revised by: dag

Converted to DocBook v4.1

This document describes how to tweak Linux for Belgian users and lists Linux user groups, businesses and other resources in Belgium.

---

# Table of Contents

<b><u>1. Introduction</u></b>	<b><u>1</u></b>
<u>1.1. Why this document?</u>	<u>1</u>
<u>1.2. New versions of this document</u>	<u>1</u>
<u>1.3. Translated versions</u>	<u>1</u>
<u>1.4. Contributions</u>	<u>1</u>
<u>1.5. Feedback</u>	<u>2</u>
<u>1.6. Legal stuff</u>	<u>2</u>
<u>1.7. Todo</u>	<u>2</u>
<b><u>2. Configuration</u></b>	<b><u>3</u></b>
<u>2.1. Keyboard setup</u>	<u>3</u>
<u>2.1.1. Console</u>	<u>3</u>
<u>2.1.2. XFree86</u>	<u>3</u>
<u>2.2. Display and applications</u>	<u>4</u>
<u>2.2.1. Using the ISO-8859-1 font in console</u>	<u>4</u>
<u>2.2.2. Support for the Euro symbol</u>	<u>5</u>
<u>2.3. Time zone</u>	<u>5</u>
<u>2.4. Locale support</u>	<u>6</u>
<u>2.4.1. Dutch</u>	<u>6</u>
<u>2.4.2. French</u>	<u>6</u>
<u>2.4.3. German</u>	<u>7</u>
<u>2.4.4. Walloon</u>	<u>7</u>
<u>2.5. Native language support and codepages</u>	<u>7</u>
<b><u>3. Setting up Internet (Belgian ISP information)</u></b>	<b><u>8</u></b>
<u>3.1. Dialing in with your modem (PPP)</u>	<u>8</u>
<u>3.1.1. Configuring the modem</u>	<u>8</u>
<u>3.1.2. Installing pppd</u>	<u>8</u>
<u>3.1.3. pap-secrets / chap-secrets</u>	<u>10</u>
<u>3.1.4. Network</u>	<u>10</u>
<u>3.1.5. File permissions</u>	<u>10</u>
<u>3.1.6. Dial + Hangup</u>	<u>10</u>
<u>3.1.7. ISP-dependant information</u>	<u>11</u>
<u>3.2. Dialing in with your ISDN-modem</u>	<u>15</u>
<u>3.2.1. Updating the kernel</u>	<u>15</u>
<u>3.2.2. ISDN4Linux toolkit</u>	<u>16</u>
<u>3.2.3. Configuring the interface</u>	<u>16</u>
<u>3.2.4. pap-secrets / chap-secrets</u>	<u>17</u>
<u>3.2.5. Network</u>	<u>18</u>
<u>3.2.6. File permissions</u>	<u>18</u>
<u>3.2.7. Dial + Hangup</u>	<u>18</u>
<u>3.3. Cablemodem (DHCP)</u>	<u>18</u>
<u>3.3.1. UPC Belgium (Chello, TVD)</u>	<u>19</u>
<u>3.3.2. Pandora (Telenet)</u>	<u>19</u>
<u>3.4. ADSL</u>	<u>20</u>
<u>3.4.1. Easynet</u>	<u>20</u>
<u>3.4.2. KPN Belgium (Eunet)</u>	<u>20</u>
<u>3.4.3. Turboline (Belgacom)</u>	<u>20</u>

# Table of Contents

<b>4. Belgian Linux user groups.....</b>	<b>21</b>
4.1. ALLIN Linux User Group.....	21
4.2. Antwerp Linux User Group (ALUG).....	21
4.3. Brussels Linux User Group (BeLUGa).....	22
4.4. Computer Forum KaHo (CFK).....	22
4.5. HCC Limburgse Linux Gebruikers Groep (HLLGG).....	22
4.6. HCC Linux Gebruikers Groep Leuven.....	23
4.7. Independent Group of Unix–Alikes and Network Activists (IGUANA).....	23
4.8. Infogroep (IGWE).....	24
4.9. Leuvense Linux Users (L2U).....	24
4.10. Limburgse Linux User Group (LILUG).....	25
4.11. Linux User Group De Bruxelles (BxLUG).....	25
4.12. Linux User Group De Charleroi.....	25
4.13. Linux User Group De Liège.....	26
4.14. Linux User Group De Namur.....	26
4.15. Linux User Group Heist op den Berg.....	26
4.16. Linux User Group Mons.....	26
4.17. Linux User Movement Underground Mad Belgian Aliens (LUMUMBA).....	27
4.18. LinuxBe.Org A.S.B.I.....	27
4.19. Louvain–Li–nux (LLN).....	28
4.20. Open Technology Assembly Linux Special Interest Group.....	28
4.21. PC Aktief Computerclub.....	29
4.22. Python Blanc Blue Belge (P3B).....	29
4.23. Student Information Networking (SIN).....	29
4.24. TINA.....	30
4.25. Unix Lovers Yield Student Services & Internet Support (ULYSSIS).....	30
4.26. West–Vlaamse Linux User Group (Lug–WV).....	30
4.27. Zeus WPI – Werkgroep Informatica RUG.....	31
<b>5. Belgian Linux businesses.....</b>	<b>32</b>
5.1. aDOC Services.....	32
5.2. Arafox.....	32
5.3. Aragne.....	33
5.4. Better Access N.V.....	33
5.5. BIOS Consulting sa/nv.....	34
5.6. CSS N.V.....	34
5.7. D. Connect.....	35
5.8. Double Barrel Consultancy and Productions.....	35
5.9. Grmbl productions.....	36
5.10. IBM Belgium SA/NV.....	36
5.11. IP Net generation.....	37
5.12. Kangaroot Linux Consultancy.....	37
5.13. Mind Linux Solutions.....	38
5.14. Phidani Software SPRL.....	39
5.15. Spier BVBA.....	39
5.16. Stone–IT Belgium.....	40
5.17. VA Linux Belgium.....	41
5.18. VirgoPlus sprl.....	41

# Table of Contents

<b><u>6. Belgian Linux resources</u></b> .....	<b>43</b>
<u>6.1. Websites</u> .....	43
<u>6.1.1. Linux in Belgium</u> .....	43
<u>6.1.2. Dutch Linux-sites</u> .....	43
<u>6.1.3. French Linux-sites</u> .....	43
<u>6.1.4. Mirrors in Belgium</u> .....	43
<u>6.2. HOWTO</u> .....	43
<u>6.3. HOWTO translations</u> .....	44
<u>6.3.1. Dutch</u> .....	44
<u>6.3.2. French</u> .....	44
<u>6.3.3. German</u> .....	44
<u>6.4. FTP</u> .....	44
<u>6.4.1. Kernel-source mirrors</u> .....	44
<u>6.4.2. Distribution mirrors</u> .....	44
<u>6.4.3. Mirrors in Belgium</u> .....	45
<u>6.5. Usenet/Newsgroups</u> .....	45
<u>6.6. IRC</u> .....	45

# 1. Introduction

## 1.1. Why this document?

Since there was no information anywhere on the net for Belgian Linux users, we started to collect stuff that we thought could be important. This HOWTO aims to be the definitive list of all Belgian-related Linux information. If you think not, you have no excuse to complain and certainly not to not contribute. ;)

---

## 1.2. New versions of this document

If you need to know more about the Linux Documentation Project or about Linux HOWTO's, feel free to contact the supervisor Tim Bynum <[linux-howto@sunsite.unc.edu](mailto:linux-howto@sunsite.unc.edu)>.

Tim Bynum will post the listing to several national and international newsgroups on a monthly basis. In addition, the Belgian HOWTO can be found on the World Wide Web at <http://dag.wieers.com/howto/>. New versions of the Belgian HOWTO are always placed at this site first, so please be sure to check if the copy you are reading is still up to date!

---

## 1.3. Translated versions

This document is currently translated in 3 languages (English, Dutch and French), we're trying to keep all three of them in sync, but the English version is the source-document!

The English and Dutch version are maintained by Dag Wieërs <[dag@wieers.com](mailto:dag@wieers.com)> and is found at: <http://dag.wieers.com/howto/>.

The French version is maintained by Dany Vanderroost <[danyv@euronet.be](mailto:danyv@euronet.be)> and is found at: <http://club.euronet.be/dany.vanderroost/howto.html>.

---

## 1.4. Contributions

A few people mailed us their suggestions and improvements, thanks go to:

- Wim Vandeputte <[wvdputte@reptile.ruq.ac.be](mailto:wvdputte@reptile.ruq.ac.be)>
- Pablo Saratxaga <[srtxg@ping.be](mailto:srtxg@ping.be)>
- Christophe Lambin <[clambin@skynet.be](mailto:clambin@skynet.be)>
- Geert Uytterhoeven <[geert@linux-m68k.org](mailto:geert@linux-m68k.org)>

Many thanks go to Ivo Clarysse <[soggie@iguana.be](mailto:soggie@iguana.be)> who started something similar earlier (<http://linbel.iguana.be/>) and his project helped us a lot to get this document online.

---

## 1.5. Feedback

If some information seems to be wrong, deceptive or missing, we'd appreciate if you mailed us the improvements. Since we're just human this document isn't bug-free, but your contribution can and will make a difference.

To add yourself to the Linux user groups or businesses, collect all necessary information and mail it to us.

---

## 1.6. Legal stuff

Trademarks are owned by their owners.

Although the information given in this document is believed to be correct, the author will accept no liability for the content of this document. Use the tips and examples given herein at your own risk.

Copyright © 1998, 1999, 2000 by Dag Wieërs. This document may be distributed only subject to the terms and conditions set forth in [the LDP license](#).

---

## 1.7. Todo

There are some things I'm planning to add to this document, if you're interested be sure you're reading the most current version of this document. (This todo-list is only a reminder to myself, it is not in the translated documents!)

- Integrate [LinBel](#) some more (should have done this a long time ago)
  - Add details about how to get Ispell—software for your own language
  - Add more information about ADSL/DANA
-

## 2. Configuration

### 2.1. Keyboard setup

Linux provides 2 ways to set up your keyboard. At the console you can use **loadkeys** and under XFree86 you can use **xmodmap**.

---

#### 2.1.1. Console

To use the keytable for a Belgian keyboard you can use **loadkeys be2-latin1** or **loadkeys be-latin1**. The only difference between the two is that be2-latin1 adds support for twosuperior and threesuperior (keycode 41) and grave (keycode 43).

Usually **loadkeys** is started at boottime from the scripts located somewhere in `/etc/rc.d`. Different distributions handle it differently. But most distributions have a simple program (like **kbdconfig** in Red Hat, **install-keymap** in Debian or **yast** in SuSE) to change the scripts.

---

#### 2.1.2. XFree86

To set your keyboard properly under XFree86 you've got more choices. By running **Xconfigurator** (or a similar program) a config-file for XFree86 is created (with some standard content). This file is called `XF86Config` and is usually located in `/etc` or `/etc/X11`

Make sure (and change otherwise) that something similar to this is given under the *Keyboard Section*.

```
Section "Keyboard"
    Protocol      "Standard"
    XkbRules      "xfree86"
    XkbModel      "pc101"
    XkbLayout     "be"
EndSection
```

If you own a 'microsoft' keyboard (or the less-known penguin keyboards ;p) you can enable those extra 3 keys by changing the `"pc101"` into `"pc104"`. (I use the extra keys as meta-keys in my windowmanager so some shortcuts doesn't conflict with the internal ones of my wm).

To get the AltGr key to work under XFree86 simply add in the *Keyboard Section*:

```
RightAlt      ModeShift
```

To get some key-combinations working under X11, you might want to change in file `/usr/X11R6/lib/X11/xkb/symbols/be`:

```
key <AD11> { [ dead_circumflex,    diaeresis    ],
             [ bracketleft      ] ,           };
key <AC11> { [                ugrave,    percent     ],
             [ quoteright       ] ,           };
```

```
key <BKSL> { [ mu, sterling ],
key <AB10> { [ quoteleft ] };
[ asciitilde ] };
```

by

```
key <AD11> { [ dead_circumflex, dead_diaeresis ],
key <AC11> { [ bracketleft ] };
[ ugrave, percent ], };
key <BKSL> { [ mu, sterling ],
[ dead_grave ] };
key <AB10> { [ equal, plus ],
[ dead_tilde ] };
```

Some people prefer to use a 'Compose'-key to enter their special characters, like:

```
Compose-' e => é
Compose-/ o => ø
Compose-c , => ç
Compose-c o => ©
Compose-s s => ß
```

The solution is to enter **xmodmap -e "keycode xx = Multi\_key"** or **xmodmap -e "keysym yy = Multi\_key"** where 'xx' is the keycode or 'yy' the keysym of the key you choose to be the 'Compose'-key. (use **xev** to get these values)

Alternatively you can add **keycode xx = Multi\_key** to your `~/.xmodmaprc`. This way it happens automagically.

## 2.2. Display and applications

Some applications have to be compiled as 8-bit clean to work well with the European character set. Others like to be told in advance.

### 2.2.1. Using the ISO-8859-1 font in console

You can load the ISO-8859-1 font by typing the following in console:

```
setfont latlu-16.psf
mapscrn trivial
echo -ne '\033(K'
```

To be able to use `ë`, `è`, `é` or `ç` in console, you might want to add these to your `~/.inputrc`:

```
set meta-flag on
set convert-meta off
set output-meta on
```

(This must be done for every user, if you want this to be default for all users you can either add this file to



`/etc/skel/` or you could add these lines to `/etc/inputrc` and add the following to `/etc/bashrc`,  
**export INPUTRC=/etc/inputrc)**

**Note!:** This is only useful to programs that use readline (like bash)

Also set the following environment variables:

```
LC_CTYPE=iso-8859-1
SYSFONT=lat1u-16.psf
SYSTEM=linux
```

---

### 2.2.2. Support for the Euro symbol

Since Europe had to invent a new character, the Euro, there's a new standard. It's called ISO-8859-15 (aka Latin-9 or Latin-0). To add support you need both a new font and new keymaps. This is part of every major distribution nowadays, if you have an older distributions you probably need a newer *console-tools* package.

The changes in the keymap-file consist of the following lines:

```
keycode 18 = +e      +E      currency
keycode 46 = +c      +C      cent
```

And the following environment-variable should be set:

```
SYSFONT=lat0-16.psf
```

to make sure you're using the right font.

---

## 2.3. Time zone

Since Belgium is located in the Central European Time zone (aka MET) which (in the winter) is equivalent to the Greenwich Mean Time plus 1 (GMT+1), you can simply link  
`/usr/lib/zoneinfo/localtime/MET` to `/etc/localtime` symbolically like:

```
ln -sf /usr/lib/zoneinfo/MET /etc/localtime
```

or

```
ln -sf /usr/lib/zoneinfo/Europe/Brussels /etc/localtime
```

This automagically sets Daylight Savings (which is GMT+2 in the summer).

**Note!:** Different distributions have different paths, zoneinfo can be located in  
`/usr/share` or such...

**Another note!:** Red Hat uses a tool called **timeconfig**, SuSE uses **yast**

To change the CMOS clock and then synchronize the system time with the CMOS clock, do something like this:

```
hwclock --set --date="Feb 25 03:38"  
clock -u -s
```

If your clock is set to local time (which is discouraged but if you also run broken OS's, you must), you can do:

```
hwclock --set --date="Feb 25 04:38"  
clock -s
```

[Noticed the 1 hour difference ? ;p]

If your computer has Internet-access you can use NTP (Network Time Protocol) to keep your system clock in sync. One way of doing this is by starting ntpdate from cron by adding

```
05 0 * * * root /usr/sbin/ntpdate -s ntp.belnet.be > /dev/null 2>&1
```

to your */etc/crontab*. Check the ISP-information below to see if your ISP has a NTP-server available.

---

## 2.4. Locale support

Not much programs support locale yet, if you want to know more about locale or how to write your own programs to support it, check: [put the damn url here ;p]

Be aware that locale makes it harder to resolve problems as less people can help you !! You might understand a problem when it's in technical English, but what if it's translated in some obscure Dutch ?

---

### 2.4.1. Dutch

To enable support for the Dutch locale in Belgium on a system with locale support you just have to set the following environment variables:

```
LANG=nl  
LANGUAGE=nl_BE
```

Try nl\_BE.ISO\_8859-1 if nl\_BE does not work.

---

### 2.4.2. French

If you want French locale support in Belgium, set the following environment variabls:

```
LANG=fr  
LANGUAGE=fr_BE
```

Try fr\_BE.ISO\_8859-1 if fr\_BE does not work.

---

### 2.4.3. German

If you want instead German locale support in Belgium, set the following environment variables:

```
LANG=de
LANGUAGE=de_BE
```

Try de\_BE.ISO\_8859-1 if de\_BE does not work.

---

### 2.4.4. Walloon

For Walloon locale support you can find files and information at: <http://www.linux18n.org/locales/walon/>.  
To use it set:

```
LANG=wa
LANGUAGE=wa_BE:fr_BE
```

Try wa\_BE.ISO\_8859-1 if wa\_BE does not work.

---

## 2.5. Native language support and codepages

These options add support for the Belgian charset and codepages. If you'd like to have these, compile a kernel with these options put on. They only apply to some filesystems (FAT-based, ISO9660, ...).

```
< > Codepage 850 (Europe)
< > NLS ISO 8859-1 (Latin 1; Western European Languages)
< > NLS ISO 8859-15 (Latin 9; Western European Languages with Euro)
```

Located in *Filesystems > Native Language Support*

If your kernel is a modular kernel that came with your distribution (=you never compiled a kernel before), then you might want to type:

```
insmod nls_cp850
insmod nls_iso8859_1
insmod nls_iso8859_15
```

---

## 3. Setting up Internet (Belgian ISP information)

### 3.1. Dialing in with your modem (PPP)

To configure PPP correctly, you should check the [PPP-HOWTO](#). I try to explain it briefly, but if you have any questions or problems, read the HOWTO very carefully.

---

#### 3.1.1. Configuring the modem

To configure your modem, you can alter the initstring of your modem. To learn more about your modem, check [Ask Mr. Modem](#).

Warning
If you have a winmodem you will probably not get it to work. More information about winmodems is at: <a href="http://linmodems.org/">http://linmodems.org/</a> . Work is underway, but winmodems are not as good as <i>real</i> modems.

#### 3.1.2. Installing pppd

Now, you need to have the ppp-package installed (check this by typing `pppd --version`), make sure you have a recent one. Then you have to make sure you've got these files:

`/usr/local/bin/ppp`

```
#!/bin/sh
case $1 in
  on|start)
    TELEPHONE='555-1212'          # The telephone number for the connection
    ACCOUNT='your_login'         # The account name for logon (as in 'George Burns')
    PASSWORD='your_pass'         # The password for this account (and 'Gracie Allen')
    INITSTRING='AT&F&C1&D2Z'# Modem initstring
    IPLOCAL=0.0.0.0              # Local IP address if known. Dynamic = 0.0.0.0
    IPREMOTE=0.0.0.0             # Remote IP address if desired. Normally 0.0.0.0
    DEVICE=/dev/ttyS1            # Serial Device com1=ttyS0, com2=ttyS1,...
    SPEED=57600                  # 19200, 38400 or 57600 (don't try something different)
    export TELEPHONE ACCOUNT PASSWORD INITSTRING
    exec /usr/sbin/pppd $DEVICE $SPEED $IPLOCAL:$IPREMOTE \
      user $ACCOUNT connect /etc/ppp/ppp-on-dialer
    ;;
  off|stop)
    if [ -r /var/run/ppp0.pid ]; then
      kill -INT `cat /var/run/ppp0.pid`
      if [ ! "$?" = "0" ]; then
        rm -f /var/run/ppp0.pid
        echo "ERROR: Removed stale pid file"
        exit 1
      fi
    fi
    exit 0
fi
echo "ERROR: PPP link is not active on ppp0"
```

## Belgian HOWTO

```
        exit 1
        ;;
        info|status)
        /usr/sbin/pppstats
        ;;
        *)
        echo "Usage: ppp on|off|info|start|stop|status";
        ;;
    esac
```

/etc/ppp/ppp-on-dialer

```
#!/bin/sh
exec /usr/sbin/chat -v \
    REPORT CONNECTION \
    REPORT CARRIER \
    TIMEOUT 10 \
    ABORT '\nBUSY\r' \
    ABORT '\nNO ANSWER\r' \
    ABORT '\nNO CARRIER\r' \
    ABORT '\nNO DIALTONE\r' \
    ABORT '\nRINGING\r\n\r\nRINGING\r' \
    ABORT 'Invalid Login' \
    ABORT 'Login incorrect' \
    ' ' '\r$INITSTRING\r' \
    'OK-+++\c-OK' 'ATH0' \
    TIMEOUT 45 \
    OK "ATDT$TELEPHONE" \
    CONNECT '\d\c' \
    ogin:--ogin: "$ACCOUNT" \
    ord: "$PASSWORD"
```

You can remove the `-v` once everything looks normal.

The `pppd` command uses `/etc/ppp/options` to list its options, change these options to whatever fits. These defaults normally work in most cases.

```
asynmap 20a0000
crtsts
debug
default-mru
defaultroute
detach
escape 11,13,ff
hide-password
ipcp-accept-local
ipcp-accept-remote
lcp-echo-failure 4
lcp-echo-interval 400
lock
modem
mtu 1500
netmask 255.255.255.0
noipdefault
passive

#idle 300
#kdebug 0
#-vj
```

Once dialing in works like a charm, you can leave debug out.

## Warning

It is important to emphasize that every special character, thus every character that is not [a-ZA-Z0-9] and '\_', should be escaped by preceding it with a '\'-character. Thus "e!b\$I+" would become "e\!b\\$I\+". Try it if you are having troubles !

### 3.1.3. pap-secrets / chap-secrets

If your ISP requires CHAP or PAP, you need one of these files with their proper username and password:

/etc/ppp/pap-secrets or /etc/ppp/chap-secrets

#client	server	secret	IP
your_login	*	your_pass	*

### 3.1.4. Network

To configure your nameservers, change /etc/resolv.conf. If dialing in is succesful, but you can't get it to connect to URL's: this is probably the cause.

```
domain domain_of_your_isp
nameserver your_primary_nameserver
nameserver your_secondary_nameserver
```

### 3.1.5. File permissions

Before you can run a (shell)script, it must be set executable. Be sure that you set the permissions so that other users cannot see the passwords stored in the files. If you want other users to be able to dial in, you might want to consider using **sudo**. You might want to do the following:

```
chmod u+rw og-rwx -R /etc/ppp
chmod u+x /etc/ppp/ppp-on-dialer /usr/local/bin/ppp
```

### 3.1.6. Dial + Hangup

Then if /usr/local/bin is in your PATH, you can easily dial in with:

```
ppp on
```

and hangup with:

```
ppp off
```

and to get some statistics, you do:

```
ppp status
```

---

### 3.1.7. ISP-dependant information

#### 3.1.7.1. Cable&Wireless (Online, TijdNet)

##### *Authentication*

text-based / PAP

##### *Extra options*

noccp

##### *Nameservers*

62.112.0.7, 194.88.127.7

##### *NTP-server*

ntp.antw.online.be, ntp.brus.online.be, ntp.gent.online.be

##### *Web*

<http://www.online.be/>

##### *Support*

no official Linux support yet

---

#### 3.1.7.2. KPN Belgium (Eunet)

##### *Authentication*

text-based

##### *Extra options*

proxyarp

##### *Nameservers*

193.74.208.135, 193.74.208.65, 193.121.171.135

##### *Web*

<http://www.eunet.be/>

*Support*

<http://support.eunet.be/>

---

### **3.1.7.3. Planet Internet (Ping)**

*Authentication*

CHAP

*Nameservers*

194.119.232.3, 194.119.232.2

*NTP-server*

ntp.pi.be

*Web*

<http://www.planetinternet.be/>

*Support*

<http://www.ping.be/Support/redhat.shtml> (Ping)

---

### **3.1.7.4. Skynet (Belgacom)**

*Authentication*

PAP

*Extra options*

defaultroute

*Nameservers*

195.238.2.21, 195.238.2.22

*NTP-server*

ntp.skynet.be

*Web*



<http://www.skynet.be/>

*Support*

<http://help.skynet.be/linux/indexen.html>

---

### **3.1.7.5. Tiscalinet (Freegates, FreeBel)**

*Authentication*

text-based ?

*Nameservers*

212.35.2.1, 212.35.2.2

*NTP-server*

ntp.tiscalinet.be

*Web*

<http://www.tiscalinet.be/>

*Support*

no official Linux support yet

---

### **3.1.7.6. UUNet (VT4)**

*Authentication*

PAP

*Nameservers*

194.7.1.4, 194.7.15.70

*Web*

<http://www.uunet.be/>, <http://www.vt4.net/>

*Support*

no official support yet

---

### **3.1.7.7. Wanadoo (Euronet)**

#### *Authentication*

text-based / PAP

#### *Nameservers*

195.74.193.12, 194.134.0.12

#### *Web*

<http://www.wanadoo.be/>

#### *Support*

no official Linux support yet

---

### **3.1.7.8. World Online**

#### *Authentication*

CHAP

#### *Nameservers*

212.233.1.34, 212.233.2.34

#### *Web*

<http://www.worldonline.be/>

#### *Support*

<http://help.worldonline.be/en/linux/index.htm>

---

### **3.1.7.9. XS4ALL**

#### *Authentication*

PAP

#### *Nameservers*

194.109.6.66, 194.109.9.99

#### *NTP-server*

ntp.xs4all.be

*Web*

<http://www.xs4all.be/>

*Support*

<http://helpdesk.xs4all.be/ned/linux/index.html>

---

### 3.1.7.10. Yucom (DMA)

*Authentication*

CHAP

*Nameservers*

212.8.180.122, 212.8.180.126

*NTP-server*

ntp.yucom.be

*Web*

<http://www.yucom.be/>

*Support*

no official Linux support yet

---

## 3.2. Dialing in with your ISDN-modem

*Contributed by Christophe Lambin <[clambin@skynet.be](mailto:clambin@skynet.be)>*

This section does not aim to be a definitive guide on ISDN for Linux. For a more detailed discussion on the topic, see [Paul Sloodman's ISDN4Linux HOWTO](#) and [ISDN4Linux-FAQ](#).

---

### 3.2.1. Updating the kernel

If you're using a 2.2 kernel, it's recommended to get an updated version of the ISDN code. You can retrieve it from CVS at <ftp://ftp.suse.com/pub/isdn4linux/>. For more information, check: <http://www.brisse.dk/site/linux/docs/isdn.htm>

<b>Warning</b>
----------------

If you've recently purchased an Eicon Diva 2.0 PCI (eg, via Belgacom), there's a good chance you've actually got a Diva 2.01. In this case, you must get a version dated 1 July 1999 or later !

Once the ISDN is in place, you can start up the driver. Eg: **modprobe hisax type=11 protocol=2**  
Refer to the Readme's for the right parameters and values for your card.

---

## 3.2.2. ISDN4Linux toolkit

Next, you'll need the ISDN4Linux toolkit. You can retrieve the latest version of the toolkit at:  
<ftp://ftp.suse.com/pub/isdn4linux/>

---

## 3.2.3. Configuring the interface

With the tools installed and configured, write a script to configure the interface, to be used for the ISDN connection. As always in Linux, there's no one correct way of doing this. I've put these in a script

`/etc/rc.d/rc.isdn:`

```
#!/bin/sh
MSNREMOTE='555-1212'      # Phone number of ISP
MSNLOCAL='555-1313'      # my number, without 0, with areacode
ACCOUNT='george'         # The account for logon (as 'George Burns')
IPLOCAL=10.0.0.2         # my fixed IP (use 10.0.0.2 if no fixed)
IPREMOTE=0.0.0.0         # IP number of ISP
INTERFACE=ippp0
/sbin/modprobe hisax type=11 protocol=2
/sbin/isdnctrl verbose 3 system on
/sbin/isdnctrl addif $IF
/sbin/isdnctrl secure $IF on
/sbin/isdnctrl addphone $IF out $MSNREMOTE
/sbin/isdnctrl eaz $IF $MSNLOCAL
/sbin/isdnctrl hup timeout $IF 300
/sbin/isdnctrl l2_prot $IF hdlc
/sbin/isdnctrl l3_prot $IF trans
/sbin/isdnctrl encap $IF syncppp
# /sbin/isdnctrl dialmode $IF auto
/sbin/ifconfig $IF $IPLOCAL pointopoint $IPREMOTE -arp -broadcast
/sbin/ippd /dev/ipp0 user $ACCOUNT $IPLOCAL:$IPREMOTE
```

To start this at boot time, make it executable and append the following to `/etc/rc.d/rc.local:`

```
if [ -x /etc/rc.d/rc.isdn ]; then
    . /etc/rc.d/rc.isdn
fi
```

The **ippd** command gets its parameters passed through a file, `/etc/ppp/options:`

```
-ac
-bsdcomp
debug
```

```
defaultroute
ipcp-accept-local
ipcp-accept-remote
mru 1524
mtu 1500
noipdefault
-pc
useifip
-vj
-vjccomp

#idle 360
#persistent
```

## Warning

Do NOT specify +pap or +chap in this file. This specifies the authentication that ipppd should use for an INCOMING client. If you were to use this to connect to your ISP, ipppd would wait for the ISP to authenticate itself using the specified protocol.

## Warning

It is important to emphasize that every special character, thus every character that is not [a-ZA-Z0-9] and '\_' should be escaped by preceding it with a '\'-character. Thus 'e!b\$l+' would become 'e\\!b\\\$l\\+'. Try it if you are having troubles !

Finally, create /etc/ppp/ip-down.local to handle the shutdown of the interface:

```
#!/bin/sh
/sbin/ifconfig $1 down
sleep 1
/sbin/ifconfig $1 10.0.0.2 pointopoint
```

**Note!:** This is to handle some problems with routes on shutdowns. Anyone know of a clean(er) solution ?

## 3.2.4. pap-secrets / chap-secrets

If your ISP uses PAP or CHAP, create a file /etc/ppp/pap-secrets or /etc/ppp/chap-secrets. Its format is:

#client	server	secret	IP
your_login	*	your_pass	*

### 3.2.5. Network

Not really related to ISDN, but a lot of people forget this step (too eager to try out all the stuff they typed in above ? :-)).

Anyway, you need to configure the DNS, by creating a file `/etc/resolv.conf`:

```
domain your_domain_of_your_isp
nameserver your_primary_nameserver
nameserver your_secondary_nameserver
```

### 3.2.6. File permissions

Before you can run a (shell)script, it must be set executable. Be sure that you set the permissions so that other users cannot see the passwords stored in the files. If you want other users to be able to dial in, you might want to consider using **sudo**. You might want to do the following:

```
chmod u+rw og-rwx -r /etc/ppp
chmod u+x /etc/rc.d/rc.isdn /etc/ppp/ip.down-local /usr/local/bin/isdn
```

### 3.2.7. Dial + Hangup

Finally, you can write a little wrapper to start and stop the ISDN connection. I've put this as `/usr/local/bin/isdn`:

```
#!/bin/bash
case $1 in
    on|start)
        /sbin/isdnctrl dial ippp0
        ;;
    off|stop)
        /sbin/isdnctrl hangup ippp0
        ;;
    info|status)
        /sbin/isdnctrl list ippp0
        ;;
    *)
        echo "Usage: isdn on|off|info|start|stop|status"
        ;;
esac
```

Then if `/usr/local/bin` is in your PATH, you can easily dial in with **isdn on** and hangup with **isdn off**.

## 3.3. Cablemodem (DHCP)

DHCP was designed to make life easier, and most of the times it does ;) More information to set up your DHCP client can be found at: <http://www.oswg.org/oswg-nightly/DHCP.html> and a [list of Frequently Asked](#)

[Questions](http://www.dhcp.org/) from the infamous document of John Wobus at <http://www.dhcp.org/> which describes everything you need to know. Along with the information in the Cable-Modem HOWTO (<http://www.oswg.org/oswg-nightly/Cable-Modem.html>).

Lots of people want to connect a whole network to their cablemodem, that's not a problem. You'll need [IP-Masquerading](#) and make sure the interface (that speaks to the cablemodem) has the right MAC-address !! Another solution (in case of problems) is to reset your cablemodem.

---

### 3.3.1. UPC Belgium (Chello, TVD)

*NTP-server*

time.chello.be

*Web*

<http://www.upcbelgium.be/>

*Support*

no official support yet

*More information*

[http://foobar.starlab.net/~soggie/tvd\\_linux/](http://foobar.starlab.net/~soggie/tvd_linux/)

---

### 3.3.2. Pandora (Telenet)

*Automatic proxy*

http://pac.pandora.be:8080

*HTTP proxy*

export http\_proxy="http://proxy.pandora.be:8080/"

*NTP-server*

ntp.pandora.be

*Web*

<http://www.pandora.be/>

*Support*

no official support yet

*More information*

<http://users.pandora.be/de.boeve/pandora.html>

---

## 3.4. ADSL

### 3.4.1. Easynet

*Web*

<http://www.easynet.be/>

*Support*

<http://support.easynet.be/>

---

### 3.4.2. KPN Belgium (Eunet)

*Web*

<http://www.eudsl.be/>

*Support*

<http://support.eunet.be/>

---

### 3.4.3. Turboline (Belgacom)

*Web*

<http://www.turboline.be/>

*Support*

no official support yet

*More information*

<http://foobar.starlab.net/~soggie/turboline/>, <http://minf.vub.ac.be/~fquestie/turbo/> and  
<http://minf.vub.ac.be/~fquestie/turbo/>

---



## 4. Belgian Linux user groups

More information can be found in the [User Group HOWTO](#). A complete list of Linux User Groups is at: <http://www.ssc.com/linux/glue/> and at: <http://limestone.uoregon.edu/woven/lugww/>

---

### 4.1. ALLIN Linux User Group

#### *Address*

Mechelbaan 260  
B-3130 Begijnendijk

#### *Email*

<[allin@linuxfreak.com](mailto:allin@linuxfreak.com)>

#### *Web*

<http://come.to/allin/>

#### *Contact*

Paul Terweduwe <[paul@faes.be](mailto:paul@faes.be)>

---

### 4.2. Antwerp Linux User Group (ALUG)

#### *Address*

Van Luppenstraat 70  
B-2018 Antwerp

#### *Phone*

+32 (0)3 218 63 54

#### *Email*

<[alug@pandora.be](mailto:alug@pandora.be)>

#### *Web*

<http://sunsite.belnet.be/alug/>

#### *Meetings*

In [ACCB \(HVR\), Herentalsebaan 212 te Deurne](#)

*Contact*

Armand Verachtert <[alug@pandora.be](mailto:alug@pandora.be)>

---

## 4.3. Brussels Linux User Group (BeLUGa)

*Address*

Building F, room 218  
Vrije Universiteit Brussel  
Pleinlaan 2  
B-1050 Brussel

*Email*

<[info@linux.rave.org](mailto:info@linux.rave.org)>

*Web*

<http://linux.rave.org/>

*Mailinglist*

<http://linux.rave.org/mlist.html>

---

## 4.4. Computer Forum KaHo (CFK)

*Email*

<[cfk@kahosl.be](mailto:cfk@kahosl.be)>

*Web*

<http://eduserv.kahosl.be/cfk/>

---

## 4.5. HCC Limburgse Linux Gebruikers Groep (HLLGG)

*Email*

<[Linuxgg@hotmail.com](mailto:Linuxgg@hotmail.com)>

*Web*

<http://www.uunet.be/hcc/Limburg/>

*Contact*

Andy Peeters & Bruno Tony

---

## 4.6. HCC Linux Gebruikers Groep Leuven

*Address*

Diegemstraat 61  
B-1930 Zaventem

*Email*

<[Yvo.Dries@village.uunet.be](mailto:Yvo.Dries@village.uunet.be)>

*Web*

<http://www.uunet.be/hcc/Leuven/linux.html>

*Contact*

Yvo Dries <[Yvo.Dries@village.uunet.be](mailto:Yvo.Dries@village.uunet.be)>

---

## 4.7. Independent Group of Unix-Alikes and Network Activists (IGUANA)

*Address*

Milcampsiaan 101  
B-1040 Schaarbeek

*Phone*

+32 (0)2 582 66 50

*Fax*

+32 (0)2 582 66 50

*Email*

<[info@iguana.be](mailto:info@iguana.be)>

*Web*

<http://www.iguana.be/>

---

## 4.8. Infogroep (IGWE)

*Address*

5F218 (building F)  
Pleinlaan 2  
B-1050 Brussels

*Phone*

+32 (0)2 629 33 56

*Fax*

+32 (0)2 629 33 89

*Email*

<[ig@igwe.vub.ac.be](mailto:ig@igwe.vub.ac.be)>

*Web*

<http://igwe.vub.ac.be/>

---

## 4.9. Leuvense Linux Users (L2U)

*Email*

<[info@l2u.iguana.be](mailto:info@l2u.iguana.be)>

*Web*

<http://l2u.iguana.be/>

*Meetings*

First wednesday every month in [Freinetschool De Zevensprong](#), Vital Decosterstraat 67, B-3000 Leuven

*Mailinglist*

<http://l2u.iguana.be/mailman/listinfo/members>

## 4.10. Limburgse Linux User Group (LILUG)

### *Email*

<[frank.eersels@wanadoo.be](mailto:frank.eersels@wanadoo.be)>

### *Web*

<http://lilug.linuxatwork.at/>

### *Mailinglist*

<http://www.onelist.com/isregistered.cgi?listname=lilug>

### *Contact*

Frank Eersels <[frank.eersels@wanadoo.be](mailto:frank.eersels@wanadoo.be)>

---

## 4.11. Linux User Group De Bruxelles (BxLUG)

### *Email*

<[information@bxlug.org](mailto:information@bxlug.org)>

### *Web*

<http://www.bxlug.org/>

### *Contact*

Raphael Bauduin <[information@bxlug.org](mailto:information@bxlug.org)>

---

## 4.12. Linux User Group De Charleroi

### *Email*

<[lug\\_charleroi@caramail.com](mailto:lug_charleroi@caramail.com)>

### *Web*

<http://charleroi.linuxbe.org/>

---

## 4.13. Linux User Group De Liège

*Email*

<[liege@linuxbe.org](mailto:liege@linuxbe.org)>

*Web*

<http://liege.linuxbe.org/>

---

## 4.14. Linux User Group De Namur

*Email*

<[info@namurlug.org](mailto:info@namurlug.org)>

*Web*

<http://namurlug.org/>

---

## 4.15. Linux User Group Heist op den Berg

*Address*

Bergstraat 89  
B-2220 Heist op den Berg

*Phone*

+32 (0)495 925 931

*Email*

<[info\\_heistselinuxclub@yahoo.co.uk](mailto:info_heistselinuxclub@yahoo.co.uk)>

*Web*

[http://uk.geocities.com/info\\_heistselinuxclub/](http://uk.geocities.com/info_heistselinuxclub/)

---

## 4.16. Linux User Group Mons

*Web*

<http://mons.linuxbe.org/>

## 4.17. Linux User Movement Underground Mad Belgian Aliens (LUMUMBA)

### *Address*

Filii Lamberti  
Universiteitslaan 1  
B-3590 Diepenbeek

### *Email*

<[helpdesk@lumumba.luc.ac.be](mailto:helpdesk@lumumba.luc.ac.be)>

### *Web*

<http://lumumba.luc.ac.be/>

### *Mailinglist*

<[minordomo@lumumba.luc.ac.be](mailto:minordomo@lumumba.luc.ac.be)>

---

## 4.18. LinuxBe.Org A.S.B.L

### *Address*

Boulevard de la Meuse, 23  
B-5100 Jambes

### *Email*

<[team@linuxbe.org](mailto:team@linuxbe.org)>

### *Web*

<http://linuxbe.org/>

### *Contact*

Cedric Gavage <[niddle@linuxbe.org](mailto:niddle@linuxbe.org)>

---

## 4.19. Louvain-Li-nux (LLN)

### *Address*

Louvain-la-neuve Linux User Group  
Place des paniers 5/014  
B-1348 Louvain-La-neuve

### *Phone*

+32 (0)10 454 761

### *Email*

<[lln@udev.org](mailto:lln@udev.org)>

### *Web*

<http://lln.udev.org/>

### *Contact*

Benjamin Henrion <[benjamin.henrion@linuxbe.org](mailto:benjamin.henrion@linuxbe.org)>

---

## 4.20. Open Technology Assembly Linux Special Interest Group

### *Address*

Kruipstraat 14  
B-1850 Grimbergen

### *Phone*

+32 (0)11 275 898

### *Fax*

+32 (0)11 270 389

### *Email*

<[info@ota.be](mailto:info@ota.be)>

### *Web*



<http://www.ota.be/>

*Contact*

Jan Vanhercke <[jan.vanhercke@c-cure.be](mailto:jan.vanhercke@c-cure.be)>

---

## 4.21. PC Aktief Computerclub

*Address*

PC Aktief Computerclub

*Web*

<http://www.pcaktief.be/>

*Meetings*

Fourth tuesday every month in 't Hoveken van Belsele, Nieuwe Baan 130, B-9111 Belsele (Sint-Niklaas)

*Contact*

Johan De Baere <[debaerej@hotmail.com](mailto:debaerej@hotmail.com)>

---

## 4.22. Python Blanc Blue Belge (P3B)

*Address*

Python Blanc Blue Belge (P3B)

*Web*

<http://www.p3b.org/>

---

## 4.23. Student Information Networking (SIN)

*Address*

Kleinhoefstraat 4  
B-2440 Geel

*Email*

<[sin@sin.khk.be](mailto:sin@sin.khk.be)>

*Web*

<http://www.sin.khk.be/>

---

## 4.24. TINA

*Contact*

Tina gebruikers <[vraagtina@digibel.org](mailto:vraagtina@digibel.org)>

*Web*

<http://tina.kangaroot.net/>

*Meetings*

[Hof van Rieth, Molenlei 68, B-2640 Mortsel](#)

*Mailinglist*

<[mailinglist@tina.kangaroot.net](mailto:mailinglist@tina.kangaroot.net)>

---

## 4.25. Unix Lovers Yield Student Services & Internet Support (ULYSSIS)

*Address*

Holleberg  
Schapenstraat 37, lokaal 91 97  
B-3000 Leuven

*Email*

<[ulyssis@ulyssis.org](mailto:ulyssis@ulyssis.org)>

*Web*

<http://www.ulyssis.org/>

---

## 4.26. West-Vlaamse Linux User Group (Lug-WV)

*Contact*

Thibaut Fernagut <[blokkie@tiscalinet.be](mailto:blokkie@tiscalinet.be)>

*Web*

<http://www.lugwv.be/>

---

## 4.27. Zeus WPI – Werkgroep Informatica RUG

*Address*

Krijgslaan 281 S9  
B-9000 Gent

*Phone*

+32 (0)9 264 47 51

*Email*

<[info@zeus.rug.ac.be](mailto:info@zeus.rug.ac.be)>

*Web*

<http://www.zeus.rug.ac.be/>

*Comment*

Restricted to RUG students

---

## 5. Belgian Linux businesses

The Linux Documentation Project contains worldwide lists of Linux businesses, Linux Consultants HOWTO and V.A.R. HOWTO, and can be found at: <http://www.linuxports.com/>.

---

### 5.1. aDOC Services

*Address*

Avenue du Pesage, 31–33  
B–1050 Brussels

*Phone*

+32 (0)2 646 00 76

*Email*

<[sales@adoc-services.com](mailto:sales@adoc-services.com)>

*Web*

<http://www.adoc-services.com/>

---

### 5.2. Arafox

*Address*

Avenue Joseph Wybranlaan 40  
B–1070 Brussels

*Phone*

+32 (0)2 529 59 91

*Fax*

+32 (0)2 529 59 92

*Email*

<[info@arafox.com](mailto:info@arafox.com)>

*Web*

<http://www.arafox.com/>

---

## 5.3. Aragne

### *Email*

<[contact@aragne.com](mailto:contact@aragne.com)>

### *Web*

<http://www.aragne.com/>

---

## 5.4. Better Access N.V.

### *Address*

Geldenaakse Vest 6  
B-3000 Leuven

### *Phone*

+32 (0)16 298 045

### *Fax*

+32 (0)16 298 046

### *Email*

<[info@ba.be](mailto:info@ba.be)>

### *Web*

<http://www.ba.be/>

### *Type of support*

After an onsite installation, we mainly support our customers with SSH remote administration. Most problems are reported by E-mail or by the inhouse-developped webbased supportsystem. This doesn't mean that once in a while a supportcall comes in.

### *Special expertise*

Security, systemadministration and setups, security (firewalling, tigerteaming, VPN, etc.)  
Networkdesign, wireless networking, Troubleshooting, product development, etc. Please visit  
<http://www.ba.be> for more info.

## 5.5. BIOS Consulting sa/nv

### *Address*

Chée de Neerstalle 240  
B-1190 Bruxelles

### *Phone*

+32 (0)2 376 61 97

### *Fax*

+32 (0)2 376 23 99

### *Email*

<[info@biosconsulting.com](mailto:info@biosconsulting.com)>

### *Web*

<http://www.biosconsulting.com/>

---

## 5.6. CSS N.V.

### *Address*

Henneaulaan 366  
B-1930 Zaventem

### *Phone*

+32 (0)2 718 53 33

### *Fax*

+32 (0)706 53 306

### *Type of support*

support on networking, installation, hardware maintenance, Red Hat certified reseller

### *Special expertise*

## 5.7. D. Connect

### *Address*

Av. Van Goidtsnoven 33  
B-1180 Uccle

### *Email*

<[webmaster@dconnect.be](mailto:webmaster@dconnect.be)>

### *Web*

<http://www.dconnect.be/>

---

## 5.8. Double Barrel Consultancy and Productions

### *Address*

Sportstraat 28  
B-9000 Gent

### *Phone*

+32 (0)9 222 77 64

### *Fax*

+32 (0)9 222 49 76

### *Email*

<[mvergall@double-barrel.be](mailto:mvergall@double-barrel.be)>

### *Web*

<http://www.double-barrel.be/>

### *Contact*

Michael C. Vergallen <[mvergall@double-barrel.be](mailto:mvergall@double-barrel.be)>

### *Type of support*

phone, email remote network admin, inhouse, onsite.

*Special expertise*

installation, system admin. internet and intranet connectivity, sendmail, firewalls, proxys, nameservers, troubleshooting software & hardware.

---

## 5.9. Grmbl productions

*Address*

Korte Vuldersstraat 30  
B-8000 Brugge

*Phone*

+32 (0)50 674 512

*Fax*

+32 (0)50 342 623

*Email*

<[info@grmbl.com](mailto:info@grmbl.com)>

*Web*

<http://www.grmbl.com/>

---

## 5.10. IBM Belgium SA/NV

*Address*

Square Victoria Regina 1  
B-1210 Brussels

*Phone*

+32 (0)2 225 33 33

*Fax*

+32 (0)2 225 24 73



*Email*

<[blue@be.ibm.com](mailto:blue@be.ibm.com)>

*Web*

<http://www.ibm.com/be/>

*Contact*

Sam Versluys <[sam\\_versluys@be.ibm.com](mailto:sam_versluys@be.ibm.com)>

---

## 5.11. IP Net generation

*Address*

Cyriel Verschaevelaan 12  
B-2980 Zoersel

*Phone*

+32 (0)477 513 987

*Email*

<[info@ipng.be](mailto:info@ipng.be)>

*Web*

<http://www.ipng.be/>

*Special expertise*

IPnG focuses on Open Source software development.

---

## 5.12. Kangaroot Linux Consultancy

*Address*

Leeuwerikstraat 14  
B-2018 Antwerp

*Phone*

+32 (0)3 290 81 13

*Fax*

+32 (0)3 290 81 13

*Email*

<[info@kangaroot.net](mailto:info@kangaroot.net)>

*Web*

<http://www.kangaroot.net/>

*Contact*

Peter Dens <[peter@kangaroot.net](mailto:peter@kangaroot.net)>

---

## 5.13. Mind Linux Solutions

*Address*

Vaartkom 11  
B-3000 Leuven

*Phone*

+32 (0)478 274 069

*Fax*

+32 (0)16 309 644

*Email*

<[info@mind.be](mailto:info@mind.be)>

*Web*

<http://mind.be/>

*Contact*

Peter Vandenabeele <[peter@mind.be](mailto:peter@mind.be)>

*Type of support*

Installation & configuration, auditing & consultancy, support & maintenance, training & education, research & development.

*Special expertise*

We are specialised in installing Linux servers for various purposes (Web-, File-, Print- or Mailservers, Routers, Firewalls, VPN, ...) in heterogenous networks. We provide support and training for Linux and Open Source products and we develop custom Linux solutions for our customers.

---

## 5.14. Phidani Software SPRL

*Address*

Rue de l'autonomie 1  
B-1070 Brussels

*Email*

<[info@phidani.be](mailto:info@phidani.be)>

*Phone*

+32 (0)2 552 06 63

*Fax*

+32 (0)2 522 09 30

*Web*

<http://www.phidani.be/>

---

## 5.15. Spier BVBA

*Address*

Knaptandstraat 96-98  
B-9100 Sint-Niklaas

*Email*

<[info@spier.be](mailto:info@spier.be)>

*Phone*

+32 (0)3 765 90 61

*Fax*

+32 (0)3 765 90 62

*Web*

<http://www.spier.be/>

---

## 5.16. Stone-IT Belgium

*Address*

Minerva Office Brussels  
Minervastraat 14b  
B-1930 Zaventem

*Email*

<[info@be.stone-it.com](mailto:info@be.stone-it.com)>

*Phone*

+32 (0)2 720 88 35

*Fax*

+32 (0)2 720 51 71

*Web*

<http://www.be.stone-it.com/>

*Contact*

Martijn Smit <[smit@stone-it.com](mailto:smit@stone-it.com)>

*Type of support*

Stone-IT is a 'one-stop' Linux provider for integrating business environments in which we offer: Linux Consulting, Linux Solutions, Linux Support and Linux Education.

*Special expertise*

Stone-IT offers high quality Linux expertise and can develop, test and implement Linux in several different business environments such as all kinds of servers (File-/Web-/Name-/Mail-/Print servers), as well as Clustering, VPN, Storage, Firewalls & Routers. Our support consists of Pro Active Monitoring, 24 hours a day, 7 days a week. Besides having trainers being a Red Hat Certified Engineer we offer Distribution Independent Education.

---

## 5.17. VA Linux Belgium

### *Address*

Greenhill Campus  
Interleuvenlaan 15A  
B-3001 Haasrode

### *Phone*

+32 (0)16 208 961

### *Fax*

+32 (0)16 207 973

### *Email*

<[egoven@valinux.com](mailto:egoven@valinux.com)>

### *Web*

<http://www.valinux.com/>

### *Contact*

Erik Goven <[egoven@valinux.com](mailto:egoven@valinux.com)>

---

## 5.18. VirgoPlus sprl

### *Address*

Rue E. Solvay 29 A  
B-4000 Liège

### *Phone*

+32 (0)4 253 00 59

### *Fax*

+32 (0)4 253 00 49

### *Email*

<[staff@virgoplus.com](mailto:staff@virgoplus.com)>

*Web*

<http://www.virgoplus.com/>

*Contact*

Bruno Mairlot <[bruno@virgoplus.com](mailto:bruno@virgoplus.com)>

*Type of support*

By phone, email, or remote networked administration, inhouse, onsite

*Special expertise*

Installation, configuration, administration of Linux, internet connection, intranet developpment, firewalls, samba, netatalk, firewalls, proxys, DNS, web server (Apache), mod\_perl, MySQL, Gui interface developpment (GTK+). We have acquired a special expertise with the Red Hat distributions.

---

## 6. Belgian Linux resources

### 6.1. Websites

#### 6.1.1. Linux in Belgium

- [Linux in Belgium](#)
  - [Belgian HOWTO](#)
  - [be.comp.os.linux FAQ](#)
  - [LinuxBelgium.net](#)
- 

#### 6.1.2. Dutch Linux-sites

- [Nederlandse Linux homepage](#)
  - [Nederlandstalige Linux Documentatie Project](#)
  - [Linux Support Website](#)
  - [EToS: Educatieve Toepassingen van Open Software](#)
  - [Beginnen met Linux](#)
  - [Installatie Handleiding RedHat 5.2](#)
  - [Configure.help in het Nederlands](#)
  - [Cursus Linux voor Informaticabeheer](#)
- 

#### 6.1.3. French Linux-sites

- [LinuxBe.Org](#)
  - [Belgian HOWTO in french](#)
  - [linux-france.org](#)
- 

#### 6.1.4. Mirrors in Belgium

- [Freshmeat at UPC Belgium \(Chello.TVD\)](#)
  - [Linuxberg at Wallonie Internet](#)
  - [Linuxberg at Online](#)
  - [Linuxberg at Pandora \(Telenet\)](#)
  - [Linux Gazette at Belnet](#)
  - [Linux Gazette at Linuxbe](#)
  - [LinuxFocus](#)
  - [Linux France](#)
- 

### 6.2. HOWTO

The most important collection of Linux information on the net. Please if you encounter erroneous information in one of them, do contact the author. Only that way it will be corrected and we all stand together ;)

- [HOWTO's at LinkLine](#)
  - [HOWTO's at Double-Barrel](#)
  - [HOWTO's at SIN](#)
  - [HOWTO's at Linuxbe.org](#)
- 

## 6.3. HOWTO translations

As Dutch is less wide-spread, it is the least supported. But work is being done to resolve this ;) (and maybe \*you\* can help ??) French and German translations obviously are already taken care of.

---

### 6.3.1. Dutch

A succesfull initiative is making progress, but there's still a lot to do. If you want to help, start translating and send it there. Check <http://nl.linux.org/doc/HOWTO/>.

---

### 6.3.2. French

French translations of HOWTO's can be found at:

<http://www.ibiblio.org/pub/Linux/docs/HOWTO/translations/fr/>

---

### 6.3.3. German

German translations of HOWTO's can be found at:

<http://www.ibiblio.org/pub/Linux/docs/HOWTO/translations/de/>

---

## 6.4. FTP

### 6.4.1. Kernel-source mirrors

- [Official Mirror kernel-sources at Belnet](#)
  - [Official Mirror kernel-sources at UPC Belgium \(Chello,TVD\)](#)
  - [Kernel-sources at Tiscalinet](#)
- 

### 6.4.2. Distribution mirrors

- [Red Hat Mirrors](#)
  - ◆ [Official Mirror at Belnet](#)
  - ◆ [Official Mirror at Easynet](#)
  - ◆ [Mirror at Pandora \(Telenet\)](#)
  - ◆ [Mirror at UPC Belgium \(Chello,TVD\)](#)



- [Debian](#)
    - ♦ [Official Mirror at Belnet](#)
    - ♦ [Official Mirror at KULeuven](#)
    - ♦ [Official Mirror at Pandora \(Telenet\)](#)
    - ♦ [Official Mirror at Easynet](#)
    - ♦ [Official Mirror at Tiscalinnet](#)
    - ♦ [Mirror at Skynet](#)
    - ♦ [Mirror at spnet](#)
  - Mandrake
    - ♦ [Mirror at Belnet](#)
    - ♦ [Mirror at UPC Belgium \(Chello.TVD\)](#)
  - SuSE
    - ♦ [Mirror at Belnet](#)
    - ♦ [Mirror at Pandora \(Telenet\)](#)
- 

### 6.4.3. Mirrors in Belgium

- [Mirrors at Belnet](#)
  - [Mirrors at UPC Belgium \(Chello.TVD\)](#)
  - [Mirrors at Pandora \(Telenet\)](#)
- 

## 6.5. Usenet/Newsgroups

- [be.comp.os.linux](#) at [Google](#)
- 

## 6.6. IRC

The fastest medium to get support is IRC, but beware. Because IRC is rather anonymous it's also easy to deceive people.

On IRCnet there's a channel called #linux.be that is closely related to bcol and the Belgian Linux-scene. The channel is still small, but it surely will grow in time. To get help in English, there's only one place #linux.

Also Dalnet has a #linux.be channel.