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# Belgian HOWTO

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## Abstract

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

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# Introduction

## Why this document?

Since there was no information anywhere on the net for Belgian Linux users around 1998, 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. :)

## 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>.

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!

## 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> and is found at: <http://dag.wieers.com/howto/>.

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

## Contributions

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

- Wim Vandeputte <wvdputte@reptile.rug.ac.be>
- Pablo Saratxaga <srtxg@ping.be>
- Christophe Lambin <clambin@skynet.be>
- Geert Uytterhoeven <geert@linux-m68k.org>
- Herman Bruyninckx <Herman.Bruyninckx@mech.kuleuven.ac.be>

Many thanks go to Ivo Clarysse <soggie@iguana.be> who started something similar earlier (LinBel) and his project helped us a lot to get this document online.

## The Linux.be-domain debacle

As you might have heard, Belgium also has its problem with the Linux.be domain. Similar to the Linux.nl case. Around March 1999, someone tricked the DNS administration about the trademark 'Linux' in Belgium by using 'Linux' as a commercial representation of the company ('uithangbord') which was according

to the rules of the DNS administration at that time. The company in fact was one that sold motor-parts and the registration was done with a fake fax containing a penguin.

It is sad that the person who registered the Linux.be-domain name, did this behind the back of some Open Source volunteers who were planning to register a not-for-profit organisation to hold the domain name to prevent any abuse.

Afterwards there were several meetings with this person to work out an agreement so that the domain was not used for commercial purposes and handed over to a neutral organisation. But after several attempts it was very clear that the owner wanted full control over the domain, which he later emphasized by 'handing it over' to his own not-for-profit organisation. He stated several times he wanted to keep the right to add advertisements to the website, but wouldn't mind that volunteers added content to the site (that was empty at the time). After this, no one was willing to work voluntarily for the content of the site. Sadly he managed to get some people volunteer for it after all.

## 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.

## Copyright information

This document, Belgian HOWTO, is copyrighted (c) 1998 - 2002 by Dag Wieërs. Permission is granted to copy, distribute and/or modify this document under the terms of the GNU Free Documentation License, Version 1.1 published by the Free Software Foundation; with the Invariant Sections being "New versions of this document", "Contributions", "Feedback" and "Copyright information" with no Front-Cover Texts and with no Back-Cover Texts.

A copy of the license is available at <http://www.gnu.org/copyleft/fdl.html>.

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.

## 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!)

- Add more information about ADSL
- Update the locale-section, preferably link to a related document.

## Configuration

### 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**.

## 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 (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. Most distributions have a simple program (like **kbdconfig** in Red Hat, **install-keymap** in Debian or **yast** in SuSE) to change the behaviour of these scripts.

## 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 behaviour). This file is called `XF86Config-4` or `XF86Config` and is usually located in `/etc/X11` or `/etc`

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 don'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
```

## Compose key

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
```

For XFree86, 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 automatically.

For the console, you could do something similar with **loadkeys**. **echo "altgr keycode 52 = Compose" | loadkeys** to use AltGr+ as a 'Compose'-key.

## 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.

### 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 ã, 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=latlu-16.psf
SYSTEM=linux
```

### 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 distribution you probably need a newer *console-tools* package.

There's more information in the Euro Character Support mini HOWTO [<http://www.tldp.org/HOWTO/mini/Euro-Char-Support/>]

### 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 automatically 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.

## 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 ?

## 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.

## 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.

## 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.

## Walloon

For Walloon locale support you can find files and information at: <http://chanae.stben.be/linux/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.

## Native language support and codepages

These options add support for the Belgian character set 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
```

## Ispell

*Contributed by Dany Vanderroost <danyv@euronet.be>*

### Install and setup

Ispell is composed of different components: the main software and one or more dictionaries. The default dictionary is `/usr/lib/ispell/english.hash`. To override this default you have 2 options. Either you can set the `DICTIONARY`-variable or launch it with the `-d` option.

You can create custom dictionaries in your home-directory like `~/ispell_english`.

## Dutch



```
export DICTIONARY=nederlands  
or  
ispell -d nederlands file_name
```

## French

```
export DICTIONARY=français  
or  
ispell -d français file_name
```

## German

```
export DICTIONARY=deutsch  
or  
ispell -d deutsch file_name
```

## Walloon

```
export DICTIONARY=walon  
or  
ispell -d walon file_name
```

## Multilanguage spelling

By default Ispell will not work with multiple dictionaries but the solution is to work with the `~/ispell_words` file.

If you don't want to make multi instance with Ispell, You can build `~/ispell_words` with the words package by `cp /usr/dict/words ~/.ispell_words; chmod +w ~/.ispell_words`.

## Setting up Internet

### Dialing in with your modem (PPP)

To configure PPP correctly, you should check the PPP-HOWTO [<http://www.linuxports.com/howto/ppp/>]. I try to explain it briefly, but if you have any questions or problems, read the HOWTO very carefully.

### 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 [<http://www.spy.net/~dustin/modem/>].

## Warning

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

## 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
      exit 0
    fi
    echo "ERROR: PPP link is not active on ppp0"
    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
crtscts
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 !

## 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   *
```

## 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
```

## 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
```

## Dial + Hangup

Then if `/usr/local/bin` is in your `PATH`, you can easily dial in with **ppp on**, hangup with **ppp off** and to get some statistics, you do: **ppp status**.

## Dialing in with your ISDN-modem

*Contributed by Christophe Lambin <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 Slootman's ISDN4Linux HOWTO [<http://www.wurtel.demon.nl/>] and ISDN4Linux-FAQ [<http://www.isdn4linux.de/faq/>].

## 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>

## Warning

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.

## 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/>

## 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 huptimeout $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/ippdp /dev/ippp0 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 **ippdp** command gets its parameters passed through a file, `/etc/ppp/ioptions`:

```
-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\$I+' would become 'e!b\$I\+'. 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 ?

## 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	*

## 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
```

## 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
```

## 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**.

# Belgian ISP information

## PPP/ISDN

### Brutéle

Web	<a href="http://www.brutele.be/">http://www.brutele.be/</a>
Support	no official Linux support yet

### 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	<a href="http://www.online.be/">http://www.online.be/</a>
Support	no official Linux support yet

## KPN Belgium (Eunet)

Authentication	text-based
Extra options	proxyarp
Nameservers	193.74.208.135, 193.74.208.65, 193.121.171.135
Web	<a href="http://www.eunet.be/">http://www.eunet.be/</a>
Support	<a href="http://support.eunet.be/">http://support.eunet.be/</a>

## Planet Internet (Ping)

Authentication	CHAP
Nameservers	194.119.232.3, 194.119.232.2
NTP-server	ntp.pi.be
Web	<a href="http://www.planetinternet.be/">http://www.planetinternet.be/</a>
Support	<a href="http://www.ping.be/Support/redhat.shtml">http://www.ping.be/Support/redhat.shtml</a> (Ping)

## Skynet (Belgacom)

Authentication	PAP
Extra options	defaultroute
Nameservers	195.238.2.21, 195.238.2.22
NTP-server	ntp.skynet.be
Web	<a href="http://www.skynet.be/">http://www.skynet.be/</a>
Support	<a href="http://help.skynet.be/linux/indexen.html">http://help.skynet.be/linux/indexen.html</a>

## Tiscalinet (Freegates, FreeBel)

Authentication	text-based ?
Nameservers	212.35.2.1, 212.35.2.2
NTP-server	ntp.tiscalinet.be
Web	<a href="http://www.tiscalinet.be/">http://www.tiscalinet.be/</a>
Support	no official Linux support yet

## UUNet (VT4)

Authentication	PAP
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Nameservers	194.7.1.4, 194.7.15.70
Web	<a href="http://www.uunet.be/">http://www.uunet.be/</a> , <a href="http://www.vt4.net/">http://www.vt4.net/</a>
Support	no official support yet

## Wanadoo (Euronet)

Authentication	text-based / PAP
Nameservers	195.74.193.12, 194.134.0.12
Web	<a href="http://www.wanadoo.be/">http://www.wanadoo.be/</a>
Support	no official Linux support yet

## World Online

Authentication	CHAP
Nameservers	212.233.1.34, 212.233.2.34
Web	<a href="http://www.worldonline.be/">http://www.worldonline.be/</a>
Support	<a href="http://help.worldonline.be/en/linux/index.htm">http://help.worldonline.be/en/linux/index.htm</a>

## XS4ALL

Authentication	PAP
Nameservers	194.109.6.66, 194.109.9.99
NTP-server	ntp.xs4all.be
Web	<a href="http://www.xs4all.be/">http://www.xs4all.be/</a>
Support	<a href="http://helpdesk.xs4all.be/ned/linux/index.html">http://helpdesk.xs4all.be/ned/linux/index.html</a>

## Yucom (DMA)

Authentication	CHAP
Nameservers	212.8.180.122, 212.8.180.126
NTP-server	ntp.yucom.be
Web	<a href="http://www.yucom.be/">http://www.yucom.be/</a>
Support	no official Linux support yet

## Cable

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-handbook.com/dhcp\\_faq.html](http://www.dhcp-handbook.com/dhcp_faq.html)] 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 [<http://www.tldp.org/HOWTO/IP-Masquerade-HOWTO.html>] 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.

## Telenet (Pandora)

Automatic proxy	<a href="http://pac.telenet.be:8080">http://pac.telenet.be:8080</a>
HTTP proxy	<code>export http_proxy="http://proxy.telenet.be:8080/"</code>
NTP-server	<a href="http://ntp.telenet.be">ntp.telenet.be</a>
Web	<a href="http://www.telenet.be/">http://www.telenet.be/</a>
Support	no official support yet
More information	<a href="http://helpdesk.telenet.be/">http://helpdesk.telenet.be/</a> <a href="http://users.pandora.be/bdr/DHCP/">http://users.pandora.be/bdr/DHCP/</a> <a href="http://users.pandora.be/de.boeve/pandora.html">http://users.pandora.be/de.boeve/pandora.html</a>

## UPC Belgium (Chello, TVD)

NTP-server	<a href="http://time.chello.be">time.chello.be</a>
Web	<a href="http://www.upcbelgium.be/">http://www.upcbelgium.be/</a>
Support	no official support yet
More information	<a href="http://foobar.starlab.net/~soggie/tvd_linux/">http://foobar.starlab.net/~soggie/tvd_linux/</a>

## ADSL

### Easynet

Web	<a href="http://www.easynet.be/">http://www.easynet.be/</a>
Support	<a href="http://support.easynet.be/">http://support.easynet.be/</a>

### KPN Belgium (Eunet)

Web	<a href="http://www.eudsl.be/">http://www.eudsl.be/</a>
Support	<a href="http://support.eunet.be/">http://support.eunet.be/</a>

### Turboline (Belgacom)

Web	<a href="http://www.turboline.be/">http://www.turboline.be/</a>
Support	no official support yet

More information <http://minf.vub.ac.be/~fquestie/turbo/>

## Belgian Linux organisations

More information can be found in the User Group HOWTO [<http://www.tldp.org/HOWTO/User-Group-HOWTO.html>] A complete list of Linux User Groups is at: <http://www.ssc.com/linux/glue/> and at: <http://lugww.counter.li.org/>

### ALUG (Antwerp)

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 [<http://sunsite.belnet.be/alug/road-description.html>]

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

### BeLUGa (Brussels)

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>

### BxLUG (Brussels)

Address  
Avenue Alexandre Galopin, 2  
B-1040 Brussels

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

Web <http://www.bxlug.be/>

Contact Jérôme Warnier <[information@bxlug.be](mailto:information@bxlug.be)>

Mailinglist <http://www.bxlug.be/mailman/listinfo>

## Charleroi LUG (Charleroi)

Email           <lug\_charleroi@caramail.com>  
Web             <http://charleroi.linuxbe.org/>  
Mailinglist      <http://charleroi.linuxbe.org/mailling/mail.html>

## Computer Forum KaHo (Leuven)

Email    <cfk@kahosl.be>  
Web     <http://eduserv.kahosl.be/cfk/>

## HCC Limburg (Genk)

Email       <hcc-limburg@iname.com>  
Web         <http://www.limburg.hccnet.nl/>  
Contact     Stijn Croes <stijncroes@hotmail.com>

## HCC Leuven (Leuven)

Address  
          Diegemstraat 61  
          B-1930 Zaventem  
  
Email       <Michel.Cuppens@village.uunet.be>  
Web         <http://www.leuven.hccnet.nl/linux.html>  
Contact     Ivo Jossart <cartoonlover@pi.be> or Michel Cuppens <Michel.Cuppens@village.uunet.be>

## IGUANA (Brussels)

Address  
          Milcampsiaan 101  
          B-1040 Schaarbeek  
  
Phone       +32 (0)2 582 66 50  
Fax          +32 (0)2 582 66 50  
Email       <info@iguana.be>  
Web          <http://www.iguana.be/>

## Infogroep - IGWE (Brussels)

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

## ISW (Leuven)

Address  
KHLeuven departement Rega  
Lokaal 004  
St-Maartenstraat 55d  
B-3000 Leuven,  
  
Email <isw@student.khleuven.be>  
Web <http://isw.student.khleuven.be/>  
Extra Exclusive to KHLeuven students

## Leuven Linux Users (Leuven)

Email <info@l2u.iguana.be>  
Web <http://l2u.iguana.be/>  
Meetings First and third thursday every month in Freinetschool De Zevensprong [<http://l2u.iguana.be/where.php>], Vital Decosterstraat 67, B-3000 Leuven  
Mailinglist <http://l2u.iguana.be/mailman/listinfo/members>

## LiLiT (Liège)

Email <f.berger@student.ulg.ac.be>  
Web <http://www.lilit.be/>

## Linux for Life (Berchem)

Email <fvos@vosberg.be>  
Web <http://www.vosberg.be/lug/>  
Mailinglist <http://www.vosberg.be/lug/maillinglist.shtml>  
Contact Frederik Vos <fvos@vosberg.be>

## Louvain-Li-nux (Louvain-La-Neuve)

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>

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

Contact Benjamin Henrion <benjamin.henrion@linuxbe.org>

## LugWV (Brugge)

Email <info@lugwv.be>

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

## LUMUMBA (Diepenbeek)

Address

Filii Lamberti  
Universiteitslaan 1  
B-3590 Diepenbeek

Email <helpdesk@lumumba.luc.ac.be>

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

Mailinglist <minordomo@lumumba.luc.ac.be>

## Mons LUG (Mons)

Email <stephane.wirtel@belgacom.net>

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

## Namur LUG (Namur)

Email <info@namurlug.org>

Web <http://namurlug.org/>

## Open Technology Assembly (Brussels)

Address

Kruipstraat 14

B-1850 Grimbergen

Phone +32 (0)11 275 898  
Fax +32 (0)11 270 389  
Email <info@ota.be>  
Web <http://www.ota.be/>  
Contact Jan Vanhercke <jan.vanhercke@c-cure.be>

## OS3B (Charleroi)

Address 29, Boulevard Audent  
B-6000 Charleroi  
  
Email <info@os3b.org>  
Web <http://www.os3b.org/>  
Meetings Every thursday evening and saturday afternoon.  
Mailinglist <http://carolo.net/mailman/listinfo/os3b>

## Ouverture

Email <info@ouverture.be>  
Web <http://www.ouverture.be/>  
Mailinglist <http://www.linuxcompanies.be/archive/>

## PC Aktief Computerclub (Sint-Niklaas)

Address PC Aktief Computerclub  
  
Web <http://www.pcaktief.be/>  
Meetings Second tuesday every month in 'Ons Huis', Schoolstraat 270, B-9100 Sint-Niklaas  
Contact Johan De Baere <webmaster@pcaktief.be>

## Student Information Networking (Geel)

Address Kleinhoefstraat 4  
B-2440 Geel

Email <sin@sin.khk.be>

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

## TINA (Antwerp)

Contact Tina gebruikers <vraagtina@digibel.org>

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

Meetings Hof van Rieth, Molenlei 68, B-2640 Mortsel [<http://tina.kangaroot.net/meetings/meetings.html>]

Mailinglist <mailinglist@tina.kangaroot.net>

## ULYSSIS (Leuven)

Address  
Holleberg  
Schapenstraat 37, lokaal 91 97  
B-3000 Leuven

Mail-address  
Residentie Vinckenbosch  
Parkstraat 137-139, flat 305  
B-3000 Leuven

Email <ulyssis@ulyssis.org>

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

Extra Only for KULeuven students and KULeuven personnel

## WOLF (Mechelen)

Email <TeeCee@WOLF-Mechelen.be>

Web <http://www.wolf-mechelen.be/>

## Zeus WPI (Gent)

Address  
Krijgslaan 281 S9  
B-9000 Gent

Phone +32 (0)9 264 47 51

Email <info@zeus.rug.ac.be>

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

Comment Restricted to RUG students



# 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/>.

## 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/>

## Ampersant

Address  
Dr. Jacobsstraat 3  
B-2570 Duffel

Phone +32 (0)15 323 619

Fax +32 (0)15 323 790

Contact <[jeff.verheyen@ampersant.be](mailto:jeff.verheyen@ampersant.be)>

Web <http://www.ampersant.be/>

Type of support Installation, configuration, support, (onsite) maintenance, training, webdevelopment.

Special expertise 'Astaro Security Linux' partner. Distribution, installation and support for these Linux based firewalls.

## 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/>

## Aragne

Address	Boulevard Général Michel 1E B-6000 Charleroi
Phone	+32 (0)71 270 389
Email	<info@aragne.com>
Web	<a href="http://www.aragne.com/">http://www.aragne.com/</a>
Contact	Denis Frère <denis.frere@aragne.com>
Special expertise	GNU/Linux services, specially Python and Zope solutions (websites, intranet, Internet connectivity, ...)

## Better Access nv

Address	Geldenaakse Vest 6 B-3000 Leuven
Phone	+32 (0)16 298 045
Fax	+32 (0)16 298 046
Email	<info@ba.be>
Web	<a href="http://www.ba.be/">http://www.ba.be/</a>
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-developed 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 <a href="http://www.ba.be">http://www.ba.be</a> for more info.

## Consultux

Address	Alfons Jeurissenstraat 53 B-3500 Hasselt
Phone	+32 (0)474 91 55 61
Email	<info@consultux.be>
Web	<a href="http://www.consultux.be/">http://www.consultux.be/</a>

## CoreSequence Consultancy & Training

Address	Tiensestraat 243/3 B-3000 Leuven
Phone	+32 (0)472 689 497
Fax	+32 (0)16 29 99 32
Email	<info@coresequence.com>
Web	<a href="http://www.coresequence.com/">http://www.coresequence.com/</a>
Contact	Machtelt Garrels <sales@coresequence.com>
Special expertise	Consultancy: disaster recovery, troubleshooting. Training: Dutch/French/ English speaking trainers.

## CSS nv

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	Red Hat RHCE

## D. Connect

Address	Av. Van Goidtsnoven 33 B-1180 Uccle
Email	<webmaster@dconnect.be>
Web	<a href="http://www.dconnect.be/">http://www.dconnect.be/</a>

## Digibel

Address	Oude Leuvensebaan 57 B-3460 Bekkevoort
Phone	+32 (0)473 269 112

Fax	+32 (0)13 55 66 99
Email	<info@digibel.be>
Web	<a href="http://www.digibel.be/">http://www.digibel.be/</a>
Contact	Joan Lavrijs <joan@digibel.be>
Type of support	Digibel (since 1995) uses its competence in Open Source software to deliver solutions, consultancy, development, remote administration, training and support with a strong focus on security. All our consultants have been using Linux since 1995 and have extensive Open Source experience.
Special expertise	We maintain the qmail-sql patch in which qmail gets integrated with MySQL or PostgreSQL databases. Our unique key product is the SUS (Security Update Service) in which we intensively manage the security of servers. Closely related to SUS are our high quality VPN/Firewall/Router-solutions. We also deliver virtually all kind of company-servers (file-,web-,fax-,mail-,name-,print-,database-,... servers). We have acquired a special expertise with the Red Hat distributions.

## Dolmen

Address	Industriepark Zenneveld Vaucampslaan 42 B-1654 Huizingen
Phone	+32 (0)2 362 55 55
Fax	+32 (0)2 362 55 99
Email	<info@dolmen.be>
Web	<a href="http://www.dolmen.be/">http://www.dolmen.be/</a>

## DS Improve bvba

Address	European Erasmus Business & Innovation Center Joseph Wybranlaan 40 B-1070 Brussels
Phone	+32 (0)2 529 59 41
Fax	+32 (0)2 529 59 54
Email	<info@dsimprove.be>
Web	<a href="http://www.dsimprove.be/">http://www.dsimprove.be/</a>

## EMMO Service

Address	
---------	--

Jan Van Harcourtlaan 7  
B-3200 Aarschot

Phone +32 (0)16 565 708  
Fax +32 (0)16 569 963  
Email <info@emmo.be>  
Web <http://www.emmo.be/>

## **FKS bvba**

Address  
Luikersteenweg 65  
B-3500 Hasselt

Phone +32 (0)11 214 911  
Fax +32 (0)11 220 419  
Email <info@fks.be>  
Web <http://www.fks.be/>

## **Glasshouse Business Networks bvba**

Address  
Hessenstraatje 20 loft 1.1  
B-2000 Antwerp

Phone +32 (0)3 234 96 96  
Fax +32 (0)3 234 96 97  
Email <info@glasshouse.be>  
Web <http://www.glasshouse.be/>

## **Grmbi productions**

Address  
Korte Vuldersstraat 30  
B-8000 Brugge

Phone +32 (0)50 674 512  
Fax +32 (0)50 342 623  
Email <info@grmbi.com>  
Web <http://www.grmbi.com/>

## Hellea sprl

Address  
Rue de Prague 61  
B-1060 Brussels

Web      <http://www.hellea.be/>

## 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>

Web        <http://www.ibm.com/be/>

Contact    Sam Versluys <sam\_versluys@be.ibm.com>

## IP Net generation

Address  
Cyriel Verschaevelaan 12  
B-2980 Zoersel

Phone      +32 (0)477 513 987

Email      <info@ipng.be>

Web        <http://www.ipng.be/>

Special expertise      IPnG focuses on Open Source software development.

## Kangaroot Linux Solutions

Address  
Grote Steenweg 91  
B-2600 Berchem (Antwerp)

Phone      +32 (0)3 286 17 17

Fax        +32 (0)3 281 23 49

Email      <info@kangaroot.net>

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

Contact Peter Dens <peter@kangaroot.net>

## Linugen

Address  
Borkelstraat 2/4  
B-2900 Schoten

Phone +32 (0)3 685 39 81

Fax +32 (0)3 293 33 43

Email <hello@linugen.com>

Web <http://www.linugen.com/>

## LinuxIdee

Address  
Prins Albertstraat 35  
B-8310 Brugge

Phone +32 (0)494 607 037

Fax +32 (0)50 364 341

Web <http://www.linuxidee.com/>

Contact Jurgen Defurne <jurgen.defurne@pandora.be>

## Mind

Address  
Vaartkom 11  
B-3000 Leuven

Phone +32 (0)16 309 666

Fax +32 (0)16 309 644

Email <info@mind.be>

Web <http://mind.be/>

Contact Peter Vandenabeele <peter.vandenabeele@mind.be>

Type of support Device drivers, porting to new platforms, development (fixed price), set-up of development environment, on-site support (outsourcing), architecture study and training.

Special expertise Mind uses Open Source software (Linux, RTLinux, RTAI, eCos, Wonka, gcc, gdb, etc.) to set up basic infrastructure for new embedded systems based on various embedded processors: ARM, StrongARM, XScale, PowerPC, MIPS, x86, ...

## Minotaur Solutions

Address  
Astridlaan 199  
B-8310 Brugge

Phone +32 (0)475 311 650

Email <ldp@minotaur-solutions.com>

Web <http://www.minotaur-solutions.com/>

Contact Maarten Loose <maarten.loose@minotaur-solutions.com>

## Neolabs

Address  
Zwarte Zusterstraat 16  
B-3000 Leuven

Phone +32 (0)16 236 342

Fax +32 (0)16 650 497

Email <info@neolabs.be>

Web <http://www.neolabs.be/>

Contact Maarten Slaets <maarten.slaets@neolabs.be>

## OpenSides

Address  
Rue des Palais 44/33  
B-1030 Brussels

Email <info@opensides.be>

Phone +32 (0)2 211 34 83

Fax +32 (0)2 218 89 73

Web <http://www.opensides.be/>

## Phidani Software sprl

Address  
Rue de l'autonomie 1  
B-1070 Brussels

Email <info@phidani.be>



Phone +32 (0)2 552 06 63  
Fax +32 (0)2 522 09 30  
Web <http://www.phidani.be/>

## Qbian Linux Systems

Address  
Bischoppenhoflaan 289  
B-2100 Antwerp

Email <[info@qbian.com](mailto:info@qbian.com)>  
Phone +32 (0)9 328 93 28  
Fax +32 (0)9 326 08 88  
Web <http://www.qbian.com/>

## Si-Lab

Email <[toon@si-lab.com](mailto:toon@si-lab.com)>  
Phone +32 (0)486 149 048  
Web <http://www.si-lab.com/>  
Contact Toon Knapen <[toon@si-lab.com](mailto:toon@si-lab.com)>

## 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/>

## 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	<a href="http://www.be.stone-it.com/">http://www.be.stone-it.com/</a>
Contact	Martijn Smit < <a href="mailto:smit@stone-it.com">smit@stone-it.com</a> >
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.

## Supporting Open Source cvba

Address	Zijpstraat 14 B-2570 Duffel
Email	< <a href="mailto:info@sos.be">info@sos.be</a> >
Phone	+32 (0)15 310 271
Fax	+32 (0)15 310 381
Web	<a href="http://www.sos.be/">http://www.sos.be/</a>

## Sygmanet

Address	Hulststraat 8 B-3290 Diest
Email	< <a href="mailto:info@sygmanet.be">info@sygmanet.be</a> >
Phone	+32 (0)13 312 203
Fax	+32 (0)13 312 203
Web	<a href="http://www.sygmanet.be/">http://www.sygmanet.be/</a>

## Théridion sprlfs

Address	Rue de l'Aqueduc, 83 B-1050 Brussels
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Email	<info@theridion.com>
Phone	+32 (0)2 539 32 28
Fax	+32 (0)2 539 19 54
Web	<a href="http://www.theridion.com/">http://www.theridion.com/</a>
Contact	Renaud Dans <renaud.dans@theridion.com>

## UWYN

Address	Lambermontlaan 148 B-1030 Brussels
Email	<info@uwyn.com>
Phone	+32 (0)2 245 41 06
Web	<a href="http://www.uwyn.com/">http://www.uwyn.com/</a>

## 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>
Web	<a href="http://www.virgoplus.com/">http://www.virgoplus.com/</a>
Contact	Bruno Mairlot <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 development, firewalls, samba, netatalk, firewalls, proxys, DNS, web server (Apache), mod_perl, MySQL, Gui interface development (GTK+). We have acquired a special expertise with the Red Hat distributions.

## Belgian Linux resources

### Websites

#### Linux in Belgium

- Belgian HOWTO [<http://dag.wieers.com/howto/>]

- be.comp.os.linux FAQ [<http://users.pandora.be/wouter.verhelst/FAQ>]
- Belgian LUGS [<http://www.belgian-lugs.be/>]
- LinuxBelgium.net [<http://www.linuxbelgium.net/>]

## Dutch Linux-related sites

- Nederlandstalige Linux homepage [<http://nl.linux.org/>] \_the\_ Linux source for Flanders and the Netherlands
- Nederlandstalige Linux Documentatie Project [<http://nl.linux.org/doc/>] most Linux HOWTOs translated to Dutch
- Linux Support Website [<http://www.linux-nl.cx/>]
- EToS: Educatieve Toepassingen van Open Software [<http://www.mech.kuleuven.ac.be/%7Ebruyn-inc/etos/>]
- A Flemish website about Open Standards [<http://www.openstandaarden.be/>]
- Beginnen met Linux [[http://user.online.be/~koendb/linux\\_beginners.html](http://user.online.be/~koendb/linux_beginners.html)]
- Installatie Handleiding RedHat 5.2 [<http://user.online.be/~koendb/redhat.html>]
- Configure.help in het Nederlands [<http://users.pandora.be/wouter.verhelst/configure.html>]
- Cursus Linux voor Informaticabeheer [<http://inf-beheer.sourceforge.net/>]

## French Linux-related sites

- LinuxBe.Org [<http://linuxbe.org/>]
- Association Electronique LIBRE [<http://www.ael.be/>]
- Belgian HOWTO in french [<http://club.euronet.be/dany.vanderroost/howto.html>]
- linux-france.org [<http://www.linux-france.org/>]

## Mirrors in Belgium

- Freshmeat at UPC Belgium (Chello,TVD) [<http://be.eu.mirrors.freshmeat.net/>]
- Linuxberg at Wallonie Internet [<http://winbe.linuxberg.com/>]
- Linuxberg at Online [<http://online.linuxberg.com/>]
- Linuxberg at Pandora (Telenet) [<http://pandora.linuxberg.com/>]
- Linux Gazette at Belnet [[http://sunsite.belnet.be/alug/ftp\\_mirrors/linux\\_gazette/](http://sunsite.belnet.be/alug/ftp_mirrors/linux_gazette/)]
- Linux Gazette at Linuxbe [<http://linuxgazette.linuxbe.org>]
- LinuxFocus [<http://linuxfocus.linuxbe.org>]
- Linux France [<http://linux-france.linuxbe.org>]

## 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 K.U.Leuven [<http://www.kulnet.kuleuven.ac.be/LDP/>]
- HOWTO's at Double-Barrel [[http://www.double-barrel.be/linux\\_web/LDP/](http://www.double-barrel.be/linux_web/LDP/)]
- HOWTO's at SIN [<http://www.sin.khk.be/mirror/LDP/>]
- HOWTO's at Linuxbe.org [<http://ldp.linuxbe.org/>]

## 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.

### 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/>.

### French

French translations of HOWTO's can be found at: <http://www.ibiblio.org/pub/Linux/docs/HOWTO/translations/fr/>

### German

German translations of HOWTO's can be found at: <http://www.ibiblio.org/pub/Linux/docs/HOWTO/translations/de/>

## FTP

### Kernel-source mirrors

- Official Mirror kernel-sources at Belnet [<ftp://ftp1.be.kernel.org/pub/linux/kernel/>]
- Official Mirror kernel-sources at UPC Belgium (Chello,TVD) [<ftp://ftp2.be.kernel.org/pub/linux/kernel/>]
- Kernel-sources at Tiscalinet [<ftp://ftp.tiscalinet.be/pub/linux/kernel/>]

### Distribution mirrors

- Red Hat Mirrors [<http://www.redhat.com/download/mirror.html>]
- Official Mirror at Belnet [<ftp://ftp.belnet.be/mirror/ftp.redhat.com/>]
- Official Mirror at Easynet [<ftp://ftp.easynet.be/redhat/>]
- Mirror at Pandora (Telenet) [<ftp://mirrors.pandora.be/mirrors/ftp.redhat.com/>]

- Mirror at UPC Belgium (Chello,TVD) [<ftp://ftp.chello.be/mirror/ftp.redhat.com/>]
- Debian [<http://www.debian.org/misc/README.mirrors>]
  - Official Mirror at Belnet [<ftp://ftp.belnet.be/mirror/ftp.debian.org/>]
  - Official Mirror at KULeuven [<ftp://ftp.kulnet.kuleuven.ac.be/pub/mirror/ftp.debian.org/>]
  - Official Mirror at Pandora (Telenet) [<ftp://mirrors.pandora.be/mirrors/ftp.debian.org/>]
  - Official Mirror at Easynet [<ftp://ftp.easynet.be/debian/>]
  - Official Mirror at Tiscalinet [<ftp://ftp.tiscalinet.be/debian/>]
  - Mirror at Skynet [<ftp://ftp.skynet.be/mirror2/debian-ftp/>]
  - Mirror at spnet [<ftp://debian.spnet.net/>]
- Mandrake
  - Mirror at Belnet [<ftp://ftp.belnet.be/packages/mandrake/>]
  - Mirror at UPC Belgium (Chello,TVD) [<ftp://ftp.tvd.be/pub/mirror/ftp0.sunet.se/pub/Linux/distributions/mandrake/>]
- SuSE
  - Mirror at Belnet [<ftp://ftp.belnet.be/mirror/ftp.suse.com/>]
  - Mirror at Pandora (Telenet) [<ftp://mirrors.pandora.be/mirrors/ftp.suse.com/>]

## Mirrors in Belgium

- Mirrors at Belnet [<ftp://ftp.belnet.be/mirror/>]
- Mirrors at UPC Belgium (Chello,TVD) [<ftp://ftp.chello.be/mirror/>]
- Mirrors at Pandora (Telenet) [<ftp://mirrors.pandora.be/mirrors/>]

## Usenet/Newsgroups

- be.comp.os.linux [news:be.comp.os.linux] at Google [<http://groups.google.com/groups?hl=en&lr=&safe=off&group=be.comp.os.linux>]

## 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.