Install Freenet/Hyphanet on a GNU/Linux server

Jump over censorship. When Free Speech dies, we need a place to organize.

Hyphanet is a peer-to-peer platform for censorship-resistant communication and publishing. But over the years many people asked how to install Freenet from the commandline, for example for a headless server.

Contents

General approach

To install Freenet/Hyphanet:

- Install openjdk
- Get the Installer from https://github.com/freenet/fred/releases/download/build01503/new_instal
- Run the installer with `java -jar new_installer_offline_1503.jar -console`

Then follow the prompts.

Finally open http://127.0.0.1:8888 and follow the *wizard*.

If you should run into problems after running the installer, please try to run

```
./run.sh console
```

This shows the logs. You can stop it with `CTRL-C`. After fixing whatever caused problems, switch to `./run.sh start` so it runs in the background.

Example on GNU Guix

```
guix install openjdk
wget 'https://github.com/freenet/fred/releases/download/build01503/new_↵
↪  installer_offline_1503.jar'
```

```
java -jar new_installer_offline_1503.jar -console
# you may need to run ./run.sh start afterwards, check wrapper.log if it
↳   fails
```

Running the example:

```
LANG=C wget 'https://github.com/freenet/fred/releases/download/build015┐
↳   03/new_installer_offline_1503.jar'
```

```
...
new_installer_offline_1503.jar
100%[=============================================================================>

2020-10-20 09:35:26 (1.59 MB/s) - 'new_installer_offline_1503.jar' saved [19801684/19
```

```
java -jar new_installer_offline_1503.jar -console
```

```
Select target path [/tmp]
/tmp/Freenet
press 1 to continue, 2 to quit, 3 to redisplay
1
[ Starting to unpack ]
[ Processing package: Base (1/3) ]
[ Processing package: License (2/3) ]
[ Processing package: Unix (3/3) ]
[ Unpacking finished ]
[ Starting processing ]
Starting process Setting up the environment (1/16)
Offline installation mode
File './wrapper.jar' already exists.
Starting process Setting the Updater up (2/16)
Starting process Setting Opennet up (3/16)
Starting process Setting JSTUN up (4/16)
Downloading the STUN plugin
Starting process Setting UPnP up (5/16)
Downloading the UP&P plugin
Starting process Setting Librarian up (6/16)
Downloading the Library plugin
Starting process Setting KeyUtils up (7/16)
Downloading the KeyUtils plugin
Starting process Setting ThawIndexBrowser up (8/16)
Downloading the ThawIndexBrowser plugin
Starting process Setting plugins up (9/16)
```

```
Starting process Downloading freenet-stable-latest (10/16)
Starting process Downloading freenet-ext (11/16)
Starting process Downloading bcprov (12/16)
Starting process Detecting port availability (13/16)
Detecting tcp-ports availability...
...
Starting process Setting up auto-start (14/16)
Enabling auto-start.
Installing cron job to start Freenet on reboot...
mcron: autostart.install:1: Bad job line in Vixie file.
Starting process Starting the node up (15/16)
Starting Freenet 0.7...
Starting process Cleaning up (16/16)
All done, please click Next
[ Console installation done ]
```

note that mcron failed, on Guix you currently have to start Freenet manually.

Now open the freenet web interface:

```
lynx 127.0.0.1:8888
```

Set Up Freenet

    Connect to any Freenet user: (low security) Connect only to
    friends: (high security) Detailed settings: (custom)

    If you live in a relatively free country where running Freenet is
    legal, you can choose this option. It is much safer than
    traditional P2P software like BitTorrent or Gnutella, but an
    attacker with moderate resources may be able to trace your activity
    on Freenet back to you. If you have friends who also run Freenet,
    you can improve security by adding them as Friends, then connecting
    only to them.
    Choose low security

    If you know several people you want to connect to, this setting
    allows you to create your own Freenet darknet for vastly improved
    security. If you only have a few people it may not be very useful,
    but if some of them know others, or have low security set, you can
    have a very large network.
    Choose high security

    If you want more fine-grained control, this option lets you set up

```
    Freenet according to your own privacy needs. It will take a bit
    longer than the other two options.
    Choose custom security
    [English_____] Submit
```

Choose **low security**.

For the next two dialogs, just click next.

```
Browser Security Advisory

    You are using a browser with incognito mode for Freenet (this is good)
    You seem to be using a browser in privacy/incognito mode (check in
    the title bar). This should be relatively safe, but do not use the
    same browser for the web and Freenet, unless it is in privacy mode.

    Most web browsers, apart from Microsoft Internet Explorer, will
    work adequately with Freenet, for example Firefox, Opera, Safari,
    Chrome, and Lynx are known to work.

    If you are using a thirdparty IME (Input Method Editor, used as
    text input for common asian languages), please disable it for
    Freenet and use an IME from your Operating System. There have been
    reports of the IME collecting your keystrokes and sending them to
    remote servers.

    Back Next
Datastore Size

    Datastore size
    Please select a size for your datastore. Recommended values lie
    between 1GiB and 20GiB. A smaller datastore can result in problems
    downloading files, a larger datastore is beneficial to the network
    but might slow down your computer due to high filesystem load,
    especially in the first few hours after installation. The datastore
    acts like a cache; storing data for the network will help you to
    get better throughput when requesting popular files. The more space
    you can afford the better it is for the community and the faster
    your node and especially your downloads will go.
    [10.0 GiB]
    Back Next
Bandwidth Limits
```

```
   Bandwidth Limits
   Does your internet connection have a monthly data limit?
   Yes No
   Back
```

I have **No monthly limits**.

```
Bandwidth Limits

   Transfer Rate Limit
   How fast is your Internet connection? Freenet should use no more
   than half of it. You can change this setting later on the Core
   settings page. Note that 1 megabit per second (1 Mbps) = 125
   kilobytes per second (125 KB/s).
               Connection type                Download limit        Upload limit       Se
   4 megabits                                 256 KiB/s (= 2Mbps)   16.0 KiB/s         (
   6 megabits (average ADSL1)                 384 KiB/s (= 3Mbps)   16.0 KiB/s         (
   8 megabits (fast ADSL1)                    512 KiB/s (= 4Mbps)   32.0 KiB/s         (
   12 megabits (slow ADSL2)                   768 KiB/s (= 6Mbps)   64.0 KiB/s         (*
   20 megabits (fast ADSL2, fast cable) 1.25 MiB/s (= 10Mbps) 64.0 KiB/s         (
   VDSL (20/5)                                1.25 MiB/s (= 10Mbps) 320 KiB/s          (
   100 megabits (fibre)                       2.0 MiB/s (= 16Mbps)  2.0 MiB/s          (
   Enter a custom bandwidth limit             _____   _____
   Back Next
```

⇒ Freenet is setup and running.

Now open 127.0.0.1:8888 in any webbrowser to use Freenet. To increase security, you can setup Freenet as a proxy in your webbrowser, using a nonstandard IP and Port.

Distributions

Debian

```
sudo apt-get install default-jre wget lynx
wget 'https://github.com/freenet/fred/releases/download/build01503/new_↵
↪  installer_offline_1503.jar'
java -jar new_installer_offline_1503.jar -console
# follow the prompts
lynx 127.0.0.1:8888
# follow the wizard
```

Gentoo

```
sudo emerge freenet lynx
sudo rc-update add freenet default
sudo rc-config start freenet
lynx 127.0.0.1:8888
# follow the wizard
```

Arch

Install from AUR package freenet:

```
pacman -S --needed git base-devel wget lynx
git clone https://aur.archlinux.org/freenet.git
cd freenet
curl -sS https://freenetproject.org/assets/keyring.gpg | gpg --import -
makepkg -si
lynx 127.0.0.1:8888
# follow the wizard
```

CentOS

```
sudo yum install java-11-openjdk wget lynx
wget 'https://github.com/freenet/fred/releases/download/build01503/new_↲
↪  installer_offline_1503.jar'
java -jar new_installer_offline_1503.jar -console
# follow the prompts
lynx 127.0.0.1:8888
# follow the wizard
```

SUSE

```
sudo zypper install java-11-openjdk wget lynx
wget 'https://github.com/freenet/fred/releases/download/build01503/new_↲
↪  installer_offline_1503.jar'
java -jar new_installer_offline_1503.jar -console
# follow the prompts
lynx 127.0.0.1:8888
# follow the wizard
```

Guix

```
guix install openjdk wget lynx
wget 'https://github.com/freenet/fred/releases/download/build01503/new_↵
↪  installer_offline_1503.jar'
java -jar new_installer_offline_1503.jar -console
# follow the prompts
lynx 127.0.0.1:8888
# follow the wizard
```

OpenBSD and similar

On some systems (including OpenBSD), you can install Freenet as above, but starting it with the wrapper (`./run.sh start`) does not work. You can run Freenet manually there, but you then don't have auto-updates. Get the relevant classpath arguments in wrapper.conf (after install). Then call java directly with a command like

```
java -classpath \
  wrapper.jar:bcprov-jdk15on-1.59.jar:freenet-ext.jar:jna-4.2.2.jar:jna↵
  ↪ -platform-4.2.2.jar:freenet-stable-latest.jar \
  -Dnetworkaddress.cache.ttl=0 -Dnetworkaddress.cache.negative.ttl=0
  ↪  -Djava.net.preferIPv4Stack=true \
  -Djava.io.tmpdir=./tmp/ -Xss512k \
  freenet.node.NodeStarter
```