

Provide your own video channel via Freenet / Hyphanet

Youtube now [wants to block users of ad-blockers](#), so if you value your visitors' time (who might be financing you via patronage), you need a sovereign platform — one that is immune to [enshittification](#). Here I'll show how to provide a video channel via [Freenet / Hyphanet](#).

Freenet / Hyphanet is a decentralized network that preserves your and your visitor's privacy. You can upload websites that stay online without needing your own server, and you can use those to serve videos.

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1 Limitations

- **Linux:** This tutorial is written for **GNU Linux** users. It was tested locally and in a Debian docker image. If you use Windows, you might be able to use it via WSL2.
- **One at a time:** Your channel will get created **one video at a time**, perfect for updating it as you record the videos, but no good match for uploading a full series

at once. The maximum number of videos available in the channel is **24**. You can change this, but it's an optimization, so your site could become slower as a result.

- **No archive:** Hyphanet provides communication: your channel will stay working as long as people access it. It is not meant for long-term storage.
- **Slower:** Hyphanet **isn't fast**. Its codecs are old. Your videos won't be HD. But they will appear and you will have full **sovereignty** over your channel.
- **Local node:** Watching your channel will need either a **locally running** Hyphanet node or an **inproxy** like [SCGIPublisher](#). This makes it only viable for dedicated viewers for now, but it is a great fallback if your channel should drop off your current video hosting provider for some reason — or if the enshittification of the hosting provider becomes unbearable for your visitors. To have it as contingency plan later, it is essential to get some people to try it soon (now?), so they know where to find your channel if you need it.

2 Requirements

You need a running Freenet / Hyphanet node. The easiest way is to use the [freenet-browser](#).¹ To get it on Debian:

```
sudo apt-get install git python3 python3-pip pipx guile-3.0 mplayer ffmpeg \  
  curl wget make autoconf automake grep sed gnupg openjdk-17-jdk firefox-esr \  
git clone https://github.com/hyphanet/browser \  
(cd browser && ./bootstrap.sh --prefix=$HOME/.local && make install)
```

To see whether it worked, watch [Sintel](#) on Generate Media Site:

```
~/local/bin/freenetbrowser --install \  
  USK@rQnuHCVpf7BHcsZHBt911K3-iaELN1u1Vg0fzxDRq7k,I1vFYW0NhGfECHR9XD-11Kxxstr64rF4dT \  
# --install: install Hyphanet if needed
```

You should see something like this:

¹[freenetbrowser](#) creates and uses a highly secured browser profile for firefox or derived browsers like icecat.

Sintel movie

< ...FYWONhGfEChR9XD-1IKxxstr64rF4dTykcMq9swY,AQACAAE/gms/28/Sintel-movie-003.ogv >



Sintel is Free Culture and licensed under the [Creative Commons Attribution 3.0](#) license.

You need to run `freenetbrowser --install` at least once to be set up for the next step.

If `~/local/bin/freenetbrowser` does not work, please [report the error!](#)

3 Prepare your channel

First prepare the structure by cloning generate-media-site:

```
git clone https://github.com/hyphanet/generate-media-site YOUR_CHANNEL_NAME
```

This gives you the subfolders `entries`, `media`, and `site`:

```
YOUR_CHANNEL_NAME/  
  entries/  
  media/  
  site/
```

The `site` subfolder contains support scripts and templates.

`YOUR_CHANNEL_NAME` should contain **no spaces** (it will be part of the link).

To prepare your channel, just **put the videos you want to share into the media/ folder**. For example:

```
cd /path/to/YOUR_CHANNEL_NAME/media && \  
  wget https://www.draketo.de/kreatives/ciao-chatcontrol-draft1-2023-08-16.mp4 && \  
  echo "A song against Chatcontrol from https://www.draketo.de/kreatives/liederbuch"  
  > ciao-chatcontrol-draft1-2023-08-16.mp4.info
```

4 Create your streaming site

Assuming that you installed `freenetbrowser` and ran `freenetbrowser --install` (as shown above) you can setup your streaming site by installing and using the `pyFreenet3` utilities:

```
pip3 install --user pyFreenet3 || pip install --user pyFreenet3  
cd /path/to/YOUR_CHANNEL_NAME/site && ./gms.scm --rebuild-only  
# create your site  
# use YOUR_CHANNEL_NAME as name  
# use the absolute path as path (i.e. /path/to/YOUR_CHANNEL_NAME/site)  
# just leave the Site private URI empty  
~/local/bin/freesitemgr add  
# get your site public key (the website address to give others)  
~/local/bin/freesitemgr list YOUR_CHANNEL_NAME
```

Be sure to include `/site` in the path of the site. That's where the optimized files are created for every upload.

On Debian testing running in a container, pip may need the flag `--break-system-packages` to realize that `-user` is safe.

This will show something like

```
YOUR_CHANNEL_NAME:  
  state: updating  
  dir: /path/to/YOUR_CHANNEL_NAME/site  
  uri: USK@SOME,KEY,AQACAAE/YOUR_CHANNEL_NAME/0/  
  privkey: USK@OTHER,KEY,AQECAA/E/YOUR_CHANNEL_NAME/0
```

`uri` is what you can give to others so they can test your site. `state: updating` means that your site is currently being uploaded.

Never share the `privkey`. It is what is used to update your site.

Aside: This is the perfect time to backup the folder `~/.freesitemgr`. It contains these keys and additional metadata. As long as you have it, you can update your site from anywhere.

You can check the upload of your site by opening the uploads list:

```
~/local/bin/freenetbrowser freenet.local/uploads
```

Once the upload is finished, you can see your site via

```
freenetbrowser USK@SOME,KEY,AQACAAE/YOUR_CHANNEL_NAME/0/
```

5 Make it your style

The default style is a simple video channel. To tweak it, just adapt the files `template.html`, `video.html`, and `style.css`.

Most importantly, change `<a href="/?newbookmark=USK...` to point to the uri of your site (the one you got via `~/local/bin/freesitemgr list YOUR_CHANNEL_NAME`).

To see a rough preview, just open `template.html` in the browser.

If you want to show a **description** below a video, just add a file next to your video with the same name but the extension `.info`.

Example: if you want to share the video `welcome-to-my-channel.mp4` with some description text below it, your `media/` folder would contain:

```
welcome-to-my-channel.mp4
welcome-to-my-channel.mp4.info
```

You can write arbitrary HTML in the `.info` file.

6 Prepare and insert a video

After setting everything up as above, with the videos in the folder `/path/to/YOUR_CHANNEL_NAME/media` preparing and inserting the first of your videos just takes three shell commands:

```
cd /path/to/YOUR_CHANNEL_NAME/site && \
./gms.scm --sorted && \
~/local/bin/freesitemgr update YOUR_CHANNEL_NAME
```

Again you can check the upload status with

```
~/local/bin/freenetbrowser freenet.local/uploads
```

This can take an hour to spread your site through the Hyphanet. After the upload is finished, you can share your new video channel via the uri:

```
~/local/bin/freesitemgr list YOUR_CHANNEL_NAME | grep "uri: "
```

People can then watch your video via

```
~/local/bin/freenetbrowser USK@SOME,KEY,AQACAAE/YOUR_CHANNEL_NAME/0/
```

(replace USK@SOME,KEY,AQACAAE/YOUR_CHANNEL_NAME/0/ with the uri of your site)

7 Advanced options

Generate Media Site was originally written to create radio-like channels. To see all options, read the README and/or run

```
cd /path/to/YOUR_CHANNEL_NAME/site && \  
./gms.scm --help
```

To keep your videos accessible when no one is watching them for a few weeks, you may want to look into the keeplive plugin (in Hyphanet → config → plugins) and add there the CHK-links you find in `~/freesitemgr/YOUR_SITE_NAME`.

8 Summary

If you follow this guide, Hyphanet provides you a completely decentralized, sovereign video channel that stays online as long as people watch your videos, even if your computer goes offline.

This makes it the perfect contingency plan if your current video hosting provider goes down or starts on the path to [enshittification](#).

And while this article seems long, after you followed it once, creating one more channel is simple and quick:

```
git clone https://github.com/hyphanet/generate-media-site YOUR_CHANNEL_NAME  
cd YOUR_CHANNEL_NAME/site && ./gms.scm --rebuild-only  
freesitemgr add
```