



FFDN

Half a Decade of Federating DIY ISPs

Legend  
ger E.I.

OpenStreetMap contributors

# Federation of Internet Service Providers

- Do-It-Yourself
- non-commercial
- volunteer-driven
- net-neutrality proponents
- human-sized





In Belgium and across France  
[ <http://db.ffdn.org> ]

Legend

Orange square  
Blue square

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2011: 7 orgs, around 450 members

2016: 30 orgs, around 2100 members,  
of which 50 to 60 are very active

FDN itself was started 25 years ago

Our goals

Our goals

Offer alternatives to large ISPs

Connect dark zones

- each member org has its reasons
- radio links between villages

# Our goals

## De-centralize ISPs

## Enable, promote self-hosting



- Vary POPs
- Respect Net neutrality,
- Public IPv4 and IPv6

# Our goals

## Protect our citizen rights

→ fight dangerous laws

# Working Groups

# WG - Telecom Regulation

BEREC (EU)

IPBT (BE)

ARCEP (FR)

Provide them with feedback

And (sometimes) complain

WG - Teaching

Share knowledge

From sys admin to finance



# WG - Legal

Really understand the laws

Protect people, not business

☹ Data retention,  
interceptions,  
administrative blocking

# WG - Éxégètes

Part from FFDN, part from LQDN  
tech geeks ↵      law geeks ↵

## Question the law

## Often in light of the Constitution

The **real** how

Working together

Sharing and caring

Our relation to free software

# The usual reasons to use it

- No vendor lock-in

- No stupid licensing schemes

- No vendor-specific hardware

Lets us run on commodity hardware





Lets us run on commodity hardware



Software we use

Remember we're a federation

Each ISP chooses its tools

Subscriber connectivity

xDSL: l2tpns, mpd5

VPN: OpenVPN, tinc, strongswan, openl2tp

Auth: freeradius

DNS: BIND, Knot, unbound, NSD, dnsmasq

Routing: Quagga, Bird

Monitoring: check\_mk, nagios,  
munin, collectd, observium

Code: gitlab, gogs

Bugs, support: redmine

Accounting: hledger, dolibarr

Hosting and routing: Debian, FreeBSD

Platform hosting: Ganeti, Openstack,  
Ceph, DRBD, Xen, KVM

Radio: OpenWRT  
(well, and ubiquity)



# Services

File sharing: Nextcloud, Owncloud

E-mail: Postfix, dovecot, rspamd

Mailing-lists: Sympa, Mailman

Collaboration: Etherpad-lite, ikiwiki

Web: you name it (**except** ASP.NET)

The list keeps getting longer

Missing a service?

Use your ISP's infra and set it up.

Tools created or adopted

cavote: simple online voting system

coin: manage members, subscriptions

ffdn-db: map of DIY ISPs

(the map shown at the beginning)

Tools created or adopted

celutz: online panorama visualization

wifi-with-me: collaborative map for radio setup

l2tpns: an absolute requirement for xDSL  
*adopted*

[Home](#)[Explore](#)[Help](#)[Register](#)[Sign In](#)

## Explore

[24 Repositories](#)[Users](#)[Organizations](#)

### FFDN / coin

★ 3 🍷 4

Système d'information du FAI Illyse

Updated 16 hours ago

# code.ffdn.org

Puppet master repository of LDN

Updated 3 days ago

### gitoyen / peering

★ 0 🍷 0

Gitover peering management

Updated 4 days ago

# More infos on ffdn.org

### sileht / wifi-with-me 24

★ 0 🍷 0

Formulaire & carte pour recenser les aspirant-e-s connecté-e-s à un réseau radio.

Updated 1 week ago

### adrien / sane-lex

★ 0 🍷 0

Brings some sanity to law websites.



Come contribute

Your ISP is the best spot to...

Insert ads

Censor

Help surveillance

Hijack your traffic

Do you trust your ISP that much?

We (rightly) don't so we make ours.

Notice similarities with Free Software?

Free Software could only grew that much thanks to the Internet  
... and the other way round is true too

We would never trust a combination of proprietary routers, nameservers, tools, ...



## Présentation générale

# carte

# problématiques

# solutions

## exécuteurs

## partage d'infos, de configs, softs libres ; plus d'infos sur [ffdn.org](http://ffdn.org) / IRC

logiciel libre

# coûts nettement plus faibles

# tous les avantages connus du logiciel libre : pas de lock-in, de licenses à la con et qui tourne sur c

## xDSL: l2tpns, mpd5

## VPN: OpenVPN, tinc, openl2tp, strongswan

## Auth: freeradius

## DNS: BIND, Knot, unbound, NSD, dnsmasq

## Routing: Quagga, Bird

## Monitoring: check\_mk, nagios, munin, collectd, observium

## Code: gitlab, gogs, redmine

## Accounting: hledger, dolibarr

## Hosting/Routing: Debian/FreeBSD

### Overlap between our members and debian devs

## Radio: OpenWRT

## Hosting: Ganeti, Openstack, Ceph, DRBD, Xen, KVM

## Services

### Filesharing/sync: {Next,Own}cloud

### E-mail: postfix, dovecot, rspamd

### mailing-lists: sympa, mailman

### Collaboration: etherpad-lite (a lot), ikiwiki

## tons of others

## Tools made or maintained

### cavote: simple online voting system

### celutz: online panorama visualization