Nos Oignons

Operating large tor relays in France



Whoami

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I'm part of Nos Oignons

Menu

- 1. What is Tor
- 2. Social side of Nos oignons
- 3. Technical side of Nos oignons
- 4. And now what

What is Tor?

 ${\it \it I}$ baby don't track me, no more ${\it \it I}$



- If you know what Tor is
- If you know how it works
- If you're using it
- If you're running relays
- If you know the difference between tor, Tor, TOR, Thor, Torre, and Torr

https://nos-oignons.net

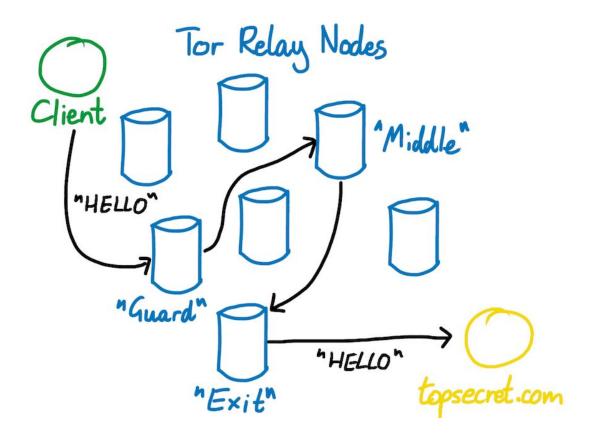
Tor?

- ~1990 Onion routing
- 1995 Goldschlag, Reed, and Syverson at the NRL
- ~2000 Dingledine, Syverson and Mathewson: The Onion Routing
- 2002 Initial public deployment, open-sauce
- 2006 The Tor Project, Inc. 501(c)3 nonprofit

Tor?

- 2007 Bridges
- 2008 Tor Browser
- 2010 torservers.net, with a handy howto
- ~2012 Nos oignons
- 2013 A now famous tor user used tor to reveal that tor is working great[™]

Tor?



Tor — numbers

- 2.000.000 daily users
- 6500 relays in total
- 3000 guards
- 1000 exit relays
- Less than 50 operators are running 50% for the network
- Half of the exit nodes are in US + DE

We need more big and diverse relays!

Source: metrics.torproject.org

Social side of Nos Oignons



Legalities

- French non-profit association (*loi 1901*)
- Legally born in 2013
- No president, no VP, no treasurer, ... only an administration council
- Goal: running diverse high-speed tor exit nodes in France

Is it legal?

- Article 12 of the european directive 2000/31/CE of 8 June 2000
- Transposed in the french law by the <u>article L32-3-3 of the</u>
 Code des Postes et Communications Électroniques.

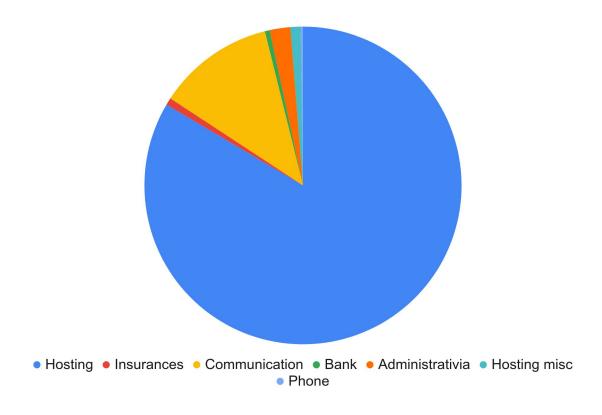
Internal organisation

- Ethics Committee
 - Checking that we're not doing stupid things
- Administration council
 - Taking decisions, handling the money, bureaucracy wrangler
- Sysadmin team
 - Taking care of computers
- Abuse handling
 - Replying to abuses
- Members
 - People who paid their cotisation
- Volunteers
 - Anyone who gives us a hand

Where is the money coming from?

- Donations
 - You and me
 - o Associations, foundations, companies, ...
- Memberships
- Donation campaigns
 - o By the way, handling goodies is a lot of non-fun
- Friendly hosters
- Stands at conferences/events

Where is the money going?



Money?

- We need around 13.000 EUR per year
- Paypal/Wiring/Cash/Check/HelloAsso/Paymium/...
- Dealing with BTC is terrible, but it's worth it
- SMS MFA with a team of phone-less people is hard

Dealing with people in uniforms

- We've got a <u>lawyer</u>
- We reply to <u>all</u> abuses
- Exonerator is useful
- Things are usually going smoothly
- It's important to *support* each other

Technical side of Nos Oignons



Where are our relays?

- Small and friendly hosters:
 - o <u>IELO-LIAZO</u> (x2)
 - Gandi
 - <u>Tetaneutral</u> (x2)
 - Globenet
 - Aquilenet
 - o (Grenode)

Running and monitoring relays

- ferm for firewall, because iptables is dreadful
- Configuration management via <u>etckeeper</u>
- <u>Unattended-upgrades</u> for updates
- Monitoring via monit
- Versioning with <u>ait</u>
- We like <u>Debian</u>

Documentation and communication

- Private wiki: https://nos-oignons.net/
- Tracking via <u>Request Tracker</u> (sysadmin and abuses)
- Public wiki: https://nos-oignons.net/wiki-admin
- All our web stuff are powered by <u>ikiwiki</u>
- Secret material handling via <u>keyringer</u>
- Encrypted mailing lists via <u>schleuder</u>
- Public meetings and idling via <u>IRC</u>
- Makefile and <u>pandoc</u> for reports
- Accounting via <u>ledger</u>

And now what?



6 years later

- Nos oignons is still alive
- We're not in jail \o/
- We're handling 2% of the tor network exit traffic
- 600 Mbit/s in, 600 Mbit/s out
- We're still slowly growing (~one new relay/year)
- We still need (your) money to stay afloat :p

https://nos-oignons.net

