Nos Oignons
Operating large tor relays in France

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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?

♫ baby don't track me, no more ♪
Put your hands in the air ♪

- 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 — torserver.net, with a handy howto
- ~2012 — Nos oignons
- 2013 — A now famous tor user used tor to reveal that tor is working great™
Tor?

Image from https://robertheaton.com/2019/04/06/how-does-tor-work/
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 article L32-3-3 of the 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
  - Associations, foundations, companies, …

- **Memberships**

- **Donation campaigns**
  - By the way, handling goodies is a lot of non-fun

- **Friendly hosts**

- **Stands at conferences/events**
Where is the money going?

Fiscal year 2018
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 lawyer
- We reply to all 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 hosts:
  - IELO-LIAZO (x2)
  - Gandi
  - Tetaneutral (x2)
  - Globenet
  - Aquilenet
  - Grenode
Running and monitoring relays

- **ferm** for firewall, because iptables is dreadful
- Configuration management via **etckeeper**
- **Unattended-upgrades** for updates
- Monitoring via **monit**
- Versioning with **git**
- We like **Debian**
Documentation and communication

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