

exo.cat contributions in hack4glarus 2019

Roger Garcia and Pedro

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who we are

- ▶ exo.cat members (not for profit ISP) that is part of the community network (guifi.net)
 - ▶ mostly runned by volunteers, *sometimes* we get paid
- ▶ in guifi.net we are a community with users, volunteers and professionals, with similar interactions to open source and free software projects but in the field of telecommunications and deploying networks (forks are more expensive)
- ▶ you might know other community networks like: freifunk.net (germany), funkfeuer.at (austria), ffdn.org (france), ninux (italy). Some of us participate in battlemesh.org (international meeting for community networks). Do you have something like this in Switzerland? :)

internet access (ISP perspective)

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accelppp is a tunnel provider for PPPoE and L2TP.

We install it from sources ([https:](https://gitlab.com/guifi-exo/wiki/blob/master/howto/l2tp-server/accel-ppp.md)

[//gitlab.com/guifi-exo/wiki/blob/
master/howto/l2tp-server/accel-ppp.md](https://gitlab.com/guifi-exo/wiki/blob/master/howto/l2tp-server/accel-ppp.md))

- ▶ connect it with prometheus and the snmp exporter
- ▶ upgrade from 1.11 to 1.12, from debian stretch to buster
- ▶ TODO: include the documentation (maybe [howto/prometheus.md](#))

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ipv6 issues in our
org

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helpdesk tool for users reporting that internet is working (at the moment we use humans to replace prometheus)

we install from debian package documented here

`https://gitlab.com/guifi-exo/wiki/blob/master/howto/request-tracker.md`

tested and added to documentation:

- ▶ migrate from MySQL to PostgreSQL
- ▶ upgrade from debian stretch to buster

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ipv6 issues in our org

- ▶ ipv6 communication problems between ungleich.ch and guifi.net
 - ▶ solution: our wholesaler provider (fundacio.guifi.net) applied a static route to select a specific carrier that does the good job
- ▶ TODO / open issue: we detected a loop in our routing of IPv6
 - ▶ we did a blackhole
 - ▶ TODO we should emit an *unreachable network* (we use vyos.io)
 - ▶ maybe we require to have *full table* (participate directly on the internet)
- ▶ better announcing the IPv6 network in ripe database

thanks nico (ungleich.ch) for helping us with guidance in ipv6

cdist orchestrator looks great for us, unfortunately we could not spend time on it

- ▶ lines of code (remembers me to the situation of OpenVPN vs wireguard.io)
 - ▶ we use ansible ansible (1 million lines of code in python)
 - ▶ but cdist has 30k lines of code: 12k shell, 9k rst, 8k python
- ▶ we have nearly 200 openwrt-based mesh devices <http://dsg.ac.upc.edu/qmpmon> that should be orchestrated (firmware flashing, configuration changes, file changes)

thanks nico (ungleich.ch) for the crash course in cdist

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