Talks and community meetings held during
WBMv15@Calafou
version 2024-05-17

Abstract
Community notes from talks held in a markdown pad during Battlemesh v15
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1 Notes after the Calafou
https://nuvol.exo.cat/index.php/s/DgbMawt3sbEotDZ

1.1 concepts for diversity and welcoming event
- action: creating a childcare team for easing the participation of parents
- action: provide free tampons and similar menstrual products in the toilets
- values: do not criticize, propose and help

2 2023-5-13 Saturday

2.1 Testbed Results
coordinated by Bastian and Thijs see recorded talk on https://media.exo.cat/a/battlemesh

2.2 Community Meetup
Starting 18:15 - almost perfectly on time lol

2.2.1 Feedback Round from participants
- Music is appreciated
- Mic would be nice for announcements
- a bit chaotic, unified talk schedule view would be nice
- welcoming for a first-timer, pretty well organized
- nice people, mornings were free, time to rest - ø/
- a lot of engagement in diversity workshops
- I have been in a battlemesh 10 years a lot. I see more diversity than ever (less uniform), less technical and more social
- I have the same feeling. We had free space to include other presentations. It is very calm.
- The smallest I was in. Family feeling. I appreciate that we can get distracted.
- Why less people?
  - Covid is one of the main reasons
  - Previous battlemesh was in less than a year (September 2022)
  - Remote place
- This is very much what I have dreamed on. Community that focus on the social aspect. I think it is important to have it in an area where this technology can be impactful, and where the community cares about. I highly appreciate that everything was in the same place (instead of hotels and restaurants). It is important having time
- I also agree with what was said, everyone was very open to discuss, to exchange ideas; everybody could propose something. Being here with other people that lives here (with the exchange we have with them). The calafou touring, and learning how
• I would prefer a better accommodation. Directly from the sleeping area to the hacking area. That we could stay all the time we wanted, with no deadlines. For the talks it will be nice planning more talks in the beginning of the event and hold some slots for.
• I appreciate the wiki effort, communal notes and streaming. Then we focus on meeting people, communal publishing together
• Schedule, recommends pretalx\(^1\)
• Offline physical schedule was a success
• Ask for ‘Streaming Recording YES/NO’ in the talk proposal form
• Remote question: What about the communication: is the mailing list dead? What means are more effective?
• A kind of pretalx is kind of stupid for a unconference, or maybe not. It’s a difficult question. Formal vs informal conference (spontaneous talks)
• Unconference are more important, make people feel they are there and you have decision and it matters what you do. Openness, less formal
• (about pretalx) the tool is totally orthogonal to the kind of event you organize
• Going offtopic, when I travel I tend to visit hackerspaces and there are plenty of places to look at,
• I found many of the “community profiles” in libremesh, provide a quite good hint on where the communities are. “Last update on their profile is 6 years ago” then are probably dead
• I think we could create such a site. How many nodes, how many people, it would be very nice to add to the wiki
• That could be a project for the next battlemesh
• People with social science background want to help (Rory Solomon\(^2\))

2.2.2 Feedback round from orgateam

• We liked to change environment. The downside is: Double or triple of load. This place is remote, means that the accommodation package, we don’t need to chase, we don’t need to worry everybody, time is up, you deal with your accommodation. Same for the food. That increased the workload. That was not expected, and that pushed us load.
• We need to find ways to ease the orga process
• Problem with v15 email
• It was a failure to use the registration via email and people not responding to it and so on this page\(^3\)

2.2.3 v16 2024 Location Options

• Nicosia, CY (Contact: Arinc)
  • Recon Mission End of 2023 seems appropriate
  • Mathias Judd has some experience and links in Nicosia!

\(^1\)https://pretalx.com
\(^2\)https://twitter.com/rorys
\(^3\)https://battlemesh.org/BattleMeshV15#How_to_register
Daniel knows people from University

- Sundhausen, DE (Contact: Bluse)
  - “really great location”
  - there it’s a community network that includes optical fiber deployed
  - max 50 Pax?
  - it is remote, Next train station: Bad Langensalza

- Amsterdam, NL (Contact: Webmind)
  - Venue is easy, inexpensive accommodation needs more probing

- Fallback Options:
  - Porto, PT (tentative/fallback, perhaps for v17, Contact: Filipe)
  - Berlin (C-Base)
  - Vienna (VKM)

- Chemnitz (Contact: Txt.file)
  - for 2025 because of being the European Capital of Culture

‘Your Idea Here’

### 2.2.3.1 Open Questions

- Is the mailing list “dead”? - shall we use other means?
  - in this edition, for example it helped, because we had a logo discussion that end up in battlemesh diversity workshops
  - mailing list is information that should be found again
  - it was useful during this edition, to it will continue

- Ideas for a better name for the event?
  - we did not have ‘a proper battle’ since 1978 … maybe its time to change?
  - proposal to maintain the name, and changing it through to “battle for bringing something good against”

### 2.2.4 New incorporations to orgateam

- mathias
- bastian
- dangowrt
- jesica
  - help with forms prior to the event
  - translations from english to spanish

### 2.2.5 report on battlemesh diversity workshops

- where we move the discussion on how we decide? battlemesh mailing list? matrix channel? only the emails
- I think if we should avoid urging it to include it right now, it needs work for 1-3 months
- It should be addressed before the previous battlemesh
- I propose to start with a small group

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4[https://chemnitz2025.de/en/](https://chemnitz2025.de/en/)
• txtfile will try to take care that this work is done. “if nothing gets done you are allowed to remind me”

2.2.6 Reporting for sponsors

• split and assign reference people for each topic

https://pad.cas.cat/WBMv15-report

2.3 workshop: BattleMesh diversity final part

• define collectively the objectives
• what are the axes we want to discuss around, the group of topics?
• why did we gather today?
  ◦ yesterday we discussed about a lot of topics, including practices to implement
  ◦ code of conduct
  ◦ values
  ◦ practices-actions
  ◦ protocols
• in case the main subjects are too many, they can be grouped
• if even when they are grouped, are too many, a voting will be made for having a reasonable number of main subjects for being discussed in one small group for each main subject (by giving each participant two votes to mark on the whiteboard)
• are these topics completed with yesterday’s discussion or there are things missing?
  ◦ many content on values, but we could talk much more about that
  ◦ not much things about protocols
• surely we want to decide what to discuss and what to update between events or at the next event
  ◦ publishing the values to the wiki and these notes
• do we want to speak about all of the 4 topics or which one we want to prioritise
  ◦ actions
• let’s write (uppercase for ease of writing) topics on postit and hang it on the whiteboard in the 4 areas
  ◦ at least one postit for topic
  ◦ grouping the postits according to similar topics, if needed
  ◦ this process does not expire, we can take advantage of this at any moment (we’re out of time)
  ◦ each person has 2 votes for each main subject and can indicate which topics are more relevant/urgent (marking their vote on the topics with a pencil or marker on the white board/post-it)
  ◦ CODE OF CONDUCT
    • 1
      ◦ how to communicate before and during the event
        • make sure that the participants know where to find the COC and
have them reading it
• accepting the COC is a requisite for attending, to be made explicit in the registration. Give the option to accept only partially the COC and give comments and suggestions

• 2
  o ideas of how to build the COC

• 3
  o Acknowledge that people have different sensitivities and can get offended even if COC is respected
    • the empathy should be encouraged for realizing if something you do is offending someone else, you have to care about others
    • offended person should try to stop the offense, either speaking to the offender, or leaving the physical room. For the health of the community, it is important that the offended person consider activating the protocols
    • rename the COC or create a part named “Encouraged attitudes” with proposals for making use of and give importance to the work of people developing protocols

• 4
  o make sure that is coherent with values

  o VALUES
    • 1
      o Event about building and networking communities. What type of communities we want to build?
    • 2
      o Bridge material differences
    • 3
      o Define some minimal values to publish
    • 4
      o make sure that values are clear (e.g. with examples) and to have a linked protocol in case of infringement
    • 5
      o we don’t tolerate
        • racism
        • sexism
        • transphobia
        • fatphobia
        • homophobia
        • how to address?

  o PROTOCOLS
    • 1
      o create awareness team
    • 2
      o what to do when someone feel social anxiety/panic
    • 3
      o write an affirmative action (e.g. specially encouraging FLINTAR*, ...
queer, BIPOC, and people from the local south, for example) on every call (when the event is announced)

- 4
  - create sub-group to define protocols
  - protocols for when the code of conduct is violated
  - study other protocols. Make sure they are easy and available and known by participants

- ACTIONS
  - 1
    - schedule a diversity awareness discussion session every BattleMesh
    - action for decide on reflection moments for COC, values, protocol, actions
    - check how our poster and logo of the year match values of community
  - 2
    - connect the meeting objective with hosts necessities
  - 3
    - ponor diverse people to come
    - scholarship for people outside EU
    - create a solidarity fund for travel stipends
  - 4
    - cis-male give workshop about macho attitudes
  - 5
    - invite local groups working with consensus method or diversity to come to do a workshop
  - 6
    - everyone should be comfortable in stopping i.e. harassment saying to the person “this violates our community of battlemesh values” as stated on the wiki
  - 7
    - have question in registration process about specific necessities to preserve diversity that we may be overlooking
  - 8
    - What Am I Talking (WAIT)
  - 9
    - what to do in case aggression happens
  - 10
    - gender diversity (shared showers, toilets, sleeping room)
  - 11
    - publish notes on workshop on wiki
    - publish the actions results. Follow and analyze every year. Add new actions every year
  - 12
    - divulgate (tell about and announce) about WBM for different communities
3 2023-5-12 Friday

3.1 OpenWrt

other notes\(^5\)

- lua will still be present in the next release, on the side of ucode
  - for LibreMesh we could rewrite parts to ucode
  - ucode is tiny and has been written for OpenWrt, maybe easier to learn as it
    is more similar to JavaScript, in lua is not automatic to create JSON files, in
    ucode we have bindings for network stuff from OpenWrt (so there is less
    abstraction), similar concept to run nodeJS on a server (so that both the
    frontend and backend are written in a similar language).
  - more secure than shell script as it is less likely that the user input ends being
    executed through bugs
- moving back from wolfssl to mbedssl as someone added the support for WPA3 and
  Opportunistic Wireless Encryption (openSSL is better for speed and compatibility
  but it is big, approx 1 MB, while mbedSSL is around 250 kB)
- many new devices are going to be supported
  - do you request any device to be supported?
  - can be made a guide for improving the support or adding support to devices
    similar to already supported devices, which should include warnings about
    common mistakes
  - is there checklist for verifying if the support is good and complete?
    - no because there is no absolute threshold for a device to be supported
      in OpenWrt
    - a similar migration from ar71xx to ath79 for other targets is not
      expected in a short time, and making it for ar71xx to ath79 is a bit
      late, so maybe such a checklist is not needed
    - the info on what is working and not working is in the wiki but not in
      any table nor easily machine-readable place
    - there was some continuous checking of wifi working with new openwrt
      commits
  - not all the ar71xx have been ported to ath79, even if it should be easy to do
    - just try and see what is not working
  - support for 10 Gbps devices is complicated as it needs offloading of drivers
    on the ethernet chip
  - support for 2.5 Gbps is easier but they consume more power and generate
    more heat, so the speed should be throttled. In OpenWrt the clock of the
    CPU will be controlled.
  - please report us which are the oldest devices still in use in your communities,
    so that we try to keep them supported
  - there is a fork of OpenWrt continuing the support for OpenWrt 19.07:
    immortalWrt
- the online image builder is very useful also for community networks

\(^5\)https://md.p1ng0ut.net/F_OwktsZS6ubGsovaDFcTQ
approx 50k requests each month
  • very interesting for attackers, security nightmare
• it is an online service for the routers to ask an image with exactly the packages’ set they currently have
• it has reproducible builds
• we need to create more servers, for avoiding the single point of failure and attack and for making use of the reproducible builds, making sure that the built image is the same on every server
• it can have external feeds, for example for LibreMesh
  • right now the official server does not accept custom feeds, but the software is getting adapted to containers, so that each time you add a new feed it runs in its container and some malicious package cannot attack other containers. So in a short time it will be possible even with the main server.
• requirements for server:
  • storage requirements 256 GB on SSD
  • lan1 vs eth1
  • ath79 DSA

3.2 workshop: BattleMesh diversity
• goal of this workshop: put some guidelines on the website
• values:
  • basic human decency
    • respect (e.g. do not hurt other people’s sensitivity)
      • do not judge on . . . ? (e.g. do not judge people based on religious beliefs)
    • friendliness
      • being nice to each other
    • patience
    • being thankful
    • be humble
• inclusion
  • attracting diversity (e.g. favor the participation of people from the global south for having more points of view)
  • trying to speak a common language (English)
  • allow people to speak their own language (e.g. translators or maybe even automatic)
  • helping people to get to the event (e.g. travel scholarships; helping with visa management; avoid schengen-zone?; using help from other groups with legal expertise on visas)
  • antiracism (e.g. active actions against discrimination)
  • antisexism (e.g. active and practical actions to perform before and during the event)
  • excluding discriminating behaviors and actors (e.g. antifascism)
• encourage use of inclusive language?
  ○ building community
  • build consensus through discussion and reflection
  • have explicit meeting and method to take decisions
    ○ continuous re-analysis and improvement of all the written protocols, values and actions
  • sharing knowledge
    ○ teaching
    ○ learning
    ○ active listening
  • solidarity (beyond street-level?)
    ○ mutual aid
    ○ supporting accessibility (e.g. wheelchair, translators)
    ○ solidarity for sharing the legal liability (e.g. having a decentralized solidarity fund; an insurance for the event; registering a formal association)
  ○ increasing social justice
    • bridging material differences (e.g. flexible registration fees based on income; travel scholarships; making explicit that we want people to come and that we will to make this economically feasible, avoiding the need for the participants to make the first step; no one turned away for lack of funds)

• actions:
  ○ write on the website the values
  ○ write the protocols on the website
  ○ diversity in the orga team
    • non-technical people in orga team
  ○ diversity in the participants
  ○ diversity in speakers
  ○ make sure that toilets are not gender segregated
  ○ make sure that the logo and event name are not perceived as exclusive or discriminatory
  ○ analyze terms that can be improved (e.g. master branch renamed to main; whitelist and blacklist rename to allowlist and denylist)

• protocols:
  ○ writing things
    • having both big groups and small groups (e.g. for making sure that everyone feels comfortable in speaking out)
      ○ different language groups
      ○ different genders groups
      ○ affinity groups
    • prioritizing
      ○ writing a list of things and each person ticks the top priorities
  ○ welcome
• before the event
  ◦ be outspoken about wanting to be inclusive but also are aware of not having reached that goal
  ◦ ask about what would be inclusive (e.g. having a virtual suggestion box)
• during the event
  ◦ give a flower to people when they arrive
  ◦ give a batch/name tag (with defined fields)
    • with pronouns (e.g. he/she/they)
    • ok to be included in pictures or not
    • part of the awareness-trust-reference people
  ◦ list of the awareness-trust-reference people and location of suggestion and complaints anonymous box
• harassment and conflicts
  • WBMv15 list:
    ◦ the whole orga team
    ◦ Ivana
  • make very clear and public the list of awareness-trust-reference people and the position of the suggestion and complaints anonymous box
• suggestion and complaints anonymous box
  ◦ to be placed in a bathroom
  ◦ a team should check it once per day
• awareness-trust-reference people
  ◦ several people
  ◦ needs to include diversity (but do not load the few diverse people with all the work)
  ◦ make them clearly identifiable (e.g. a hat, a warning west)
  ◦ all of the orga team
  ◦ during the event we add more people
  ◦ need of time resources to provide that role
  ◦ if external people they need to be trusted (by proxy?)
  ◦ should not be misunderstood as out-sourcing the problem, the organization still needs to listen and consider subjects raised by the awareness team
• mechanism
  ◦ a awareness-trust-reference people gets contacted by the offended person
  ◦ a 2-3 people mediation team is formed
  ◦ this team speaks with the offended person about how to mitigate the suffered pain
• proposals:
  ◦ create safe spaces where people can be at peace (empty?)
  ◦ learn from other events and organizations
• sample rules - code of conduct:
  ◦ let’s avoid writing a rigid one
o let’s avoid writing a generic and empty one
o proposals:
  • no racist nor sexist jokes (and if it happens? contact the awareness team?)
  • no sexual harassment will be tolerated (if happens, harassment protocol will be activated)
  • don’t get wasted / drunk if you cannot control yourself
• to be read and used for integrating the documents:
  o values:
    • united nations human rights declaration
  • Metalab.at came up with this basic ‘humanity statement’ template:

‘Community Name’ sees itself as an inclusive community where all people are welcome. We strive to be a place where all people engage in respectful dialogue with each other regardless of origin, sexuality, gender, disability or age.

We explicitly reject the following exclusionary attitudes:
Racism anti-Semitism Sexism Homophobia Transphobia Hostility to sex work Disability hostility

If you do not agree with our rejection of these attitudes, ‘Community Name’ and its environment are not the right place for you.

• Resources:
  Link
  Link * EasterHegg CoC * NYC Mesh code of conduct * Protocol against Sexist aggressions during holidays and events in Calafou * Calafou’s conduct, care and agreements during events * CCC Hackerethik * UN Universal Declaration of Human Rights * Contributor Convenant Code of Conduct

3.3 How to reclaim DNS for communities

Discussion on how we can have DNS infrastructure independent of states and commercial companies for (smaller) communities.

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6https://metalab.at/wiki/Humanity_Statement
8https://docs.carpentries.org/topic_folders/policies/code-of-conduct.html
10https://www.nycmesh.net/coc
11https://wiki.calafou.org/index.php/Protocolo_contra_las_agresiones_sexistas#ENG:_Protocol_against_Sexist_aggressions_during_holidays_and_events_in_Calafou
12https://wiki.calafou.org/index.php/INFO_B%C3%81SICA#Conduct.2C_care_and_agreements
13https://www.ccc.de/en/hackerethik
15https://www.contributor-covenant.org/
• ICANN is running DNS, hence problems
• Let’s talk about communities and trust, there is no ‘global community’:
• ‘parallel DNS system’
• several exist e.g. .onion
• e.g. Freifunk: private IPv4 space is locally claimed, using wiki page
• Alternate roots according to wikipedia\textsuperscript{16}
  \hspace{1em}• opennic\textsuperscript{17}
  \hspace{1em}• smartphone problem: most of alternative TLD are not accepted by Google Chrome. .test is good. Maybe also .local

link\textsuperscript{18}
earthstar project\textsuperscript{19} is a specification and JavaScript library for building connected applications owned and run by their users.
Link\textsuperscript{20}: example of how blocklists are shared, filtered and merged on the fediverse
interesting about resolvers\textsuperscript{21}
Pi-hole has this excellent article\textsuperscript{22}
And there is this note on unbound’s config:
\begin{verbatim}
# Use this only when you downloaded the list of primary root servers!
# If you use the default dns-root-data package,
# unbound will find it automatically
#root-hints: "/var/lib/unbound/root.hints"
\end{verbatim}
The root.hints file can be customised, which is what could help have some community-run distributed ~TLD thing

\subsection{3.4 Tor Workshop}

\section{4 2023-5-11 Thursday}

\subsection{4.1 Fediverse Workshop / Discussion Round}
coordinated by nono,cypherhippie,…

• Where are SYNERGIES between community mesh network projects AND running fediverse instances (for communities)

\textsuperscript{16}https://en.wikipedia.org/wiki/List_of_Internet_top-level_domains#Alternate_roots
\textsuperscript{17}https://www.opennic.org/
\textsuperscript{18}https://www.rfc-editor.org/rfc/rfc6762#appendix-G
\textsuperscript{19}https://earthstar-project.org/
\textsuperscript{20}https://writer.oliphant.social/oliphant/the-oliphant-social-blocklist
\textsuperscript{21}https://jvns.ca/blog/2023/05/12/introducing-implement-dns-in-a-weekend
\textsuperscript{22}https://docs.pi-hole.net/guides/dns/unbound
Paul is setting up a projet in Vienna to study how a local instance for people living in the city would work. There are existing instance, but the goal is a go on a bigger scale. His background : he started looking at the fediverse in 2018. He likes the mode of communication, comming into contact with ppl you don’t usually meet. Hooked in the fediverse. It didn’t go beyond niche interest but Mastodon got a lot of attention. He’s working a PHD research ( 2 years of funding ) on how to run more democratic instances - howto distribute admin power.

Q: Mastodon or fediverse ?
A: Fediverse, but also has implic

Q: How do you use the fediverse ?
A: Nono is a moderator on several french instances, use it as main social network.

A: In italy, we areusign the resource of our community network we run a mobilizon instance that is used, the software has some issues, link23, for me most about the not clear different between private/public. There is a radical group that is building a new software Gancio for event in activitypub. You can only follow instance. Mobilizon doesn’t push you to use the web client, but push you to embed the event inside your website. we are also testing Peertube, for the past two years. In the mesh network contexte it’s interesting because it uses P2P WebTorrent ton share the videos. In the mesh network, the P2P works well, on a try instance, even with streaming. I’m also using a blog network Wordpress with an AcivityPub plugin... problem about user’s based idea of mastodon.

A: Emulation the twitter model can be quite overwhelming, has experience with GNUSocial. The different application model is interesting.

A: On the NUNIX network, a mobilizon instance has been setup for the past two months. It’s still young, and been tested. He tries the stay on mastodon but doesn’t like social network, the enthousiame has died down a bit. Can be used as a feed reader empowered by the AP objects. There is a Gancio server, they are taking a very different approche to it. gancio24 On is near anonymous “This is not an ego-friendly platform.”, when Mobilizon has a focus on group’s identity.

A: User since 2016, tried Pixelfed. Main use case is community. Hasn’t seen spam, thanks to good moderation ( chaos.social ). Not interested in creating big communities. Some people have huge following, but 10K+ it changes the dynamic. It turns into a broadcast. The influx of new people changes the community dynamic, more features are asked for. Tries to mimic the old network ( twitter ). The instance has two moderators ( a lot of work for them ), not a very very strict instance, they keep the bullshit out. The bubble effect of the fediverse is interesting, a bathtub of venn diagrams, seen as a plus.

Q: How does the moderation in mesh networks translate to the fediverse ?

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23https://agenda.reteappenninica.it
24https://gancio.org
Q: If the community is bubbly, how does the moderation work? (Not sure I got that question well ~ sorry)

A: In Greece, feeling of being far from the fediverse. Only users, doesn’t see a community. Tries to setup an instance in a community for young people (mainly XMPP). The internet is mostly Facebook. Some people are far from the Mastodon community.

A: It resonates with Guifi net: because mailing lists where a bit dead, they moved to IM (Rocket.chat). The Matrix clients then became good enough, so slowly switched to it. They have a home server. It works pretty well to discuss issues with Guifi net. Mainly technical people. exo.cat decided to host the “official” homeserver. The groups are open, some people come from other homeservers. The issue of account creation was an issue, providing a default was a solution. No big issues on moderation, the community stays on topic and focused.

A: Coming back to mobilizon, the groups interface is a bit new, and doesn’t feel very easy to use.

Q: Difference between Mobilizon and Gainco?

A: Gainco just published an event in a calendar, basic but allows anonymous publishing. Mobilizon does a lot more: it goes into the detail of organizing an event, has groups, internal discussions, search function (with distance for example). You can see events from other instances. There are themes and topics in Mobilizon.

Q: Did you have any need on moderation?

A: Not really.

• What are BEST PRACTICES to elect moderators?
• what if it’s an instance for a LOCAL community?
• What kind of governance we could put in place?
• What about using existing organisation to maintain fediverse servers and governance?
• Is setting up a fediverse server for a local ISP/mesh network not putting too much responsibility in one organisation? (Separating the hosting of services and the ISP)
• How well do fediverse/AP implementations function on networks that have sporadic internet connections.

Has a retry function, a bit like emails.

Mastodon has good resilience.

They are servers using a whitelisting (so they can trust others).

Q: If you use whitelist, how do you discover people on not whitelist?

A: You can use different accounts/identities with different servers.
Q: Usage of Mastodon as a collective account, and also a Wordpress blog with AP. So not really using multi accounts.

Q: Do you have interaction with people on Wordpress? (Bad interactions)

A: Not really. The wordpress plugin divides the post by Authors, you can’t follow all of the blog. They prefer using the Mastodon Auto Posting plugin.

Q: Can you find the blog via the search?

A: Yes, it looks like another Mastodon instance.

Q: What moderation capabilities do you have in the comments?

A: I never saw comments, so I wouldn’t know. The comments seem to not be coming through.

Regarding moderation:

You can have a reversion process of federation / defederation.

The issue already existed with Moderation in the indymedia.

nono: Context: there are currently three instances managed by close people in paris. Idea: local based instances, invitation only, using printed invite vouchers. Plan: the collective elects people in the mod teams Open Issues: admins have a lot of power, solutions to multi-access, transparency Regular community meetings 50k users cost some serious hosting money

4.2 Altermundi Update

5 2023-5-10 Wednesday

5.1 IPv6 Introduction / Q&A

Intended audience: familiar with ipv4 basics.

We had about 15 people. - started with a basic introduction with what IPv6 (size & looks) is and why we need it (shortage, monetisation of IPv4, inaccessibility to public ip space to communities, simpler networks) - Then Q&A, questions on - ip delegation differences SLAAC, DHCPv6 - How NAT works and how IPv6 solves it - Network design examples (what sizes to use, how to route) - IP memorability and IP planning in IPv6 - Usage and advantages with MESH networks. - Availability and usecases for Private IP space (fc00::) - Spent about 1h discussing the questions

5.2 network for catastrophes and war

coordinated by Reinhard, contact email: i4freegr@gmail.com

17
• reinhard
  o (…)
  o communication basics in the context of war (or being killed)
  o how we approach? wifi?
  o complains complexity of firmwares such as libremesh, gluon, etc.
  o make an email for the project, a name
• daniel: points to commotion project
• reinhard: (…)
• nono: adds links related to the topic. natural catastrophes, they setup access points
  o Ingénieurs sans frontières\textsuperscript{25}
  o Internet without borders\textsuperscript{26}
• reinhard: are there international projects or only french-based
• nono: international
• daniel: IETF subgroups kind of relevant to its GAIA. DTN (Delay Tolerant Networks)
  o link\textsuperscript{27}
• reinhard: my practical usage is more “low level”, I tried to do the connections to some of that people and they don’t have time. How many living communities do they have such existing technology?
• cri: I comanage an island of ninux community network. Ubiquiti hardware. Gifted old hardware from a WISP. They use libremesh
• reinhard: OpenWrt 15.x to 18.x, some libremesh, some scripting; I would not take this as basis, it’s.
• daniel: leipzig uses libremesh
• pedro: in Barcelona we use qMp (Quick Mesh Project, uses BMX6, is OpenWrt with templates based on Temba). links
  o qmp\textsuperscript{28}
  o temba\textsuperscript{29}
  o qmpmon\textsuperscript{30}
    o qmpsa\textsuperscript{31}
    o qmpsu\textsuperscript{32}
  o so we don’t use libremesh at all but we take in consideration what they are using, and we feel part of the community
• reinhard: are we kind of isolated
• catuaba:
• tania: working with a project in india where the idea is to make boxes (containing routers with libremesh) which use simple lights or audio to communicate to non-technical users using them that they are turned on and connected/meshed.

\textsuperscript{25}https://www.isf-france.org
\textsuperscript{26}https://internetwithoutborders.org
\textsuperscript{27}https://datatracker.ietf.org/rg/gaia/about/
\textsuperscript{28}https://qmp.cat/Home
\textsuperscript{29}https://gitlab.com/guifi-exo/temba
\textsuperscript{30}https://dsg.ac.upc.edu/qmpmon
\textsuperscript{31}http://dsg.ac.upc.edu/qmpsa/index.php
\textsuperscript{32}http://dsg.ac.upc.edu/qmpsu/index.php
• reinhard: on boot time fetches a central server/router
• pedro: we just hardcode openwrt config and reduces maintenance burden
• cristina
  ◦ automatically build libremesh with a network configuration when you reboot
    still have all the settings working (more robust)
  ◦ we have a fallback way to communicate, sometimes UMTS phone network
    does not work, we have some radio that we use on LPD channel on UHF
    band
• reinhard: I want to find (…)
• matthias: how do we want to distribute the network (…) define your exact idea
  on which situation it should work best
• reinhard: we flash the routers, we do the first boot, we test it and we send the
  routers ready to deploy
• cristina: librerouter makes openhardware routers, looks like it is what you are
  looking for
• reinhard: who would be interest in do something, how many active people we
  could relay?
• daniel: a good start would be justifying different scenarios.
  ◦ a zone with nothing
  ◦ preexisting infrastructure that it could fail in certain circumstances. in an
    official disaster situation, routers should mesh themselves and so on, and
    that’s OK but it’s topdown approach
• reinhard: (…)
• daniel: depending on the circumstances you have different hardware, inventory,
  etc.
• reinhard: we have a mesh, eventually a gateway; starlink? anybody knows
  starlink?
• daniel: it runs openwrt
• reinhard: opportunity to get some people working or give some ideas, based
  on the previous experiences; what we want to do. Simple, cheap, there. As an
  extreme example, in Australia, there was an experiment of throwing fire resistant
  bricks with sensors in the middle of nowhere, to have a zone to watch for (…)  
  Hopefully we can get something running that anybody can run it. We could fund
  some hardware (…) I do sailing, so I have a lot of experience in fixing electrical
  outages, etc.
• degauss: disaster radio33 they stopped in March 2020; they worked in this kind of
  scenarios, solar panel
• seems like email is fine for communicating, and that in the following days we can
  arrange some group
• reinhard: I would like to organize something on that direction.
• ilario: question about antennas in the scenario of disaster: is sectorial too difficult
  to set up?
• reinhard: 60 degrees, we don’t want to go far. We have made connections.
• ilario: because we don’t need huge performance on the network, right?

33https://disaster.radio
• reinhard: we care about the cost, wifi would be the lowest cost. I would prefer 2.4 GHz
• ilario: For access points, for mesh we could use lower frequencies
• reinhard: elektra did things on whitespaces
• daniel: librerouter was designed this in mind
• reinhard: we don’t care too much what is there. cheapest router capable for being outside and that run OpenWrt. I have 22 nodes, and the very old ones are; it cost 50-60$ a piece. I did converters PoE converters for 2$, I would make a little bit the design for powering these kind of devices. Simple, fast, reliable. (...) It should be possible to give it a start.
• jesica: average quantity of nodes on this scenarios
• reinhard: 4-5 nodes, not a lot of people. 2-4 families to coordinate in this kind of situations where they cannot talk with the rest of the world.
• jesica: what about the distance between nodes
• reinhard: past experiences with tp-link CPE210, medium speed, 2-3 km to the uplink (1 hop). I have no more than 3 hops
• jesica: I don’t think tplink works on 4 km
• daniel + reinhard: yes, it works on 2.4 GHz, not on 5 GHz
• [ it's 17:04 and we should move to the next talk : ) ]
• jan: LoRa has features of low bandwidth
• reinhard: normal chat messaging inside this, that would work the same. on LoRa
• ilario: access point (with web interface for chat) connected to the LoRa (for mesh)
• janvier:
• ilario: sounds better, it can

5.3 building and supporting imaginary round table

• cristina:
  ○ are we aware on an structural issue on our society? we are in the shoulder of giants
  ○ in calafou there is a manifest that they are nonsexist, noncolonialist (...) about nondiscrimination. we are living good things, but also a lot of bad things. some of us try to work on “expanding the good and reducing the bad”. Here (calafou) we are in a place that took a political view on life
  ○ it’s difficult to address this problem, I don’t want to became too much addressing it. I have some idea why we should be talking about this in the FOSS community. It is still strange to talk about this structural issues. I grow up in a community that discriminated me as a woman. A lot of times we do not address this conversation in group because it makes us feel uncomfortable. I think here it is a good place to address the issue.
  ○ I selftaught me reading books about racism to avoid. un pequeño manual antirracista34. During this roundtable we could be exchanging resources like this.

One point that is very critical, is the point of view. Example, it happened to me to go to a university talk with a friend (a woman and a man), we went both to speak, when we exit my friend said that there was a master in feminism, very aware on the problem, etc. And I did not feel the same, when I just entered, I asked for the room for the talk, and the guy started joking and make me feel very uncomfortable. The joke was, “you are under 16”, but I was going to conduct a talk, and I was not getting the info to get into the talk and I was late.

The problem of the point of view, someone that not embodied the social problem (not being a woman, for example), if you are not discriminated, you cannot say that the place is discriminated or no. For example, I cannot say if my organization is discriminating or not, only that it is not discriminating me. I thought also that in our communities we are only white man completely are not seeing the problem and they need my help, or the help of the others (the people that embody the discrimination experience).

The problem of tyranny of the structurelessness\textsuperscript{35} we are not educated to feel part of this. In a lot of groups I was the only woman, and a lot of times I see a point of view that is different from the rest. “You are the only that have this opinion”

- jesica: She did not say anything. No, she is tired of saying it too much time
- cristina: roles when you are in teams. Remember not to say “you are the only” to someone that has embodied the discrimination. Someone gifted to me a nice metaphor. Finantial ethics, normally the bigger problem of the project is that does not want to share power (or produce a power shift). Sometimes they help on consensus method to help the groups. Is not involved in the decision making process. This happen because when you are a group. Sometimes group focalize to find the smaller part to rule the group: The greatest common divider (GCD)\textsuperscript{36}.

Teaching how to move as a group altogether, where we all feel confortable.

- matthias:
  - thanks a lot for bringing this topic. It’s a multilayered problem, how we reproduce power structures here, how we act together; should battlemesh have a code of conduct? which parties are really represented here.
  - psychological studies show that when (…)\textsuperscript{35}
- ilario: this morning in the coffe space, one person that was not in previous battlemesh it is . how welcoming would be the atmosphere. calafou helped. maybe the name battlemesh did not help. with code of conduct we could have a set of actions (make sure that the toilets are not gender segregated), harassment protocol, etc. When you approach a website it is more difficult to work on
- thijs: I have been in several battlemesh events and hackerspaces; in these communities I see more trans-people than in the rest of society; I encourage it, and wonder how can we spread this inclusion to the rest of society?
- matthias:

\textsuperscript{35}https://www.jofreeman.com/joreen/tyranny.htm
\textsuperscript{36}https://en.wikipedia.org/wiki/Greatest_common_divisor
• thijs:
• ilario:
• jesica:
• ?: in hackerspaces there are more neurodivergence
• cristina: are we sure we are ready to welcome diverse people and we will not hurt them?
• daniel:
• ilario:
• jesica: I have some contrasting feelings, in one hand I am happy that man says we need to welcome diversity, woman, etc. but at the same time I feel that . The responses are very poor. Some people understand that our presence is important but I don’t understand why
• (…)
• cristina: how the community take the decision, why you want more people inside of your community, when there is an answer, because more diversity more holistic future view we have,
• pedro: should we do a form for feedback
• cristina: they are using their time for themselves, “this is your problem you have to learn, and I want to” . opressed people to help us. a lot of documentation already written about centuries, women, black people, etc. their time to help them.
You have more time than me, you can learn by yourself
• jesica: some of you helped me to feel good, thank you for that
• cristina: we can share sources, that is very good. Problem discriminating black people, gender in different ways, for example people that discriminate people that don’t want to choose gender, migrants, agism.
• jesica: discrimination on parenting, it is very difficult for me to not with them. It’s difficult to find events that include small people (children), for me it’s continuous. How hard is for a parent to be here. I am sad for all that people feel that cannot participate because of that
• catuaba: In conferences in Brasil there is a team that takes care of children, creating a safe space for them. Different views, different shapes. If we don’t clean our house, we cannot clean the hackerspace
• max: I just want to mention, sanketh, which his visad was rejected,
• jesica: I would like to remark that I feel we are the beautiful part of the world, we can make it better
• catuaba: often there are only women listening to women talking about women problem, it is good that here there are others in the audience and did not leave.
• ilario: doing this talk every year should help to increase the sensitivity of the community
• catuaba: we can hack with the workshop for having more participation
• ilario: “wireless diversity”37
• cristina: I like a lot if someone brings to every convention (…). Exist a lot of sources that can help as.

37https://en.wikipedia.org/wiki/Antenna_diversity
5.4 LQDN Presentation by Nono

- nono:
  - lqdn is a lobbying entity in france about digital rights and freedom
  - new law in france: biometric surv cctv
  - criminalisation of cryptography in UK,FR, ..
  - use algorithms and AI to discriminate people. who can receive the social welfare and who not based on AI decisions. Exclusion from social life is getting automated

- nono: are drones used by the police in cities these days?
- jan: yes, here in spain they used it, in concert, in demonstrations
- nono: since how long was authorised?
- jan: two years
- nono: other contries?
- catuaba: 250 drones in Sao Paulo

- arinc: talks about ISPs analysis in Turkey

- degauss: womenonweb censorship (about medical abortion kit), additional link also in Spain; court resolution

- nono: censorship in guifi?

- txt.file: Only 2 informal requests from police in ~ 10 years of running a Freifunk network. Both cases we said “we do not have the data you asked for” and newer heared anything again. Not aware of DNS censorship in Germany.

- cristina: In Italy Gutenberg Project was censored in year 2020, there is a report at ooni website

- nono: EU problem regarding ban of flashing firmwares

- became harder in the last years. e.g. Ubiquity hardware:
  - 5 years ago: flash OpenWrt directly from WebUI
  - year 2023: downgrade vendor firmware a bunch of times until a beta firmware the accepts unsigned firmware, flash unsigned firmware, flash OpenWrt from unsigned firmware

- Max Mehl hold a talk on battlemesh v16 (2020)

- pedro: Max Mehl does not work anymore in FSFE - New Contact: Alexander Sander

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38https://www.saopaulo.sp.gov.br/ultimas-noticias/sao-paulo-tera-novo-programa-olho-de-aguia-4-0-com-uso-de-drones/
39https://arinc9.com/Turkey-s-ISPs-Analysis--44cf87be16614735af0f2097a2e9b096
40https://womenonweb.org
41https://en.wikipedia.org/wiki/Women_on_Web#Censorship
42https://donestech.net/noticia/censura-en-el-estado-espanol-de-womenonweborg-explicacion-tecnica
45https://www.battlemesh.org/BattleMeshV13/Talk_proposals?highlight=%28max%29%7C%28mehl%29#RED_and_https:.2F.2Ffsfe.org.2Factivities.2Fradiodirective.2F_.28talk.29
46https://fsfe.org/about/people/sander/sander.en.html
5.5 cowmesh community network in India

- max and catuaba present the project
- they show us a video: Community Owned Wireless Mesh (COW Mesh) - Janastu with the support of APC & Sida
- catuaba:
  - they denied sanketh visad and that’s why now is not here presenting the project
- max: presents event anthillhacks
- catuaba: in libremesh/librerouterOS v1.5 there is no monitoring system management, we have to go one by one
- catuaba: this is an invitation to all of you to come. It’s very interesting the cultural exchange, and it’s easy because they speak English as well
- sankalp: can you talk a little bit of the work of apc
- catuaba: supported cowmesh project: network deployment, deployment of telecom tower

More about COWMesh

Get in contact with Janastu org -> web or dinesh@servelots.com Video about bamboo tower

6 2023-05-09 Tuesday

6.1 lunch

topics:

- tasks’ table: better two people for each shift
- reminder for form kalapiscina
- reminder for paying the catering
- schedule of the afternoon

6.2 talk: Opening

- This is a self organized event so if you wanna be part of orgajust joing the group, we have a flat hierach

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47https://www.youtube.com/watch?v=MIsm8KV0eOs
48https://anthillhacks.in
49https://open.janastu.org/projects/cowmesh
50https://janastu.org
51https://vimeo.com/799968976
52https://formularis.exo.cat/battlemesh-v15-kalapiscina2
- we have a pad to add topics to debate\textsuperscript{53}

### 6.3 talk: Network from BattleMesh to Calafou

- Using LibreMesh on top of openwrt 22 because the devices that was in place do not support openwrt 19
- Added profile we are using to github/Libremesh project, it has documentation of hardware and config used at Calafou\textsuperscript{54}
- map of current network contribution to Calafou\textsuperscript{55}
- routers configured to reboot every week
- Using batadv and babel as mesh protocols
- Before Calafou had cables and it became old and hard to fix, now was take an approach of meshing and connecting nodes by wifi
- It easier to debug, cables are harder to debug where they go and here there is no interference from neighborhood
- The building of this place are changing and moving so cabling now is not a good idea, also there is rats
- There is space to explore prometheus, all router are propagating data but for now is not a place collecting it

### 6.4 talk: Start testbed

- Frederico from OpenWisp
  - Plataform to manage networks - Open Source network Management System. Web\textsuperscript{56}
  - Matrix channel about this topic at #battlemesh-testbed:matrix.org
- Was setup account for battlemesh and it is open to receive help from others testing it
- We are interesting into testing, it is not hard
- Pedro flashed the devices, they have default mesh interface
- Routers can be managed by groups where you can change configuration based in templates
- 3 devies at BattleMesh are connected to OpenWisp and can be used to testbed and they probably will not interfer to mesh in general
- if you have knowledge about the protocols Frederico wanna help to check if is working properly
- OpenWisp could add maybe add support to LibreMesh as OpenWisp is a Management System and it do not conflict with LibreMesh firmware
- Common room to join and share test ideas\textsuperscript{57}

\textsuperscript{53}https://pad.cas.cat/WBMv15
\textsuperscript{54}https://github.com/libremesh/network-profiles/tree/master/calafou
\textsuperscript{55}https://github.com/libremesh/network-profiles/blob/master/calafou/CALAFOU-B-network_map.jpg
\textsuperscript{56}https://cloud.openwisp.io/
\textsuperscript{57}meet.guifi.net/battlemesh-testbed
6.5 talk: Calafou Network

- SG2008 is Omada capable
- while discussing the existing hardware, the idea arises to port OpenWRT to support the hardware for simple switching; it should be possible to also add prometheus
- one open issue is the question how to modify configurations of the routers; go by each router one by one (means the people have to be on-site), or have some orchestration layer like OpenWISP
- it is suggested to have some form of monitoring system to detect and notify failures
- one step to improve the network at the flats is to figure out which cable runs where; with cable testers, this can be done

7 2023-05-08 Monday

7.1 dinner

- toilets in the social center (dining place) are for peeing, toilet paper should go in the waste bin
- dry toilets in the parking lot are both for peeing and pooping, throw sawdust on top
- there is a board for daily tasks, please add yourself to the “heroes’ table”
- please pay the catering money (90 euros for the whole event or 18 euros for single days) to either Marek or Paul or Ilario
- if you requested a t-shirt, please pay it to Ilario (10 euros)
- we updated breakfast schedule to be available from 9h to 10h
- warm shower is in the toilet from the social center. Room temperature shower is in Casa Roja.
- we agreed to not smoke inside, and careful smoking outside for the risk of wildfires (everything is very dry here)
- by the 15h of 2023-05-09 select what you want for Thursday’s dinner main dish (we already asked for some tapas to share (bravas, hummus, salad, assorted cheese)) at this link 58
- at 12h on 2023-05-09 we will have a tour of Calafou, bring sunscreen or hat
- beer is produced km0 (10 meters away from the tap) and 0.33 L cost 2 euros, to be put in a plastic cylinder next to the tap

58 https://formularis.exo.cat/battlemesh-v15-kalapiscina2