GAIA @ IETF 123

Chairs: Kurtis Heimerl, Jane Coffin, Adisorn Lertsinsrubtavee

Note taker: Benson Muite

Agenda:
New co-chair Adisorn Lertsinsrubtavee

There are 3 presenters for GAIA @ IETF 123 per the agenda. Agenda, speaker names, presentation titles, and other information is directly below, followed by minutes/Q&A

AGENDA

Global Access to the Internet for All (GAIA) IRTF WG
IETF 123, Hybrid

Date: 25 July 2025

Time: 2025-07-25 07:30-09:00 UTC

Meeting Room: Castilla [Breakout 5] (size: 175)

Room video: https://meetings.conf.meetecho.com/ietf123/?session=34422

Room audio: https://mp3.conf.meetecho.com/ietf123/34422.m3u

Room chat: https://zulip.ietf.org/#narrow/stream/gaia

[DataTracker] https://datatracker.ietf.org/meeting/123/agenda

[Slides: upload yours here] https://datatracker.ietf.org/meeting/123/session/34422/slides

[Notepad] https://notes.ietf.org/notes-ietf-123-gaia

[NoteWell] https://www.ietf.org/about/note-well/

Agenda
Administrivia

Welcome, Agenda Bashing, Minutes taker, Note Well, other

- Jane Coffin, Kurtis Heimerl,Adisorn Lertsinsrubtavee co-chairs

- 5 minutes

Alex Mwotil/Engineer Bainomugisha (Makerere University) speaking on CraneCloud, their cloud management/deployment platform (https://cranecloud.io/about)

Adam Burns (Battlemesh) speaking on work done with Freifunk (DE community networks) & other community networks with regards to standards (compliant implementations and hacking extensions), specifically with DNSSEC and service discovery.

Ritu Srivastava (IEEE) speaking on Connectivity Performance measurement for rural regions.

Alex Mwotil/Engineer Bainomugisha (Makerere University)

speaking on CraneCloud, their cloud management/deployment platform (https://cranecloud.io/about)

KH: Is crane cloud just for Uganda?
AM: Funding is limited to Uganda, so currently the platform is for Uganda. Would like to expand to other places in Africa.

KH: What kind of workloads do you see?
AM: 50 to 100 users after training for AI workloads. Video streams, building APIs, web apps.

BM: Resources, Power?
AM: About 5 nodes, RENU about 5 nodes, ML 2 node cluster [RENU is the Research and Education Network for Uganda https://renu.ac.ug/]
128 cores, 64 cores

BM: Power monitoring?
AM: do not currently monitor power. RENU - get provisioned machines. With university, power monitoring possible.

Adam Burns (Battlemesh)

Speaking on work done with Freifunk (DE community networks) & other community networks with regard to standards (compliant implementations and hacking extensions), specifically with DNSSEC and service discovery.

Olaf Kolkman: When [Can] you create subdomains, all within [the] zone?
AB: You can sub delegate and run own dns server below that point. Needs more development, but possible with NS records.

OK: You use NSEC3 to prevent zone walking
AB: Would need to check. This is domain implementation specific.

OK: Normal NSEC has zone walking, and putting location coordinates may have privacy problems
AB: Thanks. If installing software on your own phone, likely publishing to a public data base. Not for everyone
OK: Requires people to read terms of service.

Raquel Renno11: Are the Freifunk meetings in Berlin open to new participants? Are they in English? :)
AB: Open to new participants. Meetings happen at C-Base. 1st Wednesday of the month. In English.

KH: Comparison with zero-conf, avahi?
AB: Avahi can be used to query wide area DNS, can be used to browse service discovery in a wide area sense. Command line tools can be used, GUI not fully supported.

Ritu Srivastava (IEEE)

Speaking on Connectivity Performance measurement for rural regions

Hanna Kreitem: How [do you] measure social aspects?
RS: Existing parameters. Coverage area, population, services provided. e.g. Free government services, premium digital services. Where we serve, dense/sparse population? What quality? Internet and also intranet? Also, community radio station operators.

KH: User perspective (intermittent, to some ISP somewhere). ISP, good power with UPSes. Both are in scope for what doing. Where does your energy go first? Go and instrument frontier networks or go to clients.

RS: Energy and solar powered routers are being counted. Also measuring power outages, also considering geographical barriers/mountains. Looking for people willing to try out the tools.

JC: We can put you in touch with US broadband mapping communities.