IETF 113 ROLL - Routing over Low-Power And Lossy Networks

Chairs:
Dominique Barthel
Ines Robles

Secretary:
Michael Richardson

23 March 2022

IETF 113 Vienna
hosted by

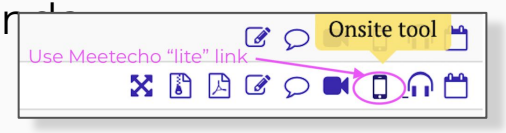
This session is being recorded

This session is being recorded

IETF 113 Meeting Tips

In-person participants

- Make sure to sign into the session using the Meetecho (usually the “onsite tool” client) from the Datatracker agenda
- Use Meetecho to join the mic queue
- *Keep audio and video off if not using the onsite version*



Remote participants

- Make sure your audio and video are off unless you are chairing or presenting during a session
- Use of a headset is strongly recommended

Resources for IETF 113 Vienna

- Agenda
  https://datatracker.ietf.org/meeting/agenda
- Meetecho and other information:
  https://www.ietf.org/how/meetings/113/preparation
- If you need technical assistance, see the Reporting Issues page:
  http://www.ietf.org/how/meetings/issues/

Note Well

This is a reminder of IETF policies in effect on various topics such as patents or code of conduct. It is only meant to point you in the right direction. Exceptions may apply. The IETF's patent policy and the definition of an IETF "contribution" and "participation" are set forth in BCP 79; please read it carefully.

As a reminder:

- By participating in the IETF, you agree to follow IETF processes and policies.
- If you are aware that any IETF contribution is covered by patents or patent applications that are owned or controlled by you or your sponsor, you must disclose that fact, or not participate in the discussion.
- As a participant in or attendee to any IETF activity you acknowledge that written, audio, video, and photographic records of meetings may be made public.
- Personal information that you provide to IETF will be handled in accordance with the IETF Privacy Statement.
- As a participant or attendee, you agree to work respectfully with other participants; please contact the ombudsteam (https://www.ietf.org/contact/ombudsteam/) if you have questions or concerns about this.

Definitive information is in the documents listed below and other IETF BCPs. For advice, please talk to WG chairs or ADs:

- BCP 9 (Internet Standards Process)
- BCP 25 (Working Group processes)
- BCP 25 (Anti-Harassment Procedures)
- BCP 54 (Code of Conduct)
- BCP 78 (Copyright)
- BCP 79 (Patents, Participation)
- https://www.ietf.org/privacy-policy/(Privacy Policy)

Note Well Cont.

•IETF meetings, virtual meetings, and mailing lists are intended for professional collaboration and networking, as defined in the IETF Guidelines for Conduct (RFC 7154), the IETF Anti-Harassment Policy, and the IETF Anti-Harassment Procedures (RFC 7776). If you have any concerns about observed behavior, please talk to the Ombudsteam, who are available if you need to confidentially raise concerns about harassment or other conduct in the IETF.

•The IETF strives to create and maintain an environment in which people of many different backgrounds are treated with dignity, decency, and respect. Those who participate in the IETF are expected to behave according to professional standards and demonstrate appropriate workplace behavior.

•IETF participants must not engage in harassment while at IETF meetings, virtual meetings, social events, or on mailing lists. Harassment is unwelcome hostile or intimidating behavior -- in particular, speech or behavior that is aggressive or intimidates.

•If you believe you have been harassed, notice that someone else is being harassed, or have any other concerns, you are encouraged to raise your concern in confidence with one of the Ombudspersons.

Source: https://www.ietf.org/about/note-well/

IETF

Resources for ROLL@IETF 113 Vienna

- Remote Participation
  - Meetecho: https://meetings.conf.meetecho.com/ietf113/?group=roll&short=&item=1
  - Material: https://datatracker.ietf.org/meeting/113/session/roll
  - Jabber: xmpp:roll@jabber.ietf.org?join
  - CodiMD: https://notes.ietf.org/notes-ietf-113-roll
  - Minute takers: **Please volunteer, thank you :)**

IETF

Agenda

Wednesday, March 23th, 2022

12:00-13:00 (UTC) Wednesday Afternoon session I

Time (UTC)	Duration	Draft/Topic	Presenter
12:00 - 12:20	20 min	WG Status	Ines/Dominique
12:20 - 12:35	15 min	draft-ietf-roll-dao-projection	Pascal
12:35 - 12:50	15 min	draft-ietf-roll-enrollment-priority	Michael
12:50 - 12:55	5 min	draft-ietf-6lo-multicast-registration	Pascal
12:55 - 13:00	5 min	Open Floor	Everyone

IETF

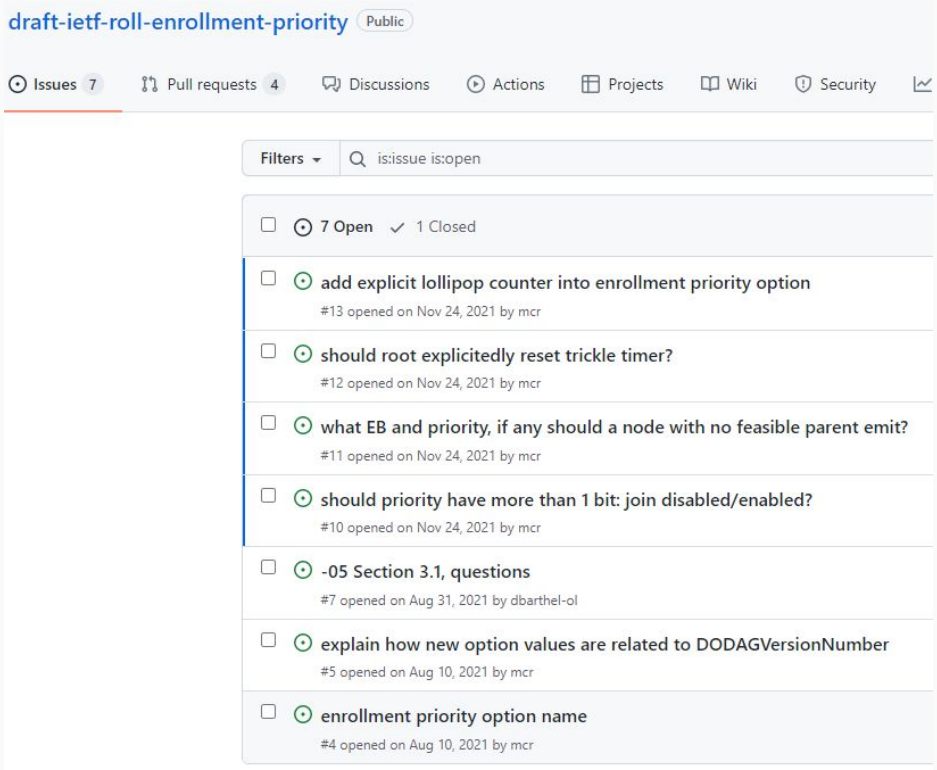
Draft status

Common Ancestor Objective Function and Parent Set DAG Metric Container Extension draft-ietf-roll-nsa-extension-10	AD evaluation, revised I-D needed
Supporting Asymmetric Links in Low Power Networks: AODV-RPL draft-ietf-roll-aodv-rpl-13	IESG evaluation, AD follow-up Short discussion today
Root initiated routing state in RPL draft-ietf-roll-dao-projection-24	Discussed today To be WGLC'ed
Controlling Secure Network Enrollment in RPL Networks draft-ietf-roll-enrollment-priority-06	Discussed today
Mode of Operation extension draft-ietf-roll-mopex-04	waiting for attention
RPL Capabilities draft-ietf-roll-capabilities-09	waiting for attention
RPL Storing Root-ACK draft-jadhav-roll-storing-rootack-03	WG adoption to be called
RNFD: Fast border router crash detection in RPL draft-ietf-roll-rnfd-00	New Work adopted by the WG

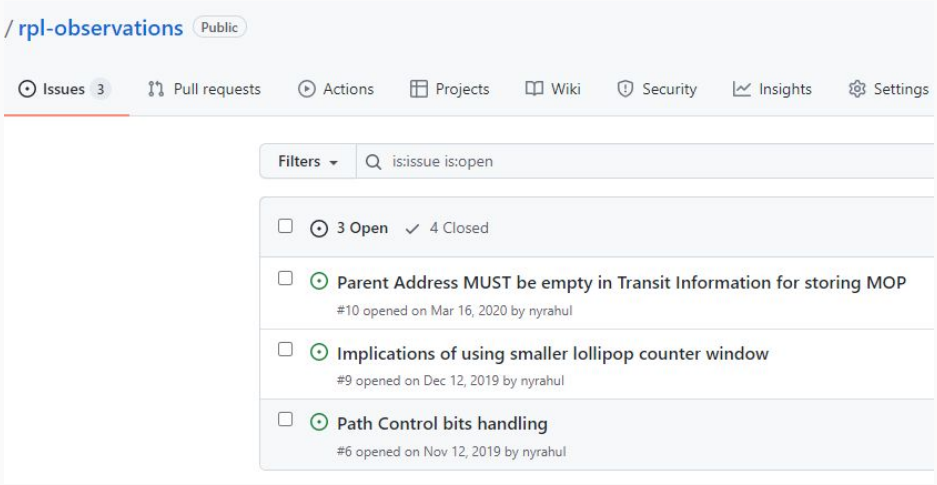
Milestones: proposed changes

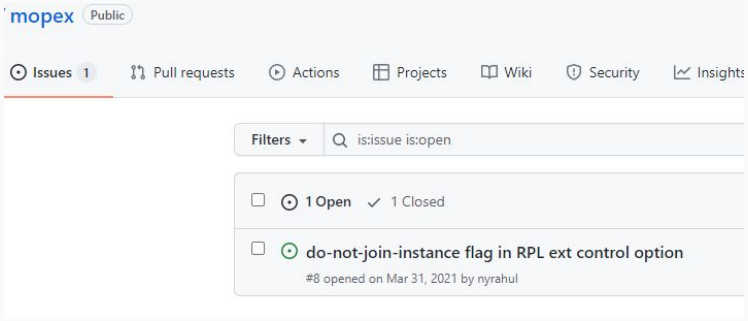
Initial submission of a root initiated routing state in RPL to the IESG draft-ietf-roll-dao-projection	2022
Initial submission of Enabling secure network enrollment in RPL networks draft to the IESG draft-ietf-roll-enrollment-priority	2022
Initial submission of Mode of Operation extension and Capabilities for RPL to the IESG draft-ietf-roll-mopex-cap	2022 2022
Initial submission of “RNFD: Fast border router crash detection in RPL” to the IESG draft-ietf-roll-rnfd	2023
Initial submission of a proposal to augment DIS flags and options to the IESG draft-ietf-roll-dis-modifications	2023
Initial submission of a YANG model for MPL to the IESG draft-ietf-roll-mpl-yang	?
Initial submission of a proposal for Source-Route Multicast for RPL to the IESG draft-ietf-roll-ccast	?
Recharter WG or close	2023

Open Tickets



Open Tickets

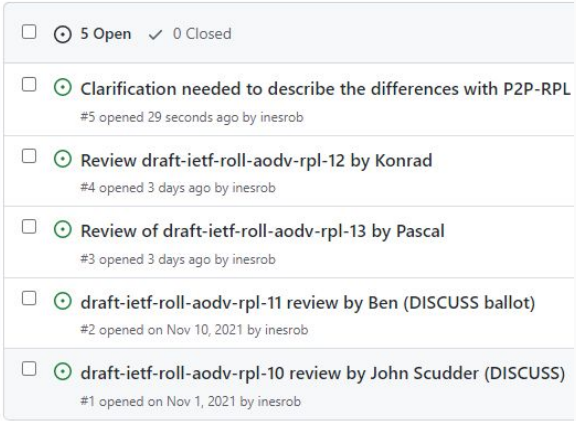




IETF

AODV-RPL: draft-ietf-roll-aodv-rpl-13

- MOP=4 => The Same MOP as RFC6997 (P2P-RPL, Experimental)
- AODV-RPL intended to replace P2P-RPL, going **Standards Track**
- Ben's ballot was DISCUSS, now ABSTAIN.
- Recent reviews by Pascal and Konrad. Huge thanks!
- All documented in tickets on Github
- Level of Interest in the WG to work on this topic?
- One known implementation, last update 2016
  - https://github.com/lavanyahm/AODV_P2P_RPL (2016)



Destination Advertisement Object (DAO) control message of RPL. AODV-RPL uses the "P2P Route Discovery Mode of Operation" (MOP == 4) with three new Options for the DIO message, dedicated to discover P2P routes. These P2P routes may differ from routes discoverable by native RPL. Since AODV-RPL uses newly defined Options, there is no conflict with P2P-RPL [RFC6997], a previous document using the same MOP. AODV-RPL can be operated whether or not P2P-RPL or native RPL is running otherwise. For many networks AODV-RPL could be a