# IETF Hackathon

# IETF 113 19 – 20 March 2022 Vienna





# Welcome back!

• First in-person event since COVID-19?

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- First IETF Hackathon?

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# Why Are We Here

- Advance pace and relevance of IETF standards
  - Bring speed and collaborative spirit of open source community into IETF
  - Flush out ideas, feed into working group sessions
  - Produce sample code, reference implementations, utilities
- Attract developers, new people to IETF
  - Match new, skillful developers with IETF veterans
  - University engagement

### **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 (<u>https://www.ietf.org/contact/ombudsteam/</u>) 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)



# IPR and Code Contribution Guidelines

- Participants can work on any code
- Rules regarding code are per participant's organization and the code's license
- The code itself is NOT an IETF contribution
- Discussions, presentations, and demos in Hackathon are IETF contributions. In this context, Hackathon is like a working group, and the usual IETF copyright and IPR disclosure rules apply

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# **Inclusive Language**

- Contributions to the IETF, including Internet-Drafts and RFCs, are most understandable and effective when they use terminology that is clear, precise, and widely accessible to readers from varying backgrounds and cultures.
- The IESG hence encourages IETF participants to use the guidance in [NISTIR8366] when making contributions to the IETF. Although developed for use within the US National Institute of Standards and Technology (NIST), the IETF community expressed strong support for the sentiment that the guidance on inclusive language in [NISTIR8366] is suitable for the IETF as well [1,2]. Using the same terminology as other standards organizations and industry initiatives also contributes to overall coherence in the industry.
- <u>https://www.ietf.org/about/groups/iesg/statements/on-inclusive-language/</u>

# Projects

- On the Hackathon wiki
- Not sure which project to join?

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#### Projects Included in Hackathon

 Note, all projects are open to everyone. However, some champions have identified their projects as being particularly good for first time IETFers and/or first time hackathoners. These projects are marked with a star, i.e. '\*'. If you are championing a project that is great for newcomers, please add a '\*' at the end of your project name.

#### **GNAP: Grant Negotiation and Authorization Protocol**

- Champion(s)
  - Justin Richer, Aaron Parecki, Fabien Imbault
- Project(s)
  - Build and connect implementations of GNAP across different platforms. We plan to have implementations of the AS, Client, and RS available for people to extend and use, and to deploy against with other components.
  - Interop profile for the hackathon consists of the "redirect" interaction start method, the "redirect" interaction finish method, and key proofing provided by the combination of HTTP Signatures with RSA-PSS-SHA512 and a Content-Digest with SHA-512 hash (for requests with bodies).
  - Other modes (user-code, push) and signature methods (JWS) will be partially supported by some libraries and are encouraged.

#### Resources:

- Implementations and Libraries: ⇒ https://github.com/ietf-wg-gnap/general /wiki/Implementations-and-Libraries
- Hackathon Project Goals: 
   → https://github.com/ietf-wg-gnap/general /wiki/Hackathon-113-Goals

#### Specifications:

- HTTP Message Signatures: 
   ⇒ https://www.ietf.org/archive/id/draft-ietf-httpbismessage-signatures-09.html

#### ANIMA ACP/BRSKI

- · Michael Richardson mcr at sandelman dot ca
  - I will be bringing a number of small systems with ACP/RFC8994 code installed, and would like to work with others online and in person to do ACP stuff.
- Project(s)
  - RFC8994, ANIMAgus-minerva

#### **CoAP Group Communication with Group OSCORE**

- Champion(s)
  - Rikard Höglund <rikard.hoglund at ri.se>
  - Marco Tiloca <marco.tiloca at ri.se>
- Project

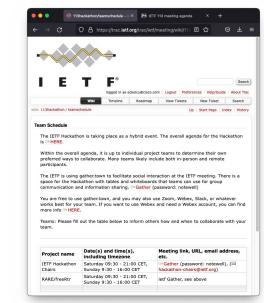
# Projects

- On the Hackathon wiki
- Not sure which project to join?
- Check the Lost & Found

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# Agenda - Saturday

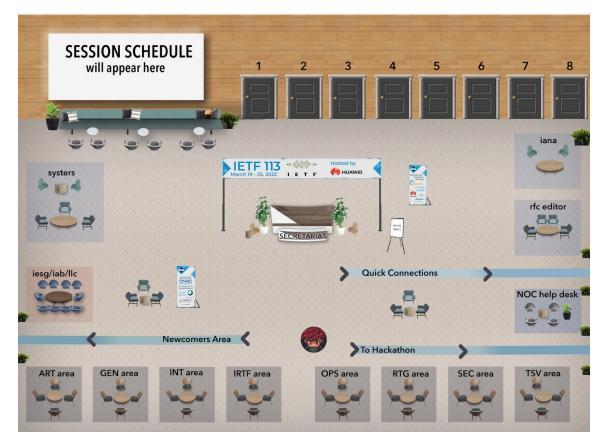
- 09:30: Room open for setup by project champions
- 10:00: Room open for all Pastries and coffee provided
- 10:30: Hackathon kickoff, Meetecho
- 10:45: Form Teams, see Team Schedule
- 12:30: Lunch provided
- 15:30: Afternoon break Snacks provided
- 18:30: Dinner provided
- 21:00: Room closes



# Agenda - Sunday

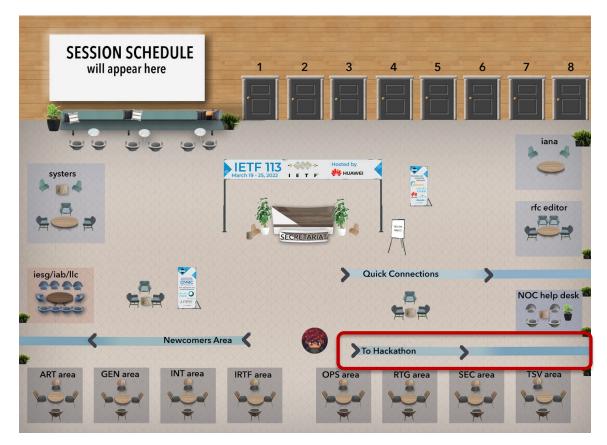
- 09:30: Room opens Pastries and coffee provided
- 12:30: Lunch provided
- 13:30: Hacking stops, prepare brief presentation of project
- 14:00: Project Results Presentations, see schedule, Meetecho
- 16:00: Hackathon ends
- 17:00: Tear down complete

### Gather <a href="https://gather.town/app/L4fNNdm1NJa1sE2v/ietf">https://gather.town/app/L4fNNdm1NJa1sE2v/ietf</a>



**IETF Hackathon** 

### Gather <a href="https://gather.town/app/L4fNNdm1NJa1sE2v/ietf">https://gather.town/app/L4fNNdm1NJa1sE2v/ietf</a>



**IETF Hackathon** 

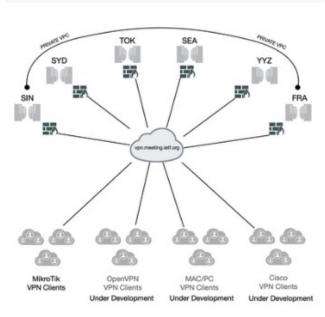
### Hackathon Space



# HackNet (<u>https://hacknet.meeting.ietf.org</u>)

- The NOC team experiment allows you to join the IETF network while attending remotely
- Version 2 is a complete rebuild of the network
  - Auto provisioning of credentials and device configuration
  - MikroTik is the only hardware that is supported
  - More device types to be added
  - Legacy Pi network is still active but will not have future development or support

HackNet VPN Diagram



# **Results Presentations**

- 1. What problem you tried to solve?
- 2. What you achieved?
- 3. Highlights
  - Lessons learned
  - Feedback to working group
  - Open source, other SDOs

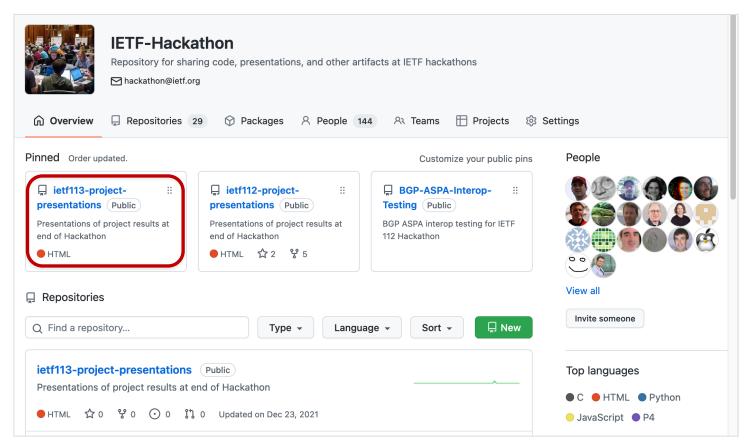
# 5 minutes max



# https://github.com/ietf-hackathon

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# https://github.com/ietf-hackathon



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This repo is for IETF Hackathon participants to upload project presentations. For convenience, presentation templates are provided in PPTX and HTML formats, the latter of which can be viewed online if it is put in the gh-pages branch. For the HTML format, a corresponding pdf is automatically generated from the HTML file by a GitHub action.	Packages No packages published Publish your first package

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# README

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### IETF 113 project presentations

This repo is for IETF Hackathon participants to upload project presentations. For convenience, presentation templates are provided in <u>PPTX</u> and HTML formats, the latter of which can be viewed online if it is put in the gh-pages branch. For the HTML format, a corresponding pdf is automatically generated from the HTML file by a GitHub action.

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The use of these templates is optional. If you do use one of these templates, please rename the file such that it clearly identifies your project, e.g., includes the name or acronym of your project. The contents of this repo will be used as the source for all project presentations at the end of the Hackathon and remain as a reference after the Hackathon. Presenters are encouraged to run their own presentations using the screen sharing functionality in Meetecho. Alternatively, the Hackathon Chairs can share your presentation and advance slides for you. For portability, please upload your presentation in PDF or HTML format.

You MUST be a member of the IETF-Hackathon GitHub org to add or update a presentation.

To be added as a member, please be sure to:

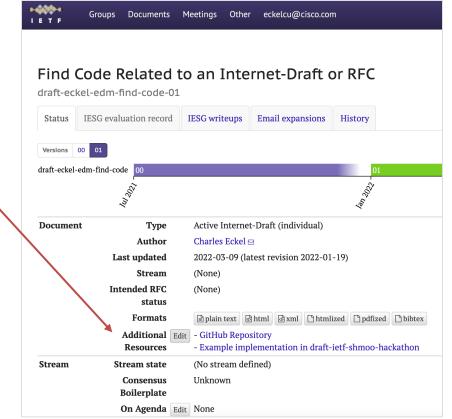
- include the name by which you are known as part of your in your GitHub profile
- enable two factor authentication (2FA)
- send your GitHub user name to hackathon-chairs@ietf.org

DO NOT WAIT until just before project presentations start or your request may be lost in the chaos.

For more info on the Hackathon, including the complete and most up to date agenda, please see the Hackathon Wiki.

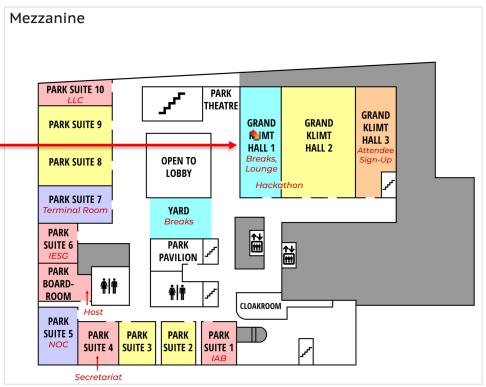
# **Related-implementations**

- For individual drafts, authors can edit the set of "Additional resources".
- For WG drafts and RFCs, the chairs can edit the additional resources



# Hackdemo Happy Hour

- Share hackathon projects with IETF Community
- Grand Klimt Hall 1
- Monday 17:00 18:30
- <u>Register</u> your team
  - MUST REGISTER BY 12:00
     MONDAY



# Code Lounge

- Grand Klimt Hall 1/2
- Space reserved in IETF lounge all week
- Collaborate on running code
- <u>Schedule</u> time for your team



### Mezzanine

# THANK YOU!





# Questions?



**IETF** Hackathon

# Let's Start Coding!

