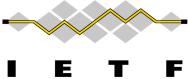


# IETF Hackathon

**IETF 113**  
**19 – 20 March 2022**  
**Vienna**



# Welcome back!

- First in-person event since COVID-19?

# Welcome back!

- First in-person event since COVID-19?
- First IETF Hackathon?

# Welcome back!

- First in-person event since COVID-19?
- First IETF Hackathon?
- First IETF event?

# 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 (<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)



# 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

The screenshot shows a GitHub repository page for 'p4-ipv6-switch-ml'. The repository has 3 stars, 5 forks, and 2 open issues. The 'LICENSE' file is displayed, which is licensed under the Apache License 2.0. The file content includes the Apache License text and sections for Permissions, Limitations, and Conditions.

Permissions	Limitations	Conditions
✓ Commercial use ✓ Modification ✓ Distribution ✓ Patent use ✓ Private use	✗ Trademark use ✗ Liability ✗ Warranty	ⓘ License and copyright notice ⓘ State changes

Below the file content, it says 'This is not legal advice. Learn more about repository licenses.'

Contributor information: eckelcu Initial commit, Latest commit f284ca2 on Jun 14, 2019, History. There is 1 contributor.

```
Apache License
Version 2.0, January 2004
http://www.apache.org/licenses/
TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION
1. Definitions.
"License" shall mean the terms and conditions for use, reproduction,
and distribution as defined by Sections 1 through 9 of this document.
```

# 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.
- <https://www.ietf.org/about/groups/iesg/statements/on-inclusive-language/>

# Projects

- On the [Hackathon wiki](#)
- Not sure which project to join?

The screenshot shows a web browser window with the title "113hackathon - Meeting Wiki". The URL in the address bar is <https://trac.ietf.org/trac/ietf/meeting/wiki/113>. The page content is titled "Projects Included in Hackathon". It contains several sections with bullet points and links to GitHub repositories and IETF documents.

**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:
  - GNAP Core: <https://www.ietf.org/archive/id/draft-ietf-gnap-core-protocol-09.html>
  - HTTP Message Signatures: <https://www.ietf.org/archive/id/draft-ietf-httpbis-message-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.höglund 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](#)

The screenshot shows a web browser window displaying the "113hackathon/lost&found" page on [trac.ietf.org](https://trac.ietf.org/trac/ietf/meeting/wiki/113). The page features the IETF logo at the top. Below it, there's a section titled "Hackathon Lost & Found" with a sub-section "Skills to Offer". This section contains a table with three columns: "Name", "Email Address", and "Skills and/or interests you have to offer". Another section, "Skills Needed", contains a similar table with columns for "Name", "Email Address", and "Skills your team needs". The browser interface includes standard navigation buttons, a search bar, and a menu bar with links like "Logout", "Preferences", "Help/Guide", and "About Trac".

# 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

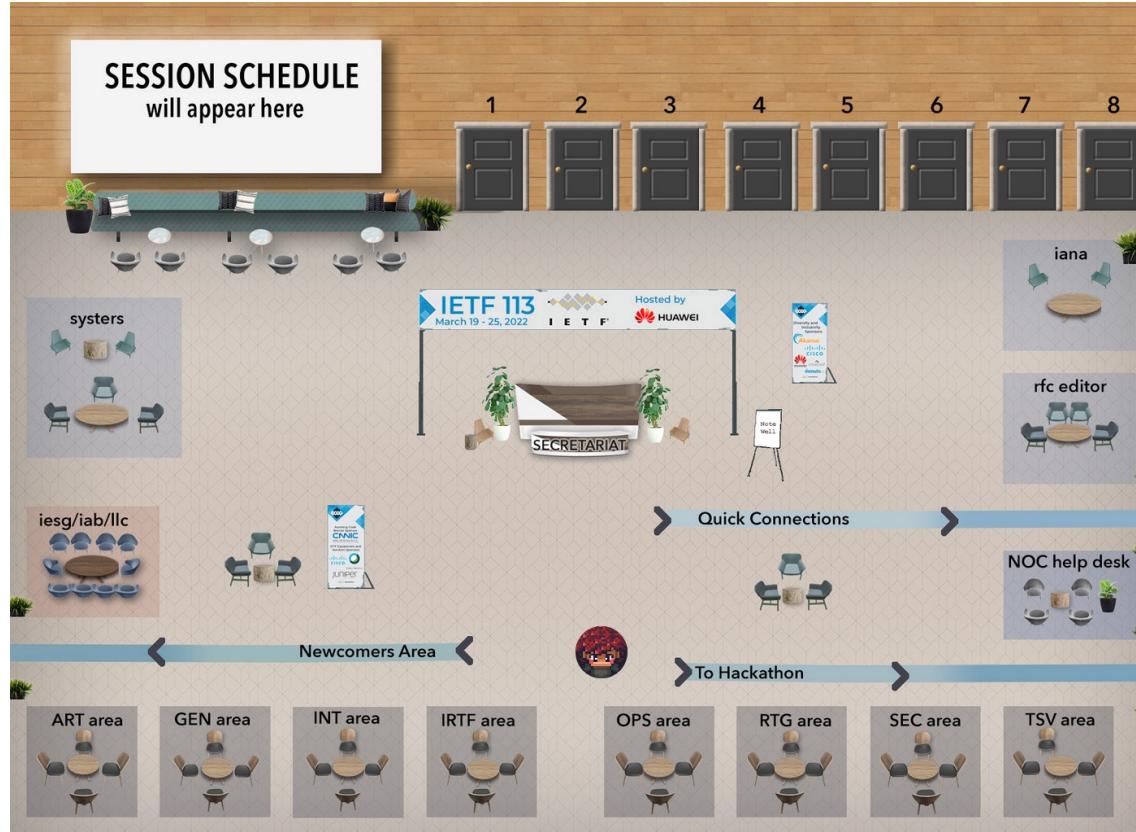
The screenshot shows a web browser displaying the IETF 113 Hackathon team schedule on a Trac instance. The page has a header with the IETF logo and navigation links for Wiki, Timeline, Roadmap, View Tickets, New Ticket, and Search. Below the header is a sub-navigation bar with links for Up, Start Page, Index, and History. The main content area is titled "Team Schedule" and contains a message about the hackathon being a hybrid event and the overall agenda. It also mentions the use of gather.town for social interaction and provides instructions for using Zoom, Webex, or Slack. A table at the bottom lists project names, their dates and times, and their respective meeting links and email addresses.

Project name	Date(s) and time(s), including timezone	Meeting link, URL, email address, etc.
IETF Hackathon Chairs	Saturday 09:30 - 21:00 CET Sunday 9:30 - 16:00 CET	<a href="#">gather.town</a> (password: notewell), ( <a href="mailto:hackathon-chairs@ietf.org">ietf-hackathon-chairs@ietf.org</a> )
RARE/freeRtr	Saturday 09:30 - 21:00 CET Sunday 9:30 - 16:00 CET	ietf Gather, see above

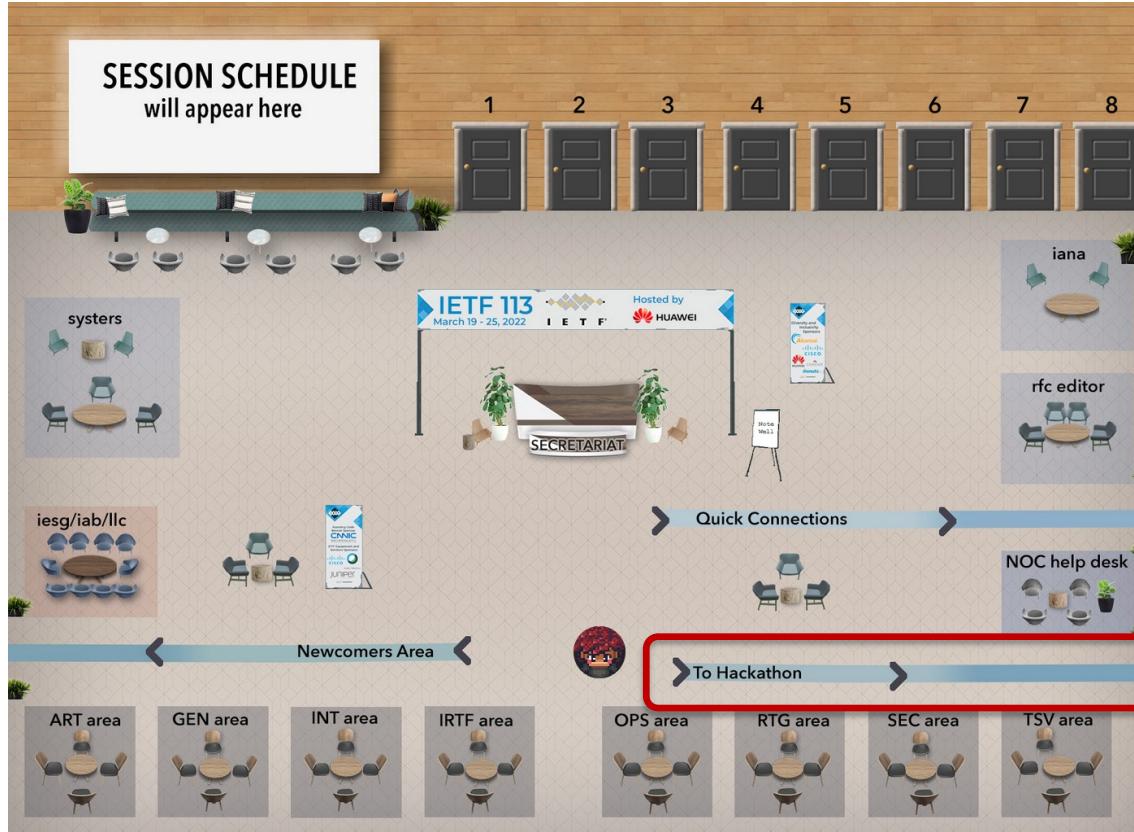
# Agenda - Sunday

- 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

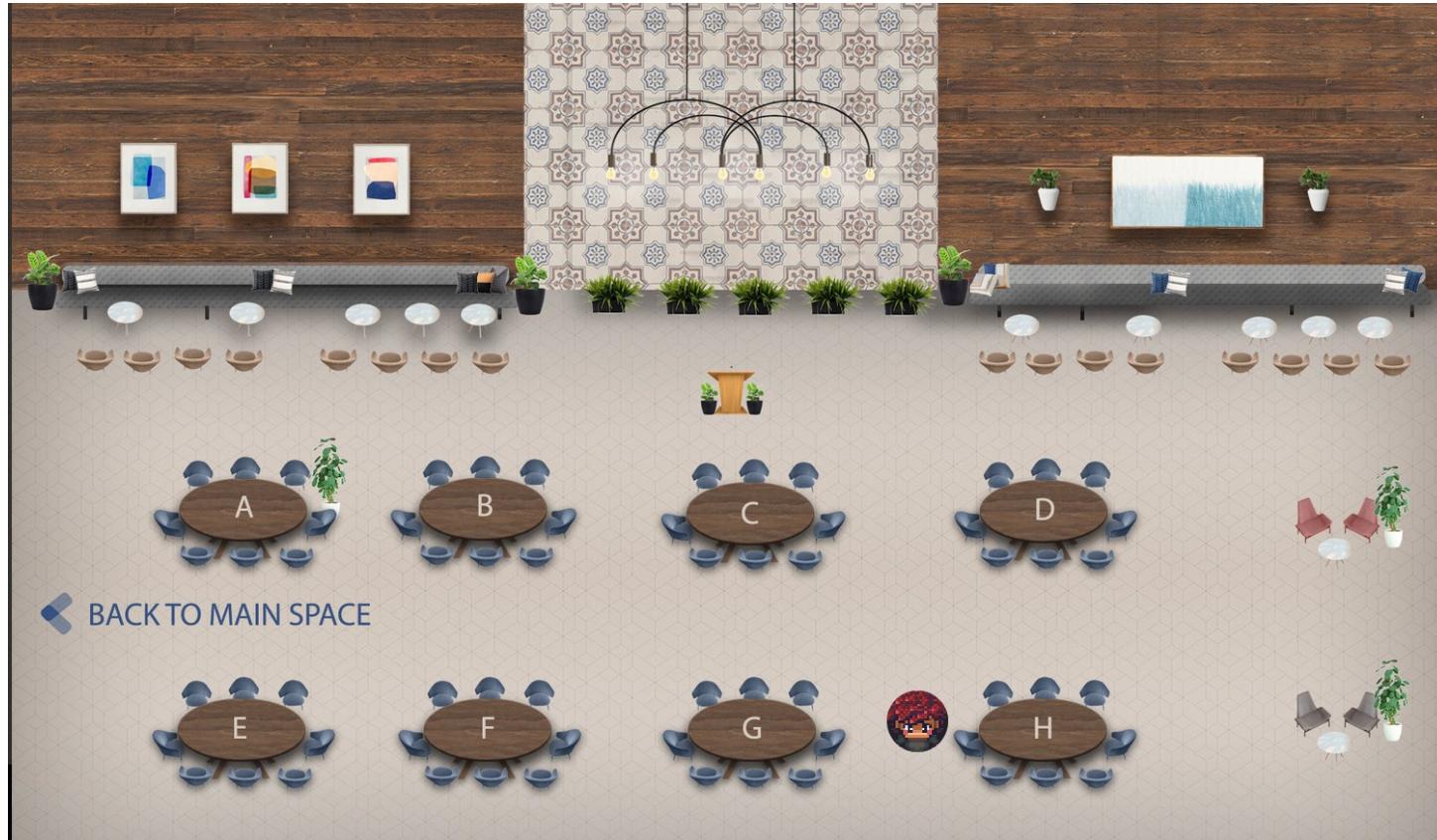
# Gather <https://gather.town/app/L4fNNdm1NJJa1sE2v/ietf>



# Gather <https://gather.town/app/L4fNNdm1NJJa1sE2v/ietf>



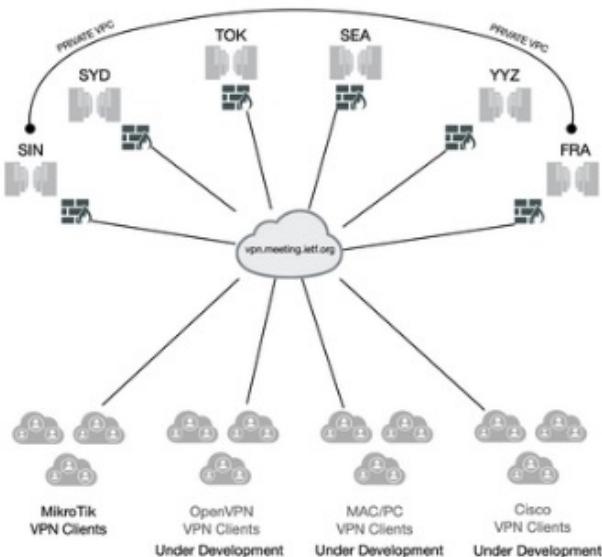
# Hackathon Space



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

- 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>

 **IETF-Hackathon**

Repository for sharing code, presentations, and other artifacts at IETF hackathons

[hackathon@ietf.org](mailto:hackathon@ietf.org)

[Overview](#) [Repositories 29](#) [Packages](#) [People 144](#) [Teams](#) [Projects](#) [Settings](#)

Pinned Order updated.

 [ietf113-project-presentations](#) Public 

Presentations of project results at end of Hackathon

HTML

 [ietf112-project-presentations](#) Public 

Presentations of project results at end of Hackathon

HTML 2 stars 5 forks

 [BGP-ASPA-Interop-Testing](#) Public 

BGP ASPA interop testing for IETF 112 Hackathon

Customize your public pins

**People**



[View all](#)

[Invite someone](#)

 **Repositories**

[Type ▾](#) [Language ▾](#) [Sort ▾](#) [New](#)

 [ietf113-project-presentations](#) Public

Presentations of project results at end of Hackathon

HTML 0 stars 0 forks 0 issues Updated on Dec 23, 2021

**Top languages**

- C
- HTML
- Python
- JavaScript
- P4

<https://github.com/ietf-hackathon>

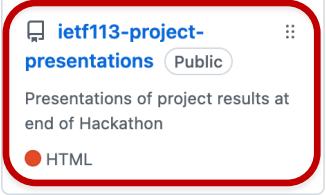
 **IETF-Hackathon**

Repository for sharing code, presentations, and other artifacts at IETF hackathons

✉️ [hackathon@ietf.org](mailto:hackathon@ietf.org)

[Overview](#) [Repositories 29](#) [Packages](#) [People 144](#) [Teams](#) [Projects](#) [Settings](#)

Pinned Order updated.

 [ietf113-project-presentations](#) Public

Presentations of project results at end of Hackathon

HTML

[ietf112-project-presentations](#) Public

Presentations of project results at end of Hackathon

HTML ⭐ 2 ⚡ 5

[BGP-ASPA-Interop-Testing](#) Public

BGP ASPA interop testing for IETF 112 Hackathon

Customize your public pins

**People**



[View all](#)

[Invite someone](#)

**Repositories**

Find a repository... [Type](#) [Language](#) [Sort](#) [New](#)

[ietf113-project-presentations](#) Public

Presentations of project results at end of Hackathon

HTML ⭐ 0 ⚡ 0 ⚪ 0 ⚫ 0 Updated on Dec 23, 2021

**Top languages**

C HTML Python  
JavaScript P4

<https://github.com/IETF-Hackathon/ietf113-project-presentations>

The screenshot shows the GitHub repository page for 'IETF-Hackathon/ietf113-project-presentations'. The repository is public and contains 1 branch and 0 tags. The main commit is by user 'eckelcu' titled 'add templates' with a timestamp of 'c25e108 on Dec 23, 2021'. The repository has 3 commits. The README.md file contains the following content:

```
IETF 113 project presentations

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.
```

The repository has 0 stars, 3 watching, and 0 forks. It also lists sections for About, Releases, and Packages.

<https://github.com/IETF-Hackathon/ietf113-project-presentations>

IETF-Hackathon / ietf113-project-presentations

Public

Code Issues Pull requests Actions Projects Wiki Security Insights

main 1 branch 0 tags Go to file Add file Code

eckelcu add templates c25e108 on Dec 23, 2021 3 commits

README.md Update README.md 3 months ago

hackathon-presentat... add templates 3 months ago

hackathon-presentat... add templates 3 months ago

About

Presentations of project results at end of Hackathon

Readme 0 stars 3 watching 0 forks

README.md

**IETF 113 project presentations**

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](#).

Releases

No releases published [Create a new release](#)

Packages

No packages published [Publish your first package](#)

# README

17 lines (10 sloc) | 2.35 KB

<>  Raw Blame   

## IETF 113 project presentations

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](#).

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:

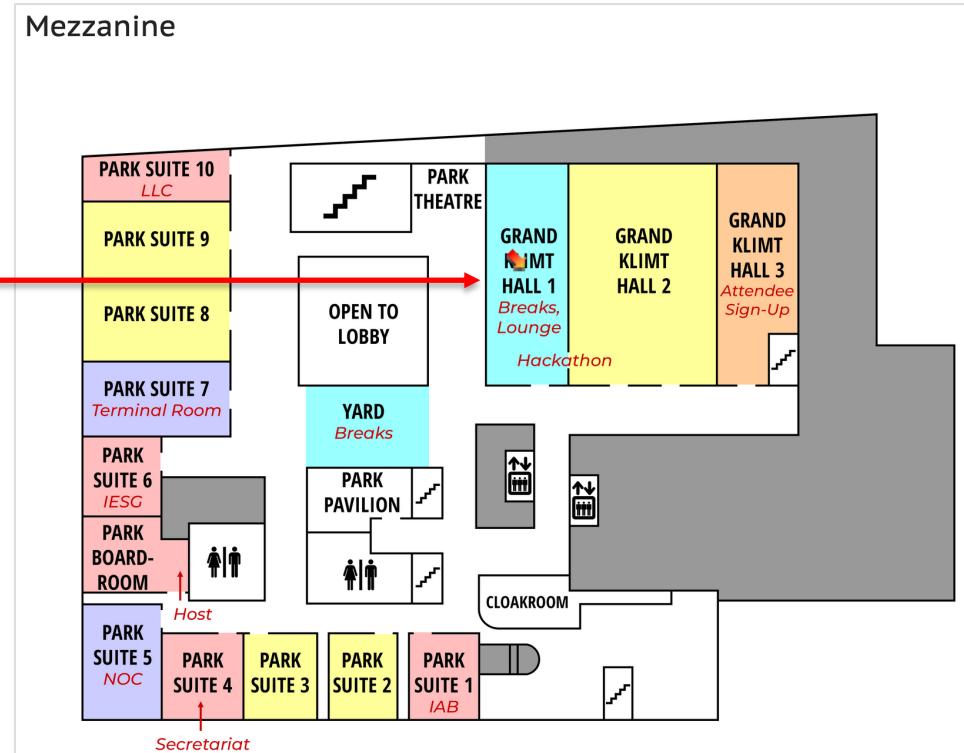
- include the [name](#) by which you are known as part of your in your GitHub profile
- enable two factor authentication ([2FA](#))
- send your GitHub user name to [hackathon-chairs@ietf.org](mailto:hackathon-chairs@ietf.org)

**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](#).

# Hackdemo Happy Hour

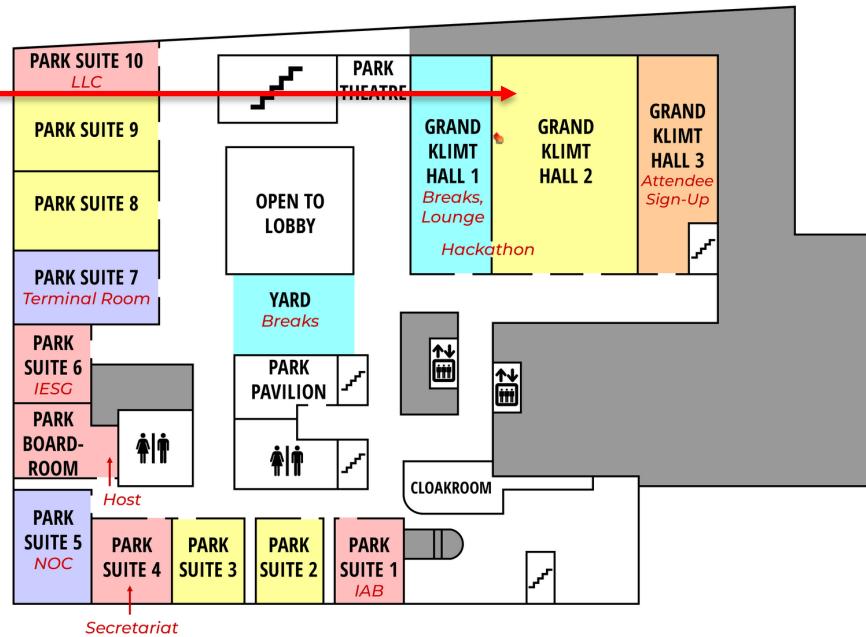
- Share hackathon projects with IETF Community
- [Grand Klimt Hall 1](#)
- Monday 17:00 - 18:30
- [Register](#) your team
  - MUST REGISTER BY 12:00 MONDAY



# Code Lounge

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

Mezzanine



THANK  
YOU!



# Questions?



# Let's Start Coding!

