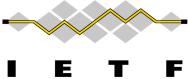


# IETF Hackathon

**IETF 110**  
**1-5 March 2021**  
**Online**



# Welcome!



# Gather password: notinprague



# 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 around hackathon projects

# 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.

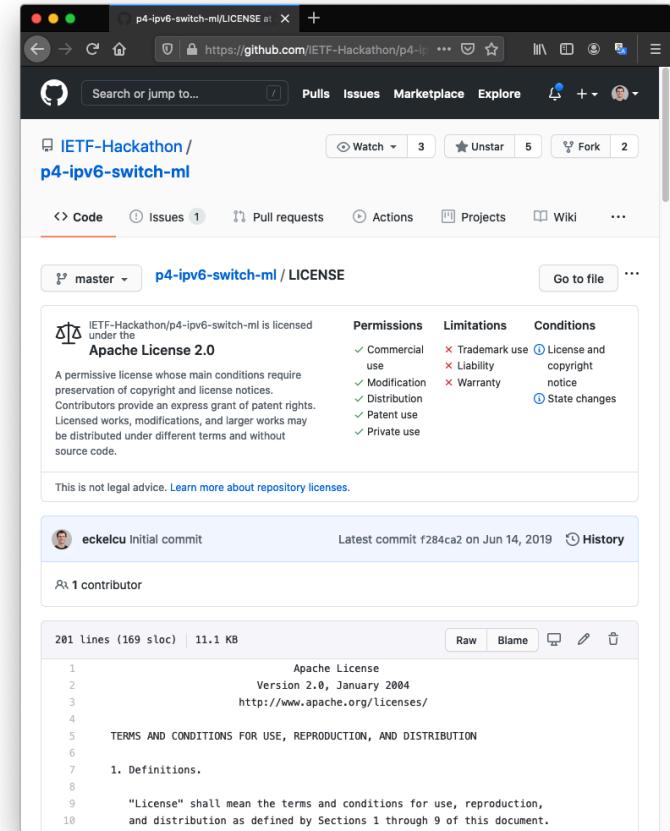
Definitive information is in the documents listed below and other IETF BCPs. For advice, please talk to WG chairs or ADs:

- 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, similar to if done in a working group; therefore, the usual IETF copyright and/or IPR disclosure rules apply



The screenshot shows a GitHub repository page for 'p4-ipv6-switch-ml' under the 'IETF-Hackathon' organization. The 'LICENSE' file is displayed, which is licensed under the Apache License 2.0. The page includes sections for Permissions, Limitations, and Conditions, along with a note that it is not legal advice. The commit history shows an initial commit by 'eckelcu' on Jun 14, 2019.

```
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.
```

# Projects

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

Projects Included in Hackathon (add your project using the template provided at end of project list)

- 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.

**P4**

- Champion(s)
  - Hemant Singh ([hemantr@mnkcg.com](mailto:hemantr@mnkcg.com))
- Project(s)
  - P4 to VPP
    - Bring your P4-16 programs and I will use a proprietary compiler from MNK Labs to convert P4 to a VPP plugin.

**BMWG - YANG model and implementation of Network Interconnect Tester**

- Champion(s)
  - Vladimir Vassilev ([vladimir@lightside-instruments.com](mailto:vladimir@lightside-instruments.com))
- Project(s)
  - Model and implementation of YANG/NETCONF managed [RFC2544](#) capable Network Interconnect Tester
- Specifications:
  - <https://tools.ietf.org/html/draft-vassilev-bmwg-network-interconnect-tester>
- Repositories
  - Scripting - [YANG/NETCONF benchmark orchestration code](#)
  - Software - [YANG/NETCONF device side code](#)
  - Firmware - [HDL](#)
  - Hardware - [board design](#)

**Network Telemetry with BGP Monitoring Protocol (BMP) and YANG Push**

- Champion(s)
  - Yunan Gu ([guyunan@huawei.com](mailto:guyunan@huawei.com)), Paolo Lucente ([paoletti@ntt.net](mailto:paoletti@ntt.net)), Pierre Francois ([pierre.francois@insa-lyon.fr](mailto:pierre.francois@insa-lyon.fr)), Thomas Graf ([thomas.graf@swisscom.com](mailto:thomas.graf@swisscom.com)), Tianran Zhou ([zhoutianran@huawei.com](mailto:zhoutianran@huawei.com)), Guangyong Zheng ([zhengguangyong@huawei.com](mailto:zhengguangyong@huawei.com)), Yi Qin ([qinyi@huawei.com](mailto:qinyi@huawei.com)), Zhiguo Zhu ([zhuzhiguo@huawei.com](mailto:zhuzhiguo@huawei.com))
- YANG Push RFC and Draft(s)
  - UDP-based Transport for Configured Subscriptions (<https://tools.ietf.org/html/draft-ietf-netconf-udp-notif>)
  - Subscription to Distributed Notifications (<https://tools.ietf.org/html/draft-ietf-netconf-distributed-notif>)
- YANG Project(s)
  - Improve YANG push data-collection by preserving end to end YANG schema and enable publishing directly from line card processors.
  - Development of an open-source example YANG push UDP publisher.
  - Development of an open-source YANG push UDP receiver with Apache Kafka JSON schema registry integration.
  - Perform interoperability tests.
- BMP RFC and Draft(s)
  - [RFC 7854](#) (<https://tools.ietf.org/html/rfc7854>)
  - [RFC 8671](#) (<https://tools.ietf.org/html/rfc8671>)
  - Support for Local RIB (<https://tools.ietf.org/html/draft-ietf-grow-bmp-local-rib>)
  - TLV support for BMP Router Monitoring and Peer Down Messages (<https://tools.ietf.org/html/draft-lucente-bmp-tlv>)
  - BMP Extension for Path Marking TLV (<https://tools.ietf.org/html/draft-cppp-grow-bmp-path-marking-tlv>)
  - BGP Route Policy and Attribute Trace (<https://tools.ietf.org/html/draft-xu-grow-bmp-route-policy-attr-trace>)
- BMP Project(s)
  - Bringing visibility into BGP control-plane and how it's being used in the forwarding plane.
  - Extend existing BMP capabilities with new RIB's, message types and TLV's at router and data collection.
  - Enable BMP BGP Local-RIB control-plane to IPFIX forwarding-plane metric correlation.
  - Perform interoperability and loss/delay tests.

# Projects

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

The screenshot shows a web browser window displaying a Trac-based wiki page. The header features the IETF logo (a stylized yellow zigzag line) and the text "I E T F®". The top navigation bar includes links for "Wiki", "Timeline", "Roadmap", "View Tickets", "New Ticket", and "Search". The URL in the address bar is <https://trac.ietf.org/trac/ietf/meeting/wiki/110hackathon/lost&found>. A user is logged in as "eckelcu@cisco.com".

**Hackathon Lost & Found**

Are you a hackathon participant looking for a team to join?  
Are you championing a hackathon project and in need of some specific expertise?  
If you answered yes to either of these, you have come to the right place.

Participants looking for a team are encouraged to add themselves to the "Skills to Offer" table, providing some information about their skills and interests. This will help others with matching needs and/or interests find you.

Champions wanting help on their projects are encouraged to add themselves to the "Skills Needed" table, providing some information about the skills they seek.

**Skills to Offer**

Name	Email Address	Skills and/or interests you have to offer

**Skills Needed**

Name	Email Address	Skills your team needs

To edit the wiki, log in using your IETF datatracker login credentials. If you don't yet have an IETF datatracker account, you may get one by going here → <https://datatracker.ietf.org/accounts/create/> and requesting a new account.

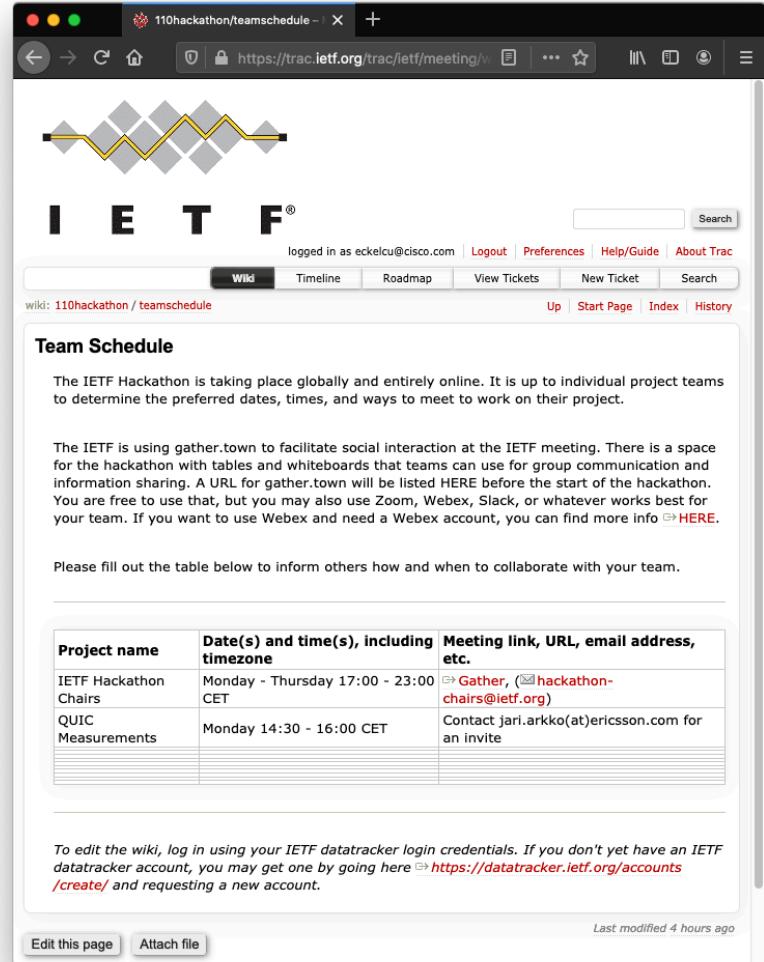
Edit this page | Attach file | Last modified 3 months ago

Download in other formats:  
Plain Text

Visit the Trac open source project at <http://trac.edgewall.org/>

# Agenda

- Monday, 1 March 2021
  - Hackathon Kickoff - 17:00 - 19:00 CET (16:00 - 18:00 UTC) [Meetecho](#)
- Monday, 1 March - Friday, 5 March
  - Teams work on projects, see [Team Schedule](#)
- Friday, 5 March 2021
  - Hackathon Closing - 17:00 - 19:00 CET (16:00 - 18:00 UTC) [Meetecho](#)



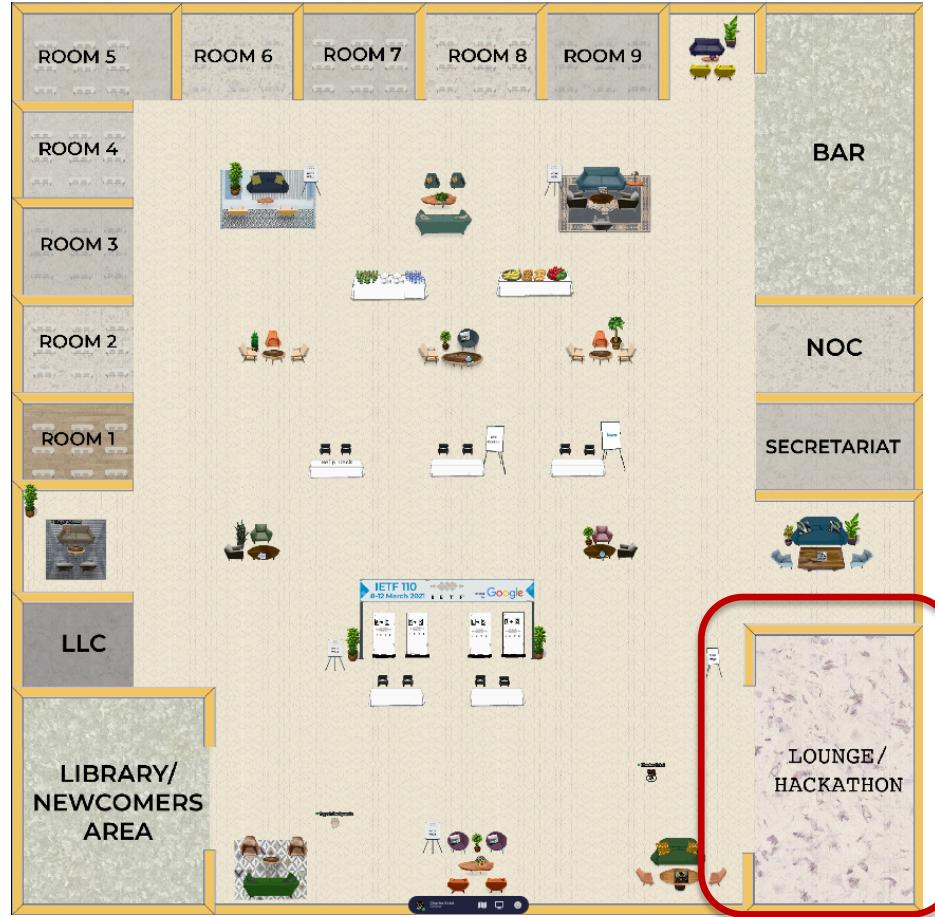
The screenshot shows a web browser window for the IETF Trac system at the URL <https://trac.ietf.org/trac/ietf/meeting/110hackathon/teamschedule>. The page features the IETF logo and navigation links for Wiki, Timeline, Roadmap, View Tickets, New Ticket, and Search. The main content area is titled "Team Schedule" and contains a note about the hackathon being global and online, with teams determining their own schedules. It explains the use of gather.town for social interaction and provides a table for teams to list their project details, meeting times, and contact information. A note at the bottom encourages users to log in with their IETF datatracker credentials if they don't have a Trac account.

Project name	Date(s) and time(s), including timezone	Meeting link, URL, email address, etc.
IETF Hackathon Chairs	Monday - Thursday 17:00 - 23:00 CET	<a href="#">Gather</a> , ( <a href="mailto:hackathon-chairs@ietf.org">hackathon-chairs@ietf.org</a> )
QUIC Measurements	Monday 14:30 - 16:00 CET	Contact <a href="mailto:jari.arkko@ericsson.com">jari.arkko@ericsson.com</a> for an invite

To edit the wiki, log in using your IETF datatracker login credentials. If you don't yet have an IETF datatracker account, you may get one by going here <https://datatracker.ietf.org/accounts/create> and requesting a new account.

[Edit this page](#) [Attach file](#) Last modified 4 hours ago

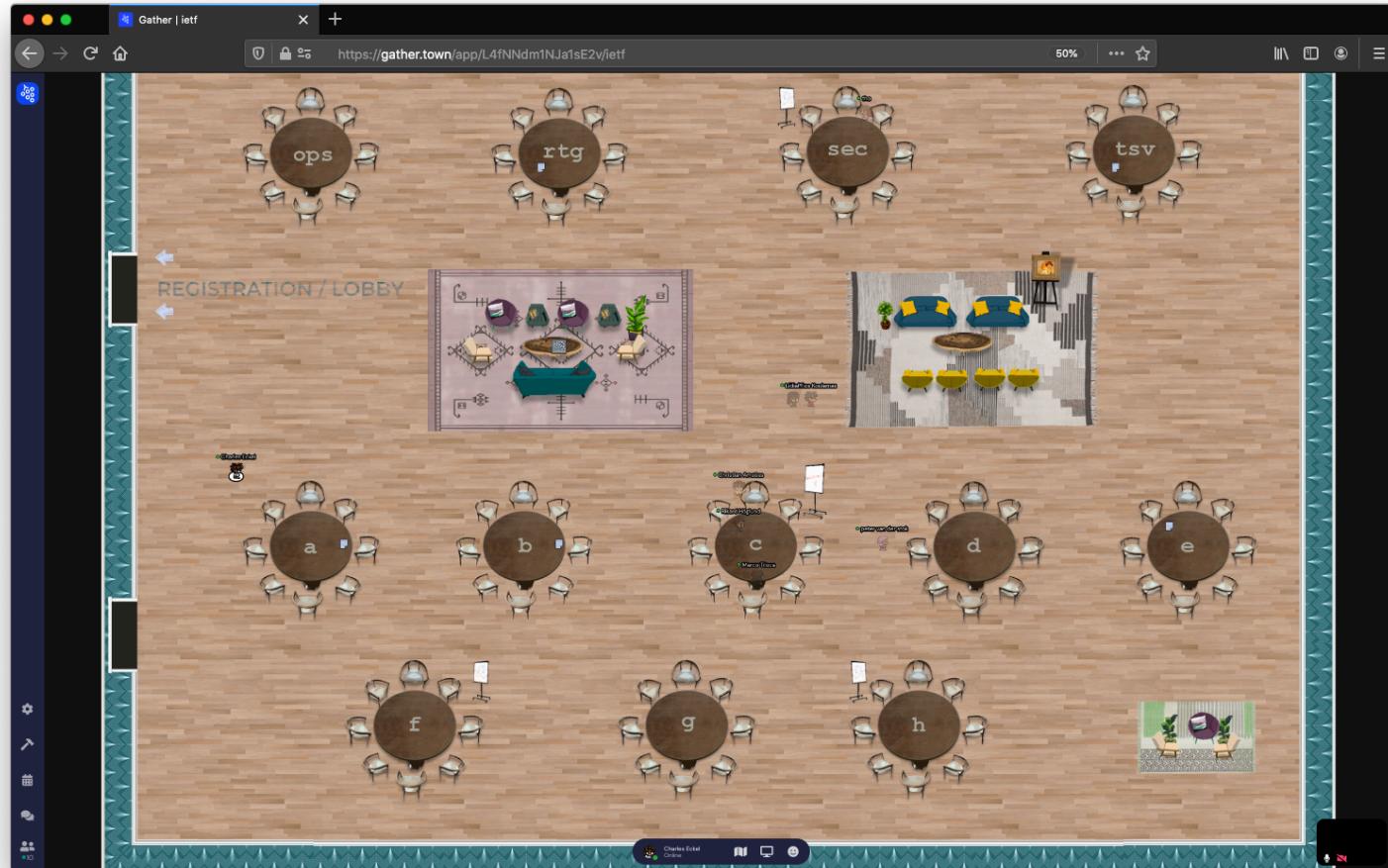
Gather <https://ietf.gather.town/app/L4fNNdm1NJJa1sE2v/ietf>



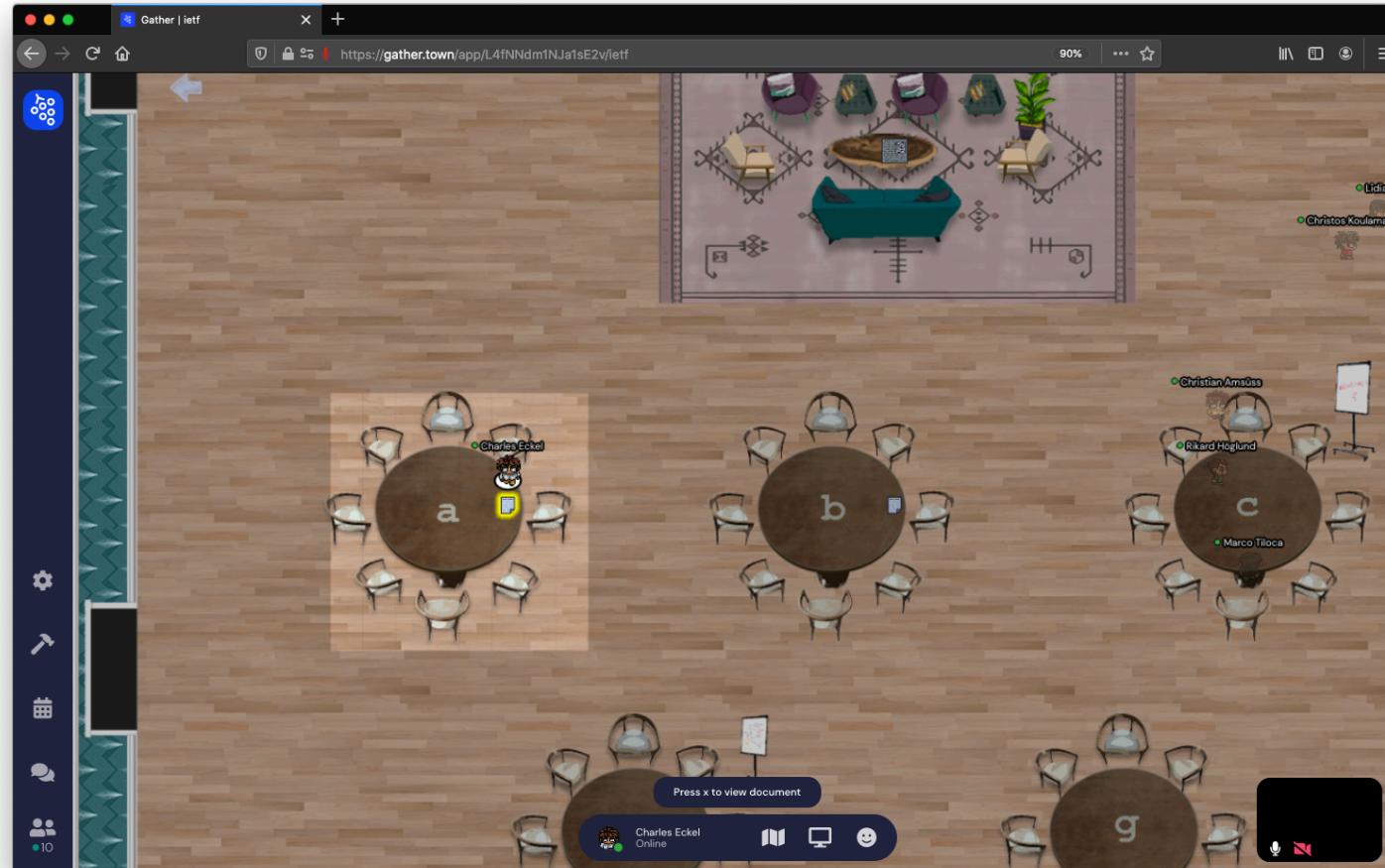
# Hackathon Space



# Hackathon Tables



# Shared Documents via CodiMD and Whiteboards



# Gather guidelines

The screenshot shows a web browser window for the "110hackathon - Meeting Wiki" page at <https://trac.ietf.org/trac/ietf/meeting/wiki/110hackathon>. The page features the IETF logo and navigation links for Wiki, Timeline, Roadmap, View Tickets, New Ticket, and Search. It also shows a search bar and links for Start Page, Index, and History. The main content area is titled "IETF 110 Hackathon" and contains information about the hackathon, including details about when and where it is held, how to sign up, and links for attendees and participants. A note at the bottom encourages subscribing to the mailing list.

IETF 110 Hackathon

The Internet Engineering Task Force (IETF) is holding a hackathon to encourage developers and subject matter experts to discuss, collaborate, and develop utilities, ideas, sample code, and solutions that show practical implementations of IETF standards.

**When:** Monday, 1 March through Friday, 5 March, 2021

**Where:** [IETF 110](#) is an online only meeting and so is the hackathon.

**Sign up for the hackathon:** [Here](#)

**View the list of registered hackathon attendees:** [Attendee List](#)

**IETF 110 Gather link:** [Here](#)

**Guide for IETF 110 Participants:** [Here](#)

Keep up to date by subscribing to <https://www.ietf.org/mailman/listinfo/hackathon>

The IETF Hackathon is free to attend and is open to everyone. It is a collaborative event, not a competition. Any competition is friendly and in the spirit of advancing the pace and relevance of new and evolving internet standards.

# Network Requests

- The NOC team has been working on an experiment that allows you to join the IETF network while attending the meeting remotely
- Unfortunately, we ran into issues and are not able to offer this capability at this time
- We are not abandoning the idea and hope to be able to offer it in a more stable fashion in the future
- For those of you who were counting on this capability for the IETF 110 Hackathon, please accept our apologies
- We appreciate your patience and understanding

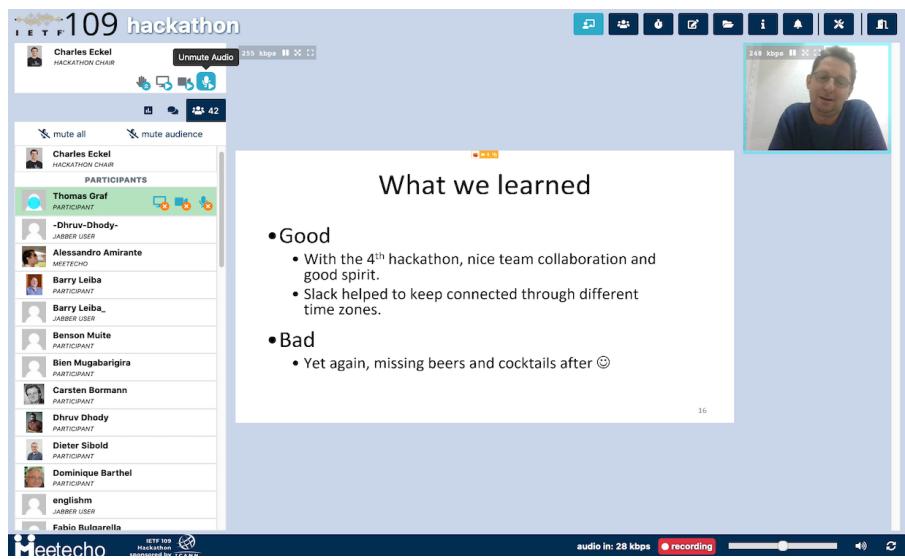


# Project Presentations

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>

The screenshot shows the GitHub repository page for "IETF-Hackathon". The repository banner features a photo of people at a hackathon. The repository name is "IETF-Hackathon" and its description is "Repository for sharing code, presentations, and other artifacts at IETF hackathons". The email address "hackathon@ietf.org" is listed below the description. The repository has 25 repositories, 129 people, and no teams. It includes sections for "Top languages" (C, Python, HTML, Shell, P4) and "People" (129). The main content area lists three repositories: "ietf110-project-presentations", "ietf109-project-presentations", and "NSDCatZ".

**IETF-Hackathon**  
Repository for sharing code, presentations, and other artifacts at IETF hackathons  
hackathon@ietf.org

Repositories 25 Packages People 129 Teams Projects Settings

Find a repository... Type: All Language: All Customize pins New

**ietf110-project-presentations**  
Presentations of project results at end of hackathon  
HTML 0 ⭐ 1 ⓘ 0 Updated 6 days ago

**ietf109-project-presentations**  
Presentations of project results at end of hackathon  
HTML 1 ⭐ 3 ⓘ 1 Updated on Nov 19, 2020

**NSDCatZ**  
Proof of concept NSD implementation of draft-ietf-dnsop-dns-catalog-zones  
Python 0 ⭐ 1 ⓘ 0 Updated on Nov 19, 2020

Top languages

- C
- Python
- HTML
- Shell
- P4

People 129 >

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

The screenshot shows the GitHub repository page for "IETF-Hackathon". The page includes a search bar, navigation links for Pull requests, Issues, Marketplace, and Explore, and a user profile icon. The main content area displays three repositories: "ietf110-project-presentations", "ietf109-project-presentations", and "NSDCatZ". The first repository is highlighted with a red box. The right sidebar shows top languages (C, Python, HTML, Shell, P4) and a grid of user profiles.

**IETF-Hackathon**  
Repository for sharing code, presentations, and other artifacts at IETF hackathons  
hackathon@ietf.org

Repositories 25 Packages People 129 Teams Projects Settings

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**ietf109-project-presentations**  
Presentations of project results at end of hackathon  
1 ⭐ 3 1 0 Updated on Nov 19, 2020

**NSDCatZ**  
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Python 0 ⭐ 1 0 0 Updated on Nov 19, 2020

Top languages

- C
- Python
- HTML
- Shell
- P4

People 129 >



eckelcu Update README.md

Latest commit f2e27ae 2 minutes ago

History

1 contributor

15 lines (9 sloc) | 1.77 KB

Raw Blame



## IETF 110 project presentations

This repo is for IETF Hackathon participants to upload their project presentations. For your convenience, presentation templates are provided in [PPTX](#) and [HTML](#) formats. Use of these templates is optional. 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 upload a new presentation or update/replace an existing 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)

Please do this at your earliest convenience. **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](#).



eckelcu Update README.md

Latest commit f2e27ae 2 minutes ago

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Search or jump to...

Pull requests Issues Marketplace Explore



## IETF-Hackathon / ietf110-project-presentations

Watch 1

Star 1

Fork 0

Code

Issues

Pull requests

Actions

Projects

Wiki

Security

Insights

Settings

main

1 branch 0 tags

Go to file

Add file

Code

### About

Presentations of project results at end of hackathon

Readme

### Releases

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

### Packages

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

### Languages

HTML 100.0%

eckelcu Update README.md

f2e27ae 9 minutes ago 6 commits

README.md

Update README.md

9 minutes ago

hackathon-presentation-template.... add html template

6 days ago

hackathon-presentation-template.... add pptx template

6 days ago

README.md

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**THANK  
YOU!**



# Questions?



# Let's Start Coding!

