



Park Suite 8

IETF New Participant Program

Session 4: IETF Hackathon



I E T F[®]

Making the Internet work better

Welcome to the IETF New Participant Program!

Program agenda

1. Introduction to the IETF
 - About; Participants; Structure; Funding; Governance; Policies
2. Participating in the IETF
 - Mailing lists; Datatracker; IETF Meetings
3. Standards development
 - Areas; Working Groups; WG process; IESG process; Bringing new work
4. IETF Hackathon (**this session**)
 - Running code
5. Internet-Drafts and RFCs
 - Formats; Statuses; Streams; Structure; Content guidelines; Tools; Submitting; AUTH48
6. The Power of the Community
 - Community selects the leadership, Community Self Regulation, Disputes and Appeals
7. Summary and Wrap-up

Your presenter for this session

Stuart Cheshire



Stuart Cheshire has been participating in IETF Hackathons since IETF 94 in Yokohama, November 2015.

Stuart Cheshire received B.A. and M.A. degrees from Sidney Sussex College, Cambridge, and M.Sc. and Ph.D. from Stanford University. Stuart served on the Internet Architecture Board (IAB), and was co-chair of the IETF Zeroconf Working Group. Stuart has published numerous research papers and RFCs, and is the author of the O'Reilly book Zero Configuration Networking. During his time as a student at Stanford, Stuart created Bolo, the first distributed multi-player game on the Internet. Stuart is currently a Distinguished Engineer at Apple.

Hackathon Chairs

Charles Eckel, Benno Overeinder and Barry Leiba



A member of Cisco's Global Technology Standards team, Charles identifies and guides open source efforts related to key standards initiatives. In IETF, he started IETF Hackathons and serves as IETF liaison manager to 3GPP. Charles is deeply involved in multiple open source projects.



Benno is managing director at NLnet Labs, a non-profit research lab whose mission is to build a bridge between academic results and practical deployment of new technology in our networks. A research engineer, Benno works on DNS, inter-domain routing, routing control plane, IPv6 deployment, and Internet measurements at large.



Barry Leiba is a Director of Internet Standards at Futurewei Technologies. He works on email and related technology and focuses on the "Internet of Things", messaging and collaboration on mobile platforms, security and privacy of Internet applications, and Internet standards development and deployment. Barry has been active in the IETF since the mid 1990s and has chaired many working groups in the Applications and Security Areas. He has served on the Internet Engineering Steering Group (IESG) and on the Internet Architecture Board (IAB). He is Associate Editor-in-Chief of IEEE Internet Computing magazine, in charge of departments and columns, including the "Standards" department. He is a member of the Internet Society Board of Trustees.

IETF Note Well

By participating in the IETF you agree to follow IETF processes and policies. This Note Well is a reminder of some of those policies. For a linked version of this text, please visit www.ietf.org/note-well or use the QR code below.

- IETF participants are expected to behave in a professional manner and extend respect and courtesy to their colleagues at all times (see *RFC 7154: IETF Guidelines for Conduct and IETF Anti-Harassment Policy*). If you have any concerns about behavior, please contact the *Ombudsteam* who have a duty of confidentiality and extensive powers to act, as set out in *RFC 7776: IETF Anti-Harassment Procedures*.
- If you are aware that any IETF contribution (as defined in *RFC 5378: Rights Contributors Provide to the IETF Trust*) is covered by patents or patent applications that are owned or controlled by you, your employer or your sponsor, you must disclose that fact, or not participate in the discussion (see *RFC 8179: Intellectual Property Rights in IETF Technology*).
- For detailed process information consult *RFC 2026: Internet Standards Process* and *RFC 2418: IETF Working Group Guidelines and Procedures* and updates to those.
- The IETF routinely makes public written, audio, video, and photographic records of IETF activities, including your personal information as set out in the *IETF Privacy Statement*.

For advice, please talk to Working Group chairs or Area Directors.



Running Code

Running code is a key part of the IETF process:

- IETF Participants are encouraged to develop implementations before, during and after the IETF standardization process.
- Some Working Groups require two independent implementations of a proposed standard before it progresses.
 - Used to be a more general requirement
- Internet-Drafts can include an 'Implementation Status' section to record the status of known implementations.

The IETF also encourages participants to contribute to its own tools, all of which are open source and openly developed.

The IETF Hackathon

This is the key activity for IETF participants to collaboratively develop utilities, sample code and full implementations of IETF standards.

Aims:

- Advance the pace and relevance of IETF standards activities by bringing the speed and collaborative spirit of open source development into the IETF
- Bring developers and young people into IETF and get them exposed to and interested in IETF



How it works

Collaborative event, not a competition

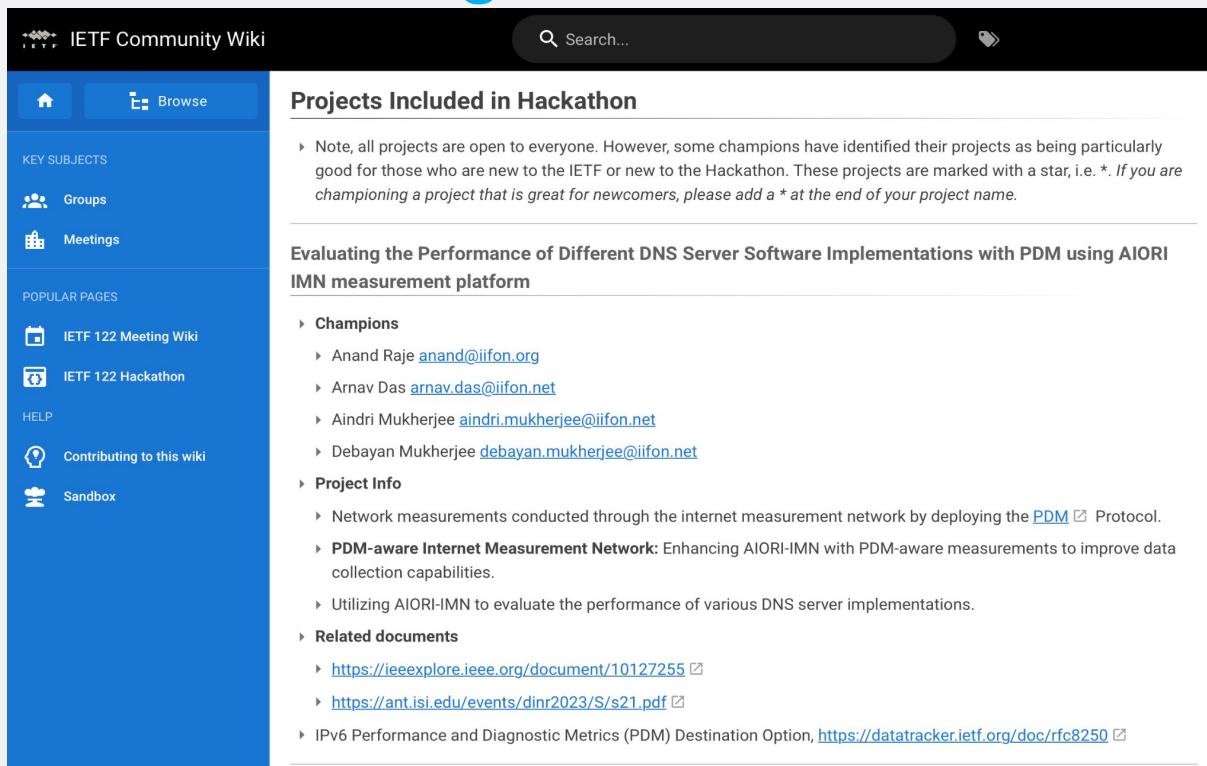
- Two day event - Saturday and Sunday before the every IETF Meeting
- Free to participate
- Around 300 participants working on approximately 40-50 different projects
- Hackdemo Happy Hour on Monday evening for an opportunity to share the results with the rest of the IETF meeting participants.

All the information about the Hackathon can be found on the wiki

- All projects are open to everyone
- Each project has a “champion” who is the lead for individual projects
- Some champions have identified their project as being good for those who are new to the IETF or new to the Hackathon (See projects marked with a *)

Hackathon wiki

Section on wiki.ietf.org



The screenshot shows the IETF Community Wiki interface. The top navigation bar includes a search bar and a 'Browse' button. The left sidebar contains links for 'KEY SUBJECTS' (Groups, Meetings), 'POPULAR PAGES' (IETF 122 Meeting Wiki, IETF 122 Hackathon), and 'HELP' (Contributing to this wiki, Sandbox). The main content area is titled 'Projects Included in Hackathon' and contains a note about project eligibility, a section for 'Evaluating the Performance of Different DNS Server Software Implementations with PDM using AIORI IMN measurement platform', and a list of champions and project information.

IETF Community Wiki

Search...

Browse

KEY SUBJECTS

- Groups
- Meetings

POPULAR PAGES

- IETF 122 Meeting Wiki
- IETF 122 Hackathon

HELP

- Contributing to this wiki
- Sandbox

Projects Included in Hackathon

► Note, all projects are open to everyone. However, some champions have identified their projects as being particularly good for those who are new to the IETF or new to the Hackathon. 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.*

Evaluating the Performance of Different DNS Server Software Implementations with PDM using AIORI IMN measurement platform

► **Champions**

- Anand Raje anand@iifon.org
- Arnav Das arnav.das@iifon.net
- Aindri Mukherjee aindri.mukherjee@iifon.net
- Debayan Mukherjee debayan.mukherjee@iifon.net

► **Project Info**

- Network measurements conducted through the internet measurement network by deploying the [PDM](#) Protocol.
- **PDM-aware Internet Measurement Network:** Enhancing AIORI-IMN with PDM-aware measurements to improve data collection capabilities.
- Utilizing AIORI-IMN to evaluate the performance of various DNS server implementations.

► **Related documents**

- <https://ieeexplore.ieee.org/document/10127255>
- <https://ant.isi.edu/events/dinr2023/S/s21.pdf>
- IPv6 Performance and Diagnostic Metrics (PDM) Destination Option, <https://datatracker.ietf.org/doc/rfc8250>

Hackathon

White board
with project
names and
table locations



Questions?

Thank you for attending this session

**Please fill out the post-program survey that will be
emailed to you**