

# Internet Engineering Task Force Newcomers' Overview

July 2020



Welcome to the IETF!

# IETF Note Well

<https://www.ietf.org/about/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.

# IETF Note Well (cont.)

<https://www.ietf.org/about/note-well/>

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)
- [Privacy Policy](#)

# Newcomer Activities @ IETF 108

<https://www.ietf.org/how/meetings/108/newcomers>

- Newcomer's tutorial webinars (time and dates)
  - Tuesday, 7 July at 14:00 UTC
  - Thursday, 9 July at 11:00 UTC
- IETF Virtual Quick Connections
  - Thursday, 23 July at 15:00 UTC
- Newcomer Coffee Breaks
  - Scheduled a couple of time during IETF 108 week (TBA)
- IETF Guides Mentoring (sign ups ongoing now)

# Scope: Preparing for an IETF Meeting

<https://www.ietf.org/about/participate/>

This presentation includes:

- Information immediately useful to you as you attend your first(ish) IETF meetings
- Strategies to make the most of the meeting (whether in person or remote)

This presentation does **not** include information about:

- The history of the IETF; How to write a “standard”; and many other things...

The IETF YouTube channel has [a playlist with information about all these topics](#) (and more)

# The IETF and Related Organizations

# IETF Mission

<https://www.ietf.org/about/mission/>

The mission of the IETF is to make the Internet work better by producing high quality, relevant technical documents that influence the way people design, use, and manage the Internet.

[[RFC 3935](#)]





# The IETF is ...

- A Standards Development Organization (SDO)
- With self-selected individual participants, no formal membership
- No formal voting (but we do hum...)
- No formal government role
- Driven by market-based adoption (a *real* standard is one people use)
- Focused on Internet technologies
- Bottom-up... and unique!

# IETF Areas

Applications and Real-Time (ART)	<ul style="list-style-type: none"><li>• Application protocols and architectures</li><li>• Real-time (communication) and non-real-time</li></ul>
Transport (TSV)	<ul style="list-style-type: none"><li>• Mechanisms related to data transport on the Internet<ul style="list-style-type: none"><li>- Includes congestion control</li></ul></li></ul>
Routing (RTG)	<ul style="list-style-type: none"><li>• Routing and signaling protocols</li></ul>
Internet (INT)	<ul style="list-style-type: none"><li>• IPv4/IPv6, DNS, DHCP, mobility</li></ul>
Operations and Management (OPS)	<ul style="list-style-type: none"><li>• Network management</li><li>• Operations: IPv6, DNS, security, routing</li></ul>
Security (SEC)	<ul style="list-style-type: none"><li>• Security protocols and mechanisms</li></ul>
General (GEN)	<ul style="list-style-type: none"><li>• Activities focused on supporting and updating IETF processes</li></ul>

# The IETF and Consensus

- IETF mantra:
  - “We reject kings, presidents and voting. We believe in rough consensus and running code.”
- Rough consensus is achieved when all issues are addressed, but not necessarily accommodated
- Dissenting opinions are heard, but are not controlling
- Humming: a way of measuring consensus that is not voting
- Session chair is responsible for building consensus
- WG mailing list consensus has to be taken into account
- “On Consensus and Humming in the IETF”, P. Resnick, [[RFC 7282](#)]

# IETF Culture



Passionate, smart,  
vocal people



Technical excellence  
is highly valued



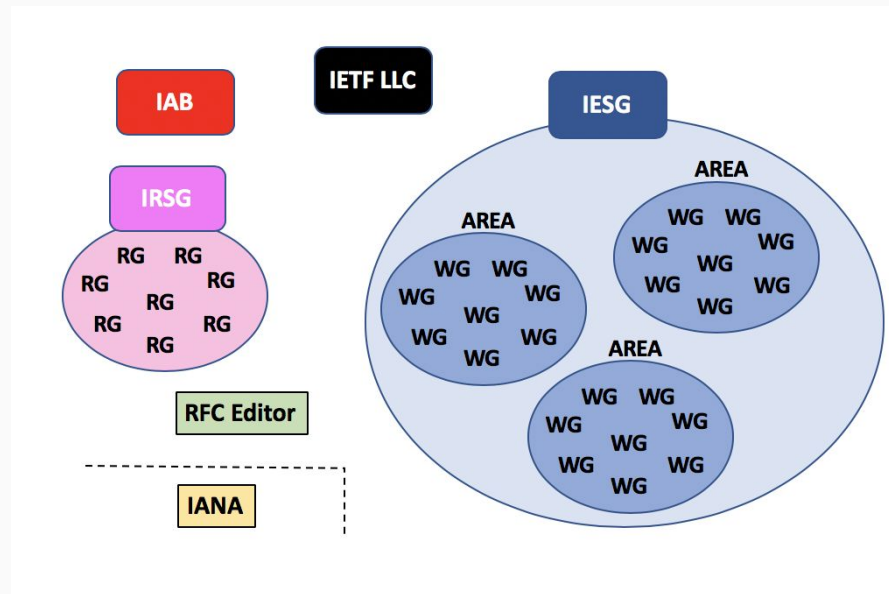
Informal dress code  
(people LOVE t-shirts)



Close working  
relationships  
(people know each  
other)

# Alphabet soup

- **IESG** -- Internet **E**ngineering **S**teering **G**roup
  - Areas and Working Groups here!
- **IRTF** -- Internet **R**esearch **T**ask **F**orce
  - Research Groups here!
- **IAB** -- Internet **A**rchitecture **B**oard
- **IETF LLC** -- IETF **A**dministration **L**LC



# Who does what?

- **IESG:** responsible for technical management of IETF activities and the Internet standards process
- **IRTF:** a parallel organization focused on longer-term research topics for the Internet
- **IAB:** provides oversight of the Internet architecture and the standards process
- **IETF LLC:** provides the corporate legal home for the IETF, the IAB, and the IRTF; provides fiscal and administrative support

# IETF Week in a Nutshell

# An IETF Meeting week

- Organized events on the agenda include:
  - Working Group sessions: ~130 working groups (some subset meeting)
  - Birds of a Feather sessions (BOFs)
  - IRTF sessions: ~ 15 research groups (some subset meeting)
  - Area-wide sessions, IETF-wide plenary(s), invited lunch talks
  - Hackathons and Code Sprints
  - Social Events
  - Tutorials, Deep Dives & Lunch Sessions
  - Hot RFC Lightning Talks
  - Side Meetings, Open Time



# An IETF Meeting week (cont.)

Activities not on the agenda include:

- Hallway meetings
- Many Bar BOFs
- Marathon Editing Sessions

We have an **App** (IETFers)!



The **Agenda** is your friend!

<https://datatracker.ietf.org/meeting/108/agenda>



# (Virtual) IETF 108 Meeting week

- IETF 108 will be all virtual
  - All the same basic elements organized into a week long virtual meeting
- Meetings will run 1100 - 1550 UTC
- All information will be linked from the datatracker page
  - <https://datatracker.ietf.org/meeting/agenda/>
- Additional information on how to participate:
  - <https://www.ietf.org/how/meetings/108/session-participant-guide/>

# Working Group sessions

- Biggest part of an IETF week
- Most work is done on mailing lists in between meetings
- Face-to-face meetings mostly focused on solving key issues
- Sessions are streamed & recorded
- Charter (including milestones) is negotiated with area director



# Birds-of-a-Feather (BOF) sessions

- Often precedes formation of a WG
- Usually includes discussion of a proposed WG charter
- Sometimes a one-shot for a timely topic
- Proposed by a group interested in a topic
- Approved by ADs
- Generally meet only once



# IRTF Research Group sessions

- Officially an activity of the IAB
- Focused more on research versus engineering topics
- IRTF RGs often meet at IETF meetings
- IRTF meetings at the IETF are open to all IETF attendees

Useful reference on the IRTF: RFC 7418  
“An IRTF Primer for IETF Participants”

<https://www.rfc-editor.org/rfc/rfc7418.txt>



# ANRW @ IETF 108

- Academic workshop
  - Forum for researchers, vendors, network operators, and the Internet standards community to discuss emerging results in applied networking research
- Sessions throughout IETF 108 meeting week
- Separate (no cost) registration for IETF 108 attendees
- <https://irtf.org/anrw/2020/>



# Area-wide Sessions, Plenaries, and invited lunch talks



**POTENTIAL OUTCOME: IETF TAKES LEADERSHIP ROLE**  
IETF91

The IETF has leverage-able experience in:

- Protocol definition
- Architecture definition
- Modeling languages

The IETF has RIGHT FOCUS

- Not too broad (e.g. not Health & Safety, etc.)
- Not too narrow (e.g. single service domain)

• APIs Platforms and Frameworks WILL be the future standards front for software driven network architectures

• Same standardization reasoning applies to these higher level concepts – system design, interoperability, and choice.

A diagram consisting of four interconnected circles: a blue circle labeled 'Protocol', a green circle labeled 'YANG Models', a purple circle labeled 'API', and a teal circle labeled 'Framework Definition'. The circles are arranged in a square pattern and are connected by lines.



# Hackathons and Code Sprints





# Networking and Social Events



# But wait... there is more...

- Side meetings (ongoing agenda experiment)
  - <https://trac.ietf.org/trac/ietf/meeting/wiki/108sidemeetings>
- Technical Deep Dive
  - Topic: DNS on 23 July 1800-1930 UTC
- HotRFC Lightning Talks
  - Experimental online format anticipated for IETF 108, more information to be shared soon

# General Meeting Etiquette

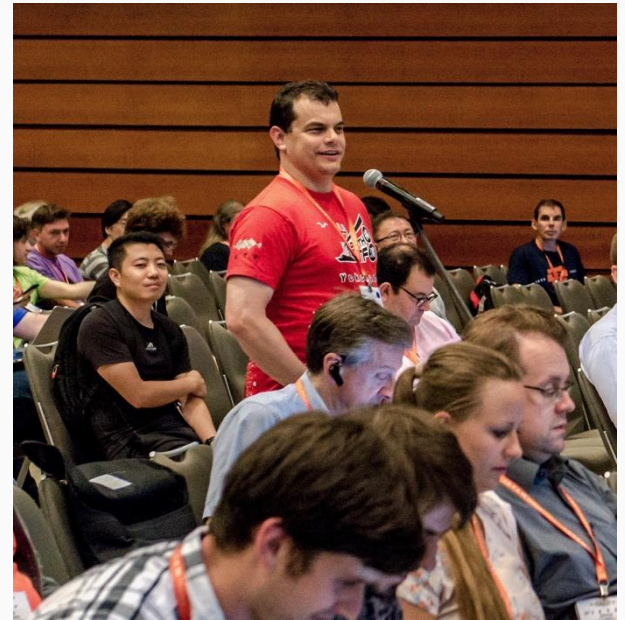
- Read documents of interest before WG sessions
- Behave respectfully and tolerantly towards all participants
- Talk (and listen) to people
- Enjoy yourself
- Remember to sleep!

# Bringing New Work to the IETF

- Develop some collaborators with similar interest
- Write some initial drafts, maybe have some Bar BoFs
- Talk to Area Directors in the relevant area (maybe DISPATCH)
- Propose a BoF (drafts, charter, agenda all needed)
- Hold the BoF (Consensus determines the next steps)
- But first... Check out ... Tutorial on Bringing New Work to the IETF:
  - slides: <https://datatracker.ietf.org/doc/slides-103-edu-sssl-bringing-new-work-to-the-ietf/>
  - video: <https://www.youtube.com/watch?v=YnK3rsZG4Ec>

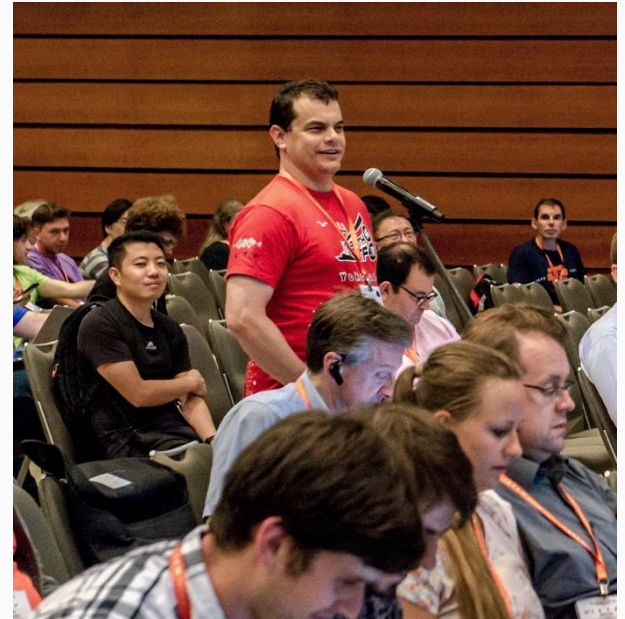
# IETF Session Etiquette

- Speak directly into the microphone
- Say your name every time you speak at the microphone
- Sign the “blue sheets” which provide a record of who is in the room (remote participants recorded as well)
- Technical comments & questions are welcome
- Use the WG Jabber channel to discuss meeting-relevant topics



# IETF Session Etiquette - the online version!

- Practice good online meeting practices.
  - Test your configuration in advance.  
Keep yourself muted except when speaking.
  - Use a headset if possible
  - Speak slowly and clearly. Be concise.
- Technical comments & questions are welcome
- Use the WG Jabber channel to discuss meeting-relevant topics



# The Resources

- People
- Information
- Tools

# Key People: IETF Secretariat





# Key People: RFC Editor Staff & IANA Staff



# Key People: IETF Executive Director



Jay Daley








# The Ombudsteam

- Report any harassment to the [Ombudsteam](https://www.ietf.org/blog/ietf-anti-harassment-policy/) ([BCP 25](#))  
<https://www.ietf.org/blog/ietf-anti-harassment-policy/>
- Allison Mankin, Pete Resnick, Melinda Shore



# Badge Dots & Ribbons

## (Who's Who!)

-  Working Group or BoF Chair
-  Nominations Committee
-  Internet Engineering Steering Group (IESG) Member
-  Internet Architecture Board (IAB) Member
-  Internet Research Group (IRSG) Member
-  RFC Series Editor
-  IETF LLC Board of Directors

TBD (WG or BOF)

TBD (RG)

**OMBUDSTEAM**

**NEWCOMER**

**HOST**



# Newcomer Resources

## **The Tao of the IETF:**

A Novice's Guide to the Internet Engineering Task Force

<https://www.ietf.org/about/participate/tao/>

## **Newcomer's Information Page for IETF 108**

<https://www.ietf.org/how/meetings/108/newcomers/>

## **Tutorials:**

<https://www.ietf.org/about/participate/tutorials/>

# More Meeting Resources

## **First-time attendees mailing list**

<https://www.ietf.org/mailman/listinfo/108-newcomers>

## **IETF Systems**

<https://www.ietf.org/blog/ietf-systems/>

## **Meeting mailing lists**

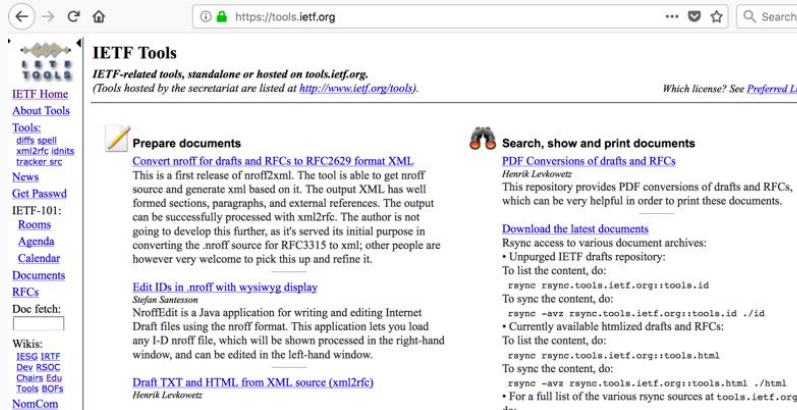
<https://www.ietf.org/how/meetings/ietf-meeting-mailing-lists/>

(social lists, travel companions, meeting participants)

# Datatracker and Tools Page

## IETF Datatracker

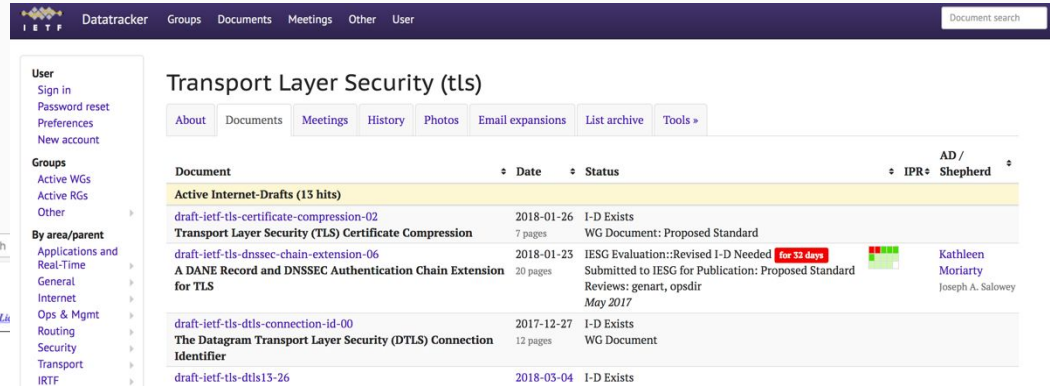
<https://datatracker.ietf.org/>



The screenshot shows the IETF Tools page. At the top, it says "IETF Tools" and "IETF-related tools, standalone or hosted on tools.ietf.org." Below this, there are several tool categories:

- Prepare documents:** Convert nroff for drafts and RFCs to RFC2629 format XML. This is a first release of nroff2xml. The tool is able to get nroff source and generate xml based on it. The output XML has well formed sections, paragraphs, and external references. The output can be successfully processed with xml2rfc. The author is not going to develop this further, as it's served its initial purpose in converting the nroff source for RFC3315 to xml; other people are however very welcome to pick this up and refine it.
- Edit IDs in nroff with wysiwyg display:** NroffEdit is a Java application for writing and editing Internet Draft files using the nroff format. This application lets you load any I-D nroff file, which will be shown processed in the right-hand window, and can be edited in the left-hand window.
- Draft TXT and HTML from XML source (xml2rfc):** Henrik Levkowetz

Other tools listed include: diff5 spell, xml2rfc, idnits, tracker, etc, News, Get Passwd, IETF-101: Rooms, Agenda, Calendar, Documents, RFCs, Doc fetch, Wikis, IESG IRTF, Dev, RSOC, Chairs, Edu, Tools, BOFs, NomCom.



The screenshot shows the IETF Datatracker page for Transport Layer Security (tls). The page has a navigation bar with "Datatracker", "Groups", "Documents", "Meetings", "Other", and "User". A search bar is in the top right. The main content area is titled "Transport Layer Security (tls)" and has tabs for "About", "Documents", "Meetings", "History", "Photos", "Email expansions", "List archive", and "Tools".

Below the tabs, there is a table of documents:

Document	Date	Status	AD / IPR	Shepherd
<b>Active Internet-Drafts (15 hits)</b>				
<b>draft-ietf-tls-certificate-compression-02</b>	2018-01-26	I-D Exists		
<b>Transport Layer Security (TLS) Certificate Compression</b>	7 pages	WG Document: Proposed Standard		
<b>draft-ietf-tls-dnssec-chain-extension-06</b>	2018-01-23	IESG Evaluation::Revised I-D Needed <b>for 32 days</b>		Kathleen Moriarty
<b>A DANE Record and DNSSEC Authentication Chain Extension for TLS</b>	20 pages	Submitted to IESG for Publication: Proposed Standard		Joseph A. Salowey
		Reviews: genart, opsdirt		May 2017
<b>draft-ietf-tls-dtls-connection-id-00</b>	2017-12-27	I-D Exists		
<b>The Datagram Transport Layer Security (DTLS) Connection Identifier</b>	12 pages	WG Document		
<b>draft-ietf-tls-dtls13-26</b>	2018-03-04	I-D Exists		

## Tools Page

<https://tools.ietf.org/>

# Meetecho

- Meetecho is the IETF custom tool for remote participation!
- All sessions are linked off of the datatracker agenda page.
- Additional information <https://www.ietf.org/how/meetings/108/session-participant-guide/>



The Meetecho team at IETF 83, (left to right) Lorenzo Miniero, Simon Romano, Tobia Castaldi, and Alessandro Amirante



# The Network @ IETF

<https://tickets.meeting.ietf.org/wiki/IETF108network>

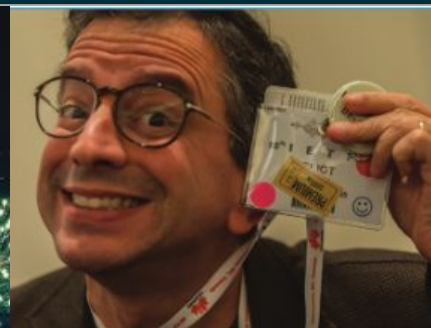
- The IETF runs its own network (including sometimes the primary hotel)
- Generally up by early Saturday and down around noon on Friday
- There are a number of wireless SSIDs available
- Avoid ietf-legacy if possible. It is unencrypted (enough said...)
- Secure networks use userid: “ietf” and password: “ietf”
- There’s a quiet work space (terminal room) with no terminals, but with power and wired Ethernet connectivity.
- And, there’s a printer and a helpdesk in the registration area.

# Jabber/XMPP Groupchat

The IETF uses eXtensible Messaging and Presence Protocol (XMPP) [RFC 6120] to host a number of chat rooms during the IETF meeting.

- Used to ask questions and provide a hint of where the discussion is at on slides for audio remote listeners.
- Integrated into Meetecho for IETF 108 Online sessions
- More information at:  
<https://www.ietf.org/how/meetings/jabber/>

# Above all: Enjoy!



# Questions or Feedback?

<https://www.surveymonkey.com/r/108new>

What did we miss?

Please help us help you - answer our survey!

<https://www.surveymonkey.com/r/108new>

For any additional questions, feel free to contact us at

[edu-team@ietf.org](mailto:edu-team@ietf.org)

