

Internet Engineering Task Force Newcomers' Overview

November 2019



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 106

<https://www.ietf.org/how/meetings/106/newcomers>

- Newcomer's tutorial (12:30 – 13:30, Sunday, 17 November)
- IETF Quick Connections (16:00 - 17:00 Sunday, 17 November)
 - Short one-on-one conversations with experienced IETFers
- IETF Guides Mentoring
- Newcomer's Dinner (18:30 - 20:00, Monday, 18 November)
- Newcomers Feedback session (08:00 – 09:00, Thursday, 21 November)

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

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



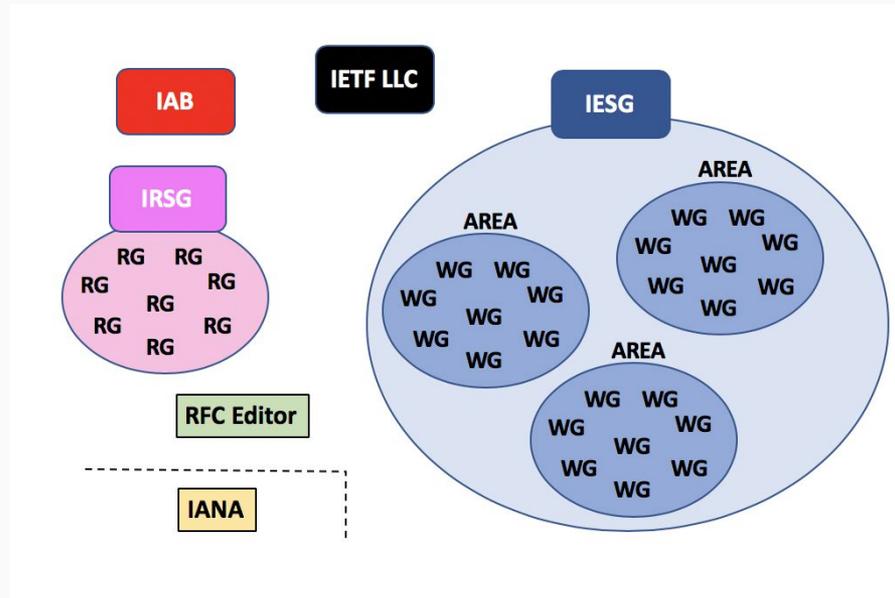
Informal dress code
(people LOVE t-shirts)



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

The IETF Meeting week

- Organized events on the agenda include:
 - Working Group sessions: ~130 working groups (~80 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

The 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/106/agenda>

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 105

- Academic workshop
 - Forum for researchers, vendors, network operators, and the Internet standards community to discuss emerging results in applied networking research
- Monday @ IETF 105
- Program online: <https://irtf.org/anrw/2019/program.html>
- Separate (no cost) registration for IETF 105 attendees (<https://irtf.org/anrw/2019/attend.html>)



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 diamond shape and are connected by lines.



Four kinds of predictions

A diagram showing four kinds of predictions. It features a central point with four arrows pointing outwards to different categories: 'Network applications', 'Network architecture', 'Network protocols', and 'Network management'. Each category is accompanied by small icons and text. The text 'Internet as a utility is water + electricity' and 'Prediction: this will meet IETF @ IETF91' is visible in the top right corner. The number '86' is also present.

A speaker presenting to an audience in a conference hall. The speaker is standing at a podium on the stage, gesturing towards a large screen behind him. The audience is seated in rows, facing the speaker. The room has a high ceiling with circular light fixtures.

IESG Open Mic

A speaker presenting to an audience in a conference hall. The speaker is standing at the front of the room, gesturing towards a large screen behind him. The audience is seated in rows, facing the speaker. The room has a high ceiling with circular light fixtures.

Hackathons and Code Sprints



Networking and Social Events



But wait... there is more...

- Side meetings, open time (ongoing agenda experiment)
 - <https://www.ietf.org/how/meetings/106/side-meetings/>
- Tutorials (Sunday afternoon) and Deep Dives (Tuesday morning)
- HotRFC Lightning Talks (Sunday evening 6 pm - 8 pm)

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



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 106

<https://www.ietf.org/how/meetings/106/newcomers/>

Tutorials:

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

More Meeting Resources

Meeting wiki:

<https://trac.ietf.org/trac/ietf/meeting/wiki/ietf106>

First-time attendees mailing list

<https://www.ietf.org/mailman/listinfo/106-newcomers>

IETF Systers

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

Meeting mailing lists

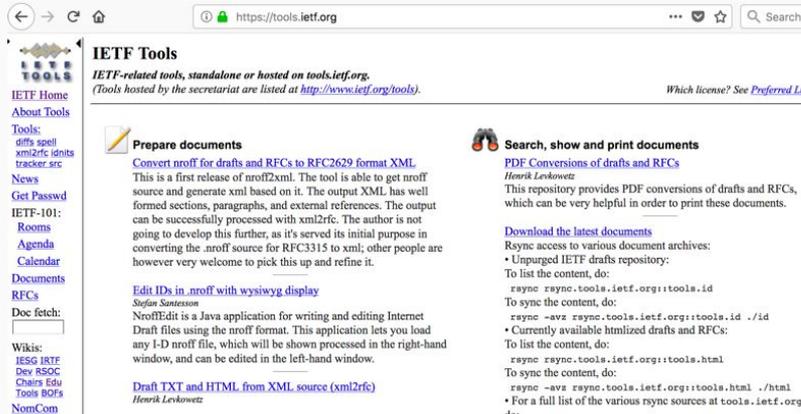
<https://www.ietf.org/how/meetings/ietf-meeting-mailing-lists/>

(social lists, travel companions, meeting participants)

All the detailed information...

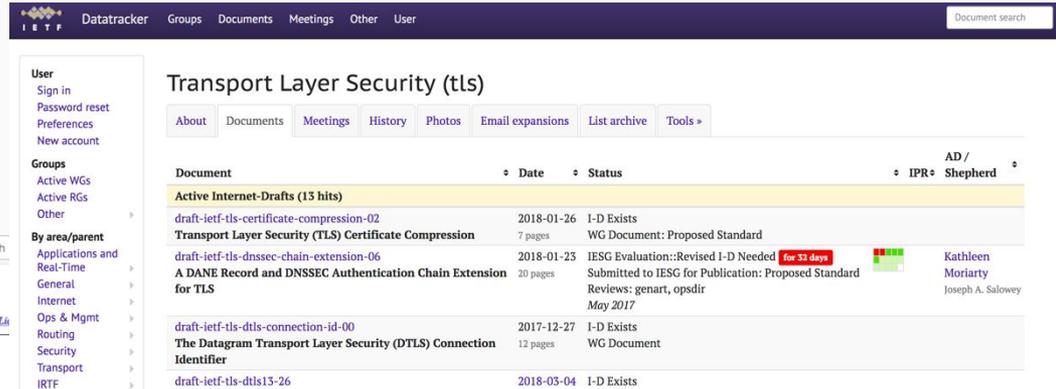
IETF Datatracker

<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
- Search, show and print documents:** PDF Conversions of drafts and RFCs. Henrik Levkowetz. This repository provides PDF conversions of drafts and RFCs, which can be very helpful in order to print these documents.
- Download the latest documents:** Rsync access to various document archives:
 - Unpurged IETF drafts repository: To list the content, do: `rsync rsync.tools.ietf.org::tools.id`. To sync the content, do: `rsync -avz rsync.tools.ietf.org::tools.id ./id`
 - Currently available htmlized drafts and RFCs: To list the content, do: `rsync rsync.tools.ietf.org::tools.html`. To sync the content, do: `rsync -avz rsync.tools.ietf.org::tools.html ./html`



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". Below the navigation bar, there are tabs for "About", "Documents", "Meetings", "History", "Photos", "Email expansions", "List archive", and "Tools". The main content area shows a table of documents:

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

Tools Page

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

Remote Participation

<https://www.ietf.org/how/meetings/106/remote>

- Attendance at face-to-face IETF meetings is not required.
- IETF supports remote attendance capabilities for all WG sessions.
- Meetecho is the tool for remote participation!



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/IETF106network>

- 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

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

1. Get a client: <http://xmpp.org/software/clients.html>
2. Register an account: <https://list.jabber.at/>
3. Join a chat room, usually: <wgname>@jabber.ietf.org

Used to ask questions and provide a hint of where the discussion is at on slides for audio remote listeners.

Above all: Enjoy!



Questions or Feedback?

<https://www.surveymonkey.com/r/105new>

What did we miss?

Please help us help you - answer our survey!

<https://www.surveymonkey.com/r/106new>



Come to the feedback session Thursday morning!

Contact us at edu-team@ietf.org