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# Introduction to the IETF

A brief introduction to the Mission, Participants, Principles, Work and Meetings of the IETF

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## About the IETF

The Internet Engineering Task Force (IETF), founded in 1986, is the premier standards development organization (SDO) for the Internet. The IETF makes voluntary standards that are often adopted by Internet users, network operators, and equipment vendors, and it thus helps shape the trajectory of the development of the Internet. But in no way does the IETF control, or even patrol, the Internet.

## Mission

Quoting from [RFC 3935: A Mission Statement for the IETF](#):

*"the overall goal of the IETF is to make the Internet work better."  
"Its mission is to produce high quality, relevant technical and engineering documents that influence the way people design, use, and manage the Internet in such a way as to make the Internet work better. These documents include protocol standards, best current practices, and informational documents of various kinds."*

The Mission Statement further states that the Internet isn't value-neutral, and neither is the IETF. The IETF wants the Internet to be useful for communities that share our commitment to openness and fairness. The IETF embraces technical concepts such as decentralized control, edge-user empowerment and sharing of resources, because those concepts resonate with the core values of the IETF community. These concepts have little to do with the technology that's possible, and much to do with the technology that the IETF chooses to create.

## Participants

There is no membership in the IETF. Anyone can participate by signing up to a working group mailing list (more on that below), or registering for an IETF meeting. All IETF participants are considered volunteers and expected to participate as individuals, including those paid to participate.

The IETF welcomes all interested individuals and participants come from all over the world and from many different parts of the Internet industry. In any one year, over 7000 people actively participate in the IETF either by authoring a document, engaging in a mailing list discussion, or attending a meeting.

The only fee the IETF charges is for registering for an IETF meeting, with options in place to prevent that fee from becoming a barrier to participation.

IETF participants are regularly shown the [Note Well](#), a reminder of the policies and processes they are expected to comply with. To ensure an environment in which people of many different backgrounds are treated with dignity, decency, and respect, these policies include a [code of conduct](#), an [anti-harassment policy](#), and the IETF has an [Ombudsteam](#) who are the point of escalation for any problems with conduct.

The IETF conducts its work solely in English.

## Principles

The IETF pursues its mission in adherence to the following cardinal principles:

**Open process** Any interested person can participate in the work, know what is being decided, and make his or her voice heard on the issue. Part of this principle is our commitment to making our documents, our Working Group mailing lists, our attendance lists, and our meeting minutes publicly available on the Internet.

**Technical competence** The issues on which the IETF produces its documents are issues where the IETF has the competence needed to speak to them, and that the IETF is willing to listen to technically competent input from any source. Technical competence also means that we expect IETF output to be designed to sound network engineering principles - this is also often referred to as "engineering quality".

**Volunteer Core** Our participants and our leadership are people who come to the IETF because they want to do work that furthers the IETF's mission of "making the Internet work better."

**Rough consensus and running code** We make standards based on the combined engineering judgement of our participants and our real-world experience in implementing and deploying our specifications.

**Protocol ownership** When the IETF takes ownership of a protocol or function, it accepts the responsibility for all aspects of the protocol, even though some aspects may rarely or never be seen on the Internet. Conversely, when the IETF is not responsible for a protocol or function, it does not attempt to exert control over it, even though it may at times touch or affect the Internet.

## RFCs

The IETF publishes its technical documentation as RFCs, an acronym for their historical title *Requests for Comments*. They describe the Internet's technical foundations, such as addressing, routing, and transport technologies. RFCs also specify protocols like TLS 1.3, QUIC, and WebRTC that are used to deliver services used by billions of people every day, such as real-time collaboration, email, and the domain name system.

Software developers, hardware manufacturers, and network operators around the world voluntarily implement and adopt the technical specifications and best practices described by RFCs.

The [RFC Editor](#) website is the authoritative site for RFCs. The [IETF Datatracker](#) provides transparency on the process that resulted in the publication of each RFC.

For more information see [About RFCs](#).

## The Work

The work of the IETF is to produce technical documents (RFCs) that define how Internet technology works in detail, and can be operated and managed at scale.

New work in the IETF begins with one or more participants producing a discussion document called an Internet-Draft (I-D) and then working to get that I-D adopted for further work. Anyone can write an Internet-Draft on any topic they believe is relevant to the IETF. There are different routes that an I-D can follow to be adopted, worked on and eventually become an RFC.

The IETF has [policies](#) about Intellectual Property Rights (IPR) that are designed to ensure that IETF participants have as much information as possible about any IPR constraints on a technical proposal as early as possible in the development process.

The majority of the IETF's work is done in [Working Groups](#). A Working Group (WG) has its own mailing list with most of its interaction, and all of its official work, conducted on this list. The day to day work of WGs revolves around Internet-Drafts and over time the WG shapes them into RFCs. Decisions within WGs, as with the broader IETF, are taken by 'rough consensus' and not by voting. When a WG has finished with an I-D it goes through a process to ensure that it has approval from the appointed technical leadership and the consensus support of the IETF as a whole.

When an I-D has cleared all the hurdles to become an RFC it goes through a professional editorial process and is then assigned a number and published in a range of formats.

## IETF Meetings

The IETF holds three week-long meetings a year. Onsite participation averages between 1000 and 1500 participants. Every

effort is made to integrate the 600+ remote participants into the overall meeting experience.

IETF meetings are very different from standard industry conferences as they are working meetings with the primary goal of helping Working Groups (WGs) get their tasks done, and the secondary goal of promoting mixing among the WGs. For that reason, most of the agenda is comprised of multiple simultaneous sessions for Working Groups. There is no exposition hall and only a small section of the agenda is set aside for tutorials, industry presentations, panel sessions, and opportunities for the whole community to come together.

For more information see [Guide to IETF Meetings](#).

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# IETF Trust