

What's new at the IETF



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IETF Mission

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]



Everyone may participate



Make all work available for **free**



Judge contributions on **technical merits**



Determine success by **voluntary deployment**

IETF

Key Organizational Elements

Standards

IETF standards are organized into Areas

Applications & Real-Time
(art)

Internet
(int)

General
(gen)

Ops & Mgmt
(ops)

Routing
(rtg)

Security
(sec)

Web & Internet Transport
(wit)

- Each Area are composed of multiple Working Groups (WGs) on specific topics
- ~125 active WGs

Architecture and Outreach

Internet Architecture Board (**IAB**) provides:

- Long-range technical direction for Internet development
- Pre-standardization workshops
- Liaison coordination
- Outreach

The **IETF Administration LLC** provides the corporate legal home of all the IETF activities

The **IETF Intellectual Property Management Corporation (IPMC)** holds and manages the rights to IETF contributions

Research

Internet Research Task Force (**IRTF**) conducts research on the evolution of the Internet protocols, applications, architecture and technology.

- Long-term exploration ahead of standardization activities
- Organized into ~16 active Research Groups (RGs)

IETF

Work Areas and Key Protocols

Internet Applications
(W3C, OASIS, etc.)

Operations & Management (OPS)

network
management &
operational
best practices

YANG
NETCONF
SNMP
RADIUS
DNS

Applications & Realtime Media (ART)

application protocols over end-to-end transports, voice & video, SIP, RTP, email

Web and Internet Transport (WIT)

end-to-end transmission mechanisms over network paths, HTTP
TCP, UDP, QUIC, congestion control

Routing (RTG)

stable paths across dynamically interconnected networks
BGP, OSPF, IS-IS, MPLS, RSVP, VPNs, SFC, multicast

Internet (INT)

how to carry IP packets over different link layers
IPv6, IPv4, DHCP, NTP, mobility, multihoming

Security (SEC)

security & privacy
at all layers &
for all protocols

TLS
IPsec
PGP
S/MIME
PKIX
cryptography

Link Layers
(IEEE, 3GPP, etc.)

Flexible approaches to contribution

All IETF meetings are remote-only or hybrid

35 - 45%

of plenary meetings participants
that are remote

~40%

of working groups meet during the
year in remote-only sessions



Same meeting participation tool
for on-site and remote

All key working group decisions
confirmed via email

I E T F[®]
Datatracker

All work in progress, final
specifications, and meeting
materials, recordings are
available free

<https://datatracker.ietf.org>

IETF Work

New work

Newly formed Working Groups:

- [Secure Evidence and Attestation Transport](#) (SEAT)
- [Domain Connection](#) (DCONN)
- [Open Cloud Mesh](#) (OCM)
- [Web Bot Auth](#) (WEBBOTAUTH)
- [PKI, Logs, And Tree Signatures](#) (PLANTS)

In process of chartering:

- [Authenticated Transfer](#) (ATP)

IETF Work

New work

Birds of a Feather (BoFs) approved for IETF 125

- [Coordinating Agent To Agent List of efforts](#) (CATALIST)
 - An effort to coordinate the various initiatives to develop IETF work on AI agent-to-agent communications.
- [Operationalizing Network & Service abstractionNs](#) (ONSEN)
 - Builds on the [IAB NEMOPS](#) workshop to enable operators to manage and automate service abstractions in a consistent manner.

IAB Workshops

- Dec-2025: IAB Workshop on IP Address Geolocation
 - Recently Concluded; initial report to be posted soon
 - Recordings: Day 1, Day 2, Day 3
 - IP is a weak and overloaded signal for geolocation
 - Many operational issues - Anycast, Satellite, overlays...
 - Need for signaling intent, certainty and consent
 - Scope for incremental updates for IP geo but cannot meet high-assurance or privacy-sensitive needs
- Oct-2025: IAB/W3C Workshop on Age-Based Restrictions on Content Access
 - Initial draft report posted
 - No single one-size-fits-all technical solution: different use cases imply different trade-offs, and network-layer solutions alone are insufficient.
 - Strong privacy and trust concerns
 - These mechanisms can have long-term impacts on Internet architecture
 - Need for collaboration and common vocabulary

AI

Newly started work

- [AI Preferences \(aipref\)](#)
 - Working on building blocks for the expression of preferences about how content is collected and processed for Artificial Intelligence (AI) model development, deployment, and use.
- [Web Bot Auth \(webbotauth\)](#)
 - To work on cryptographic identity for bots as non-browser traffic on the Web grows and traditional mechanisms such as UA, IP addresses become deficient
- For the AI datacenter
 - Energy efficiency metrics ([GREEN](#)), Routing protocols (e.g., [RIFT](#), [LSVR](#)), Improved identity of workload ([WIMSE](#))
- Engaged on the ITU AI Standards Exchange

DNS

Related work



- Operations (e.g., DNS maintenance, Multi-Signer, LocalRoot)
- Recent [DELEG](#) WG
 - Currently, DNS has limited ability for authoritative servers to signal their capabilities to recursive resolvers. DELEG extends DNS to allow more information than plain NS/DS, e.g., SVCB-like
- New group on Domain Connect
 - [DCONN](#) is an application-level protocol that enables Software Service Providers (e.g., hosting) to request configuration of required DNS records in their customers' zones in a DNS provider
- DNSOP WG has been rechartered, talks about split operations (DNSOP) and maintenance/protocol work (perhaps revive DNSEXT),
- Resolver discovery (see [ADD](#))
- Service Discovery (e.g., dnssd / mDNS, Bonjour, .local) (see [DNSSD](#))
- [...]

Operations

Related work

- green WG
 - Working on characterizing energy efficiency metrics, and optimizing energy efficiency across the network
- NMOP WG
 - Focused on operator-facing, near-term experiments and standards efforts — currently advancing work on integrating YANG/NETCONF-Push with Apache Kafka and time-series databases, network anomaly and incident management, and updating operator requirements (RFC 3535-bis) for network management.
- IAB NEMOPS Workshop Follow up
 - Active discussion on operationalizing network and service abstractions and address some of the challenges highlighted in that workshop.
- **Internet Engineering and Planning Group**
 - IEPG meets at every IETF meeting to share operational insights and discuss current issues affecting the global Internet infrastructure.

IPv6

Updates on-going work

- v6ops
 - [RFC 9898](#) Neighbor Discovery Considerations in IPv6 Deployments (summarizes ND issues and fixes)
 - [RFC 9663](#) Using DHCPv6 Prefix Delegation (DHCPv6-PD) to Allocate Unique IPv6 Prefixes per Client in Large Broadcast Networks
 - [RFC 9818](#) DHCPv6 Prefix Delegation on IPv6 CPE in LANs (cascade of DHCP-PD)
 - [draft-ietf-v6ops-6mops](#) IPv6-Mostly Networks: Deployment and Operations Considerations
- 6man
 - [RFC 9844](#) Entering IPv6 Zone Identifiers in User Interfaces (LLA scope on web GUI ?)
 - [RFC 9762](#) Using RAs to Signal the Availability of DHCPv6-PD to Clients
 - [draft-ietf-6man-rfc6724-update](#) Prioritizing known-local IPv6 ULAs through address selection policy



| Routing

Updates on-going work

- Inter-Domain Routing
 - IDR continues to advance work on BGP enhancements, with active discussions around Flowspec, SR, error handling, and update to base BGP-4 (4271bis).
- Global Routing Operations
 - GROW focuses on improving the visibility and stability of Internet routing, with current work on BMP extensions, IXP route-server best practices, and operational guidance for BGP security and scalability.
- SIDR Operations
 - SIDROPS develops operational guidelines for deploying RPKI, ROA, ASPA, and related routing-security technologies, and is currently advancing drafts on RPKI-to-router v2 (8210bis), ASPA verification/profile, and guidance for avoiding signaling RPKI state in BGP among others.

Security and Encryption

On-going relevant work

- Post Quantum Cryptography
 - Multiple WGs (e.g., [TLS](#), [JOSE](#), [COSE](#)) adding support for [Module-Lattice-Based Key-Encapsulation Mechanism Standard \(ML-KEM\)](#)
- PQUIP
 - [Post-Quantum Cryptography for Engineers](#) approved for publication as an RFC
- OAUTH
 - [RFC9700](#) documented Best Current Practices for OAuth 2.0 Security
 - This is being [updated](#) since there were some attacks discovered after publication

Transport and Tunneling Updates

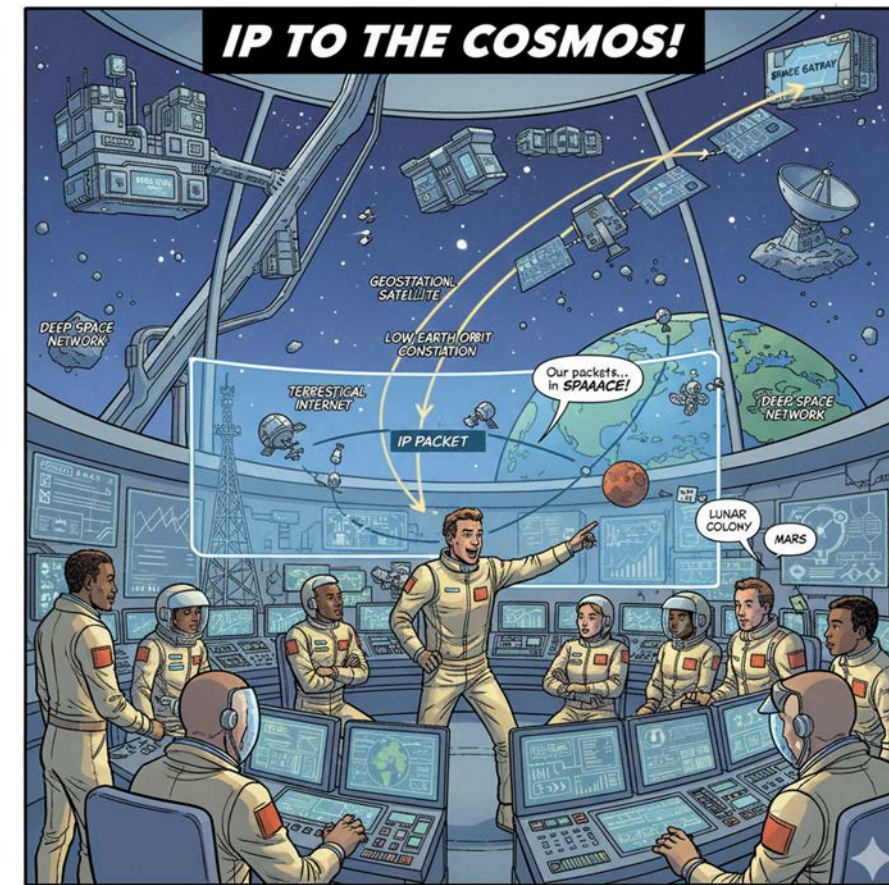
Updates on-going work

- QUIC working group
 - Rechartered to work on QUIC over a reliable and bidirectional byte stream substrate aka TCP to support deployability and simplify application implementations
 - Multipath Extension ready to be published
- MASQUE working group
 - Base protocols for UDP/IP/Ethernet proxying over QUIC/H3 are done
 - Extension work on-going for QUIC-aware proxying, to provide DNS configuration info to the proxy, and bound IP addresses/ports to a UDP-connect request
 - Planned rechartering to work on a new draft that explains “The MASQUE Proxy” concept
- Media over QUIC (MoQ) working group
 - Main work-in-progress item is the MoQ transport protocol that enables media producers to publish data and have it consumed via subscriptions
 - The architecture support intermedia content distribution networks by defining a relay function

Space

Newly started and proposed work

- New group on [Taking IP To Other Planets \(tiptop\)](#)
 - Working on documenting key characteristics of space communications and developing recommendations for configuration and deployment of IP based architecture/protocols in such environments
 - Scope Moon/Mars, DNS & QUIC mainly
- Continuation of work in Time-Variant Routing ([TVR](#)) and Delay/Disruption Tolerant Networking ([DTN](#))
- Systems and Protocol Aspects for Circumstellar Environments Research Group ([SPACERG](#))
 - LEO/MEO/GEO + cislunar & beyond



Internet Research Task Force (IRTF)

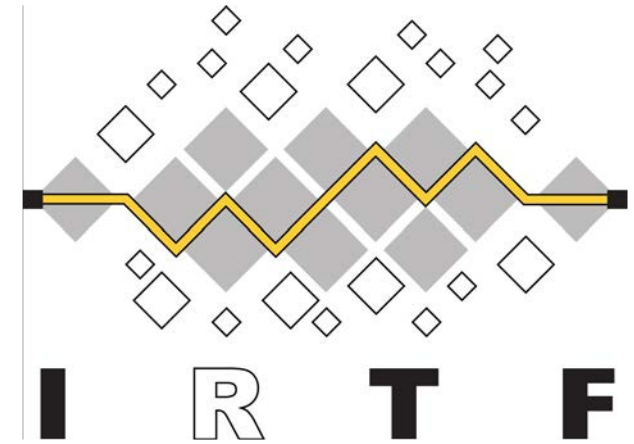
Examples of Long Term Research

Example technical research groups

- [Quantum Internet Research Group \(QIRG\)](#)
- [Path Aware Networking Research Group \(PANRG\)](#)
- [Decentralization of the Internet \(DINRG\)](#)
- [Sustainability and the Internet \(SUSTAIN RG\)](#)
- [Protocol Aspects for Circumstellar Environments \(SPACERG\)](#)

Example policy-focused research groups

- [Human Rights Protocol Considerations \(HRPC\)](#)
- [Global Access to the Internet for All \(GAIA\)](#)



<https://www.irtf.org/>

Goals & Next Steps...

- These are the recent and long running topics we thought would be of interest to the APRICOT/APNIC community
- Next time we are able to make it to APRICOT, what would you like to hear about?
 - How you can participate?
 - Updates on current work?
 - Upcoming work and hot topics?

Upcoming IETF In the region...

A screenshot of a webpage announcement for IETF 125. The background is a dark, hazy image of a city skyline with several tall skyscrapers. Overlaid on this is white text. At the top left, there is a small house icon followed by a greater-than sign and the word 'Meetings'. Below this, the text 'IETF 125 Shenzhen' is prominently displayed in a large, bold font. Underneath that, the dates '14 Mar 2026 - 20 Mar 2026' are shown in a slightly smaller font. At the bottom, a paragraph of text states: 'IETF 125 starts Saturday 14 March and runs through Friday afternoon, 20 March.'

🏠 > [Meetings](#)

IETF 125 Shenzhen

14 Mar 2026 - 20 Mar 2026

IETF 125 starts Saturday 14 March and runs through Friday afternoon, 20 March.

- Fee Waivers for Remote Participation are also available

**thank you,
and
questions...**