18 September 2017

# What's Happening at the IETF & IRTF?
## Human Rights Protocol Considerations
## and how to get involved

Internet Society

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# Disciaimer

**Two important points:**

No-one really speaks *for* the IETF or IRTF

I am speaking *about* the IETF or IRTF as an individual participant

https://trac.tools.ietf.org/group/iesg/trac/wiki/SpeakingForIetf
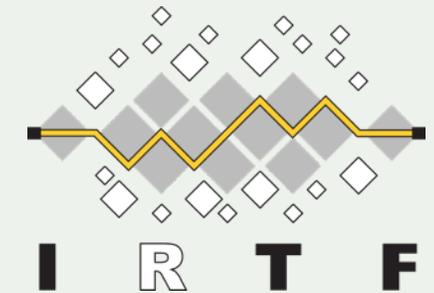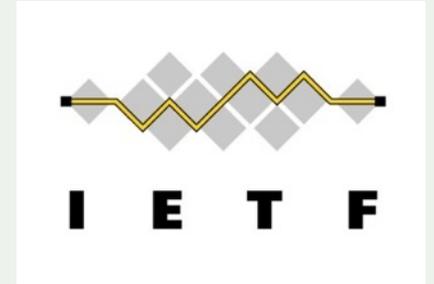
# IETF Standards make the Internet work

**TCP/IP**

—IPv4 (RFC791) and IPv6 (RFC2460…)

—TCP (RFC675…) and UDP (RFC768)

**E-Mail**

—SMTP (RFC5321), IMAP (RFC3501)

**Network and Routing**

—BGP (RFC4271), OSPF (RFC2178…), MPLS (RFC3031)

**DNS**

—DNS (RFCs 1034, 1035…)

—DNSSEC (RFCs 4033, 4034 & 4035)

—DANE (RFCs 6698, 7671…)

**Web**

—HTTP (RFC2616…)

**Security**

—TLS (RFCs 5246 & 6176)

# IETF Areas - http://www.ietf.org/iesg/area.html

| | |
|---|---|
| **Applications and Real-Time (ART)** | • Application protocols and architectures<br>• Real-time (and non-real-time) communication |
| **Transport (TSV)** | • Mechanisms related to data transport on the Internet<br>• Congestion control |
| **Routing (RTG)** | • Routing and signalling protocols |
| **Internet (INT)** | • IPv4/IPv6, DNS, DHCP, VPNs, mobility |
| **Operations and Management (OPS)** | • Network management<br>• Operations: IPv6, DNS, security, routing |
| **Security (SEC)** | • Security protocols and mechanisms, including cryptography |
| **General (GEN)** | • Activities focused on supporting and updating IETF processes |

# Internet Research Task Force
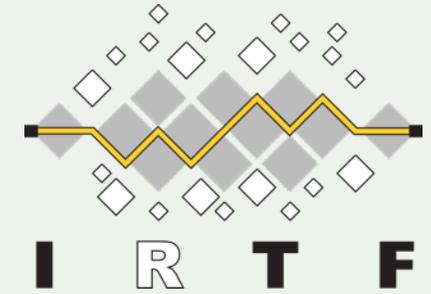
— Considers long-term research issues related to the Internet

— IRTF Chair & Research Group Chairs form **Internet Research Steering Group (IRSG)**

— Publishes RFCs in IRTF Stream

— Current Research Groups:

- Crypto Forum (CFRG)
- Thing-to-Thing (T2TRG)
- Internet Congestion Control (ICCRG)
- Measurement & Analysis (MAPRG)
- Network Function Virtualisation (NFVRG)
- Network Management (NMRG)
- Information-Centric Networking (ICNRG)
- Network Coding (NWCRG)
- Global Access to the Internet for All (GAIA) – Jane Coffin (Chair)
- Human Rights Protocol Considerations (HRPC)

# Participating in IETF & IRTF

— https://www.ietf.org/ and https://www.irtf.org

— Anyone can participate in the mailing lists and discussions

— Anyone can submit a 'draft' document
(known as an *Internet Draft* or *I-D*)

— Working Groups and Research Groups debate and discuss drafts

— Documents progress through the standards process to become RFCs

— Primary venue for all communication is e-mail

# Impact of Internet Protocols on Human Rights

— UN Human Rights Council 2012 – affirms rights defined in Article 19 of Universal Declaration of Human Rights and International Covenant on Civil and Political Rights must be protected online

— UN General Assembly 2013 – calls upon all States to respect the right to privacy in digital communication

— UN Special Rapporteur FoE 2015 - governments should promote use of strong encryption and protect anonymous expression online

— UN Special Rapporteur FoE 2016 – private entities should integrate commitments to freedom of expression into product engineering, policies and standards

# IRTF Human Rights Protocol Considerations

— IRTF Human Rights Protocol Considerations Research Group established in Jan 2015

— Researching whether standards and protocols can enable or threaten human rights

— Can the human rights characteristics of the Internet be degraded if not properly defined, described and sufficiently taken into account udring rotocol development.

— Open, secure and reliable connectivity is essential for rights such as freedom of expression and freedom of association.

# RFC 6973: Privacy Considerations for Internet Protocols

— Entry point for this work

— Offers guidance for developing privacy considerations for inclusion in protocol specifications.

— Aims to make designers, implementers, and users of Internet protocols aware of privacy-related design choices.

— Suggests that whether any individual RFC warrants a specific privacy considerations section will depend on the document's content.

— Builds on previous body of security analysis by recognizing the threats to privacy are security threats

# Research into Human Rights Protocol Considerations draft-irtf-hrpc-research-14

— Informational document with consensus from IRTF HRPC Research Group

— Aims to offers guidelines similar to RFC 6973 (privacy considerations)

— Outlines human rights threats on the Internet

— Consider how well-known Internet protocols (e.g. DNS, NAT and HTTP) can have human rights concerns

— Considers implications of traffic interception, manipulation, throttling, logging, tracking, and DDoS on human rights

# Research into Human Rights Protocol Considerations draft-irtf-hrpc-research-14

— Provides guidelines in 19 areas such as privacy and confidentality, but also:

- Connectivity: is end-to-end connectivity supported, do protocols support low bandwidth and high latency, can protocols operate in a stateless manner?

- Content agnosticism: is all network traffic delivered in a non-discriminatory way?

- Authenticity: can receiver be sure data comes from the source it claims to come from?

- Internationalisation: are protocols, standards, and implementations usable in different languages and scripts?

- Censorship resistance: do protocols introduce new identifiers that can be associated with persons or content?

- Open standards: are protocol specifications published, and their functioning known?

# Other HRPC RG Drafts

— Freedom of Association on the Internet (draft-tenoever-hrpc-association-02)

  – Scope the relationship between Internet protocols and the right to freedom of assembly and association

— On the Politics of Standards (draft-tenoever-hrpc-political-02)

  – Outline different views on the relation between protocols and politics, and whether protocols are political

— Unrequested Communications (draft-tenoever-hrpc-unrequested-00)

  – Addresses issue of unrequested traffic in the form of spam or DDoS attacks

# Next Meeting: IETF 100

— **11-17 November 2017, Singapore**

https://www.ietf.org/meeting/100/

— **HRPC RG meeting**

Friday 17 Nov 2017 (0900-1130 UTC+8)

— **Remote participation available:**

– Audio streams
– Web conferencing systems
– Jabber chat rooms

# IETF Fellowship Programme

**Fellowships available to enable people to attend IETF meetings**

http://wwwe.internetsociety.org/what-we-do/education-and-leadership-programmes/ietf-and-ois-programmes/internet-society-fellowship

# IETF Policy Programme

**Fellowships available for regulators to attend IETF meetings and learn about IETF standards and processes**

https://www.internetsociety.org/what-we-do/education-and-leadership-programmes/ietf-and-ois-programmes/internet-society-fellowship-5

# Summary

— The IETF and IRTF makes the Internet work better

— It has a fundamental role in Internet administration

— It has international scope, but local relevance

— It has an open, inclusive and well-established structure

— Your participation is critical to the success

— More information:

http://www.ietf.org/newcomers.html

# Thank you.

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