Measurement and Analysis for Protocols

Research Group (maprg)

Nov 5, 2024, IETF121 in Dublin

co-chairs <maprg-chairs@ietf.org>:

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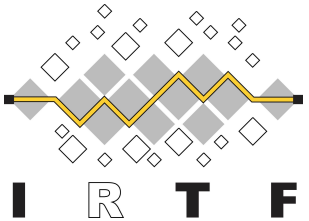
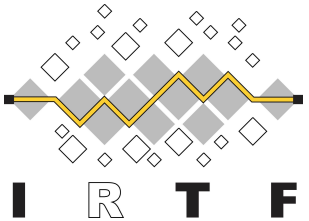
Note Well – Intellectual Property



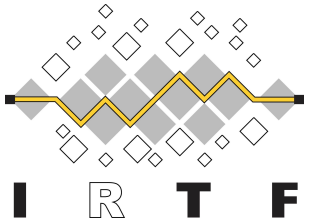
- **The IRTF follows the IETF Intellectual Property Rights (IPR) disclosure rules**
- By participating in the IRTF, you agree to follow IRTF processes and policies:
  - If you are aware that any IRTF contribution is covered by patents or patent applications that are owned or controlled by you or your sponsor, you must disclose that fact, or not participate in the discussion
  - The IRTF expects that you file such IPR disclosures in a timely manner – in a period measured in days or weeks, not months
  - The IRTF prefers that the most liberal licensing terms possible are made available for IRTF Stream documents – see RFC 5743
  - Definitive information is in RFC 5378 (Copyright) and RFC 8179 (Patents, Participation), substituting IRTF for IETF, and at https://irtf.org/policies/ipr

Note Well – Audio and Video Recordings



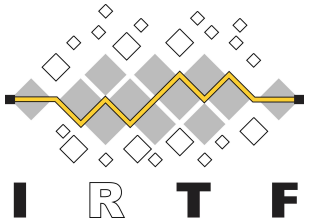
- The IRTF routinely makes recordings of online and in-person meetings, including audio, video and photographs, and publishes those recordings online
- If you participate in person and choose not to wear a red “do-not-photograph” lanyard, then you consent to appear in such recordings, and if you speak at a microphone, appear on a panel, or carry out an official duty as a member of IRTF leadership then you consent to appearing in recordings of you at that time
- If you participate online, and turn on your camera and/or microphone, then you consent to appear in such recordings

Note Well – Privacy & Code of Conduct



- As a participant in, or attendee to, any IRTF activity you acknowledge that written, audio, video, and photographic records of meetings may be made public
- Personal information that you provide to IRTF will be handled in accordance with the Privacy Policy at https://www.ietf.org/privacy-policy/
- 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
- See RFC 7154 (Code of Conduct) and RFC 7776 (Anti-Harassment Procedures), which also apply to IRTF

Goals of the IRTF



- The Internet Research Task Force (IRTF) focuses on longer term research issues related to the Internet while the parallel organisation, the IETF, focuses on shorter term issues of engineering and standards making

- **The IRTF conducts research; it is not a standards development organisation**

- While the IRTF can publish informational or experimental documents in the RFC series, its primary goal is to promote development of research collaboration and teamwork in exploring research issues related to Internet protocols, applications, architecture, and technology
- See “An IRTF Primer for IETF Participants” – RFC 7418

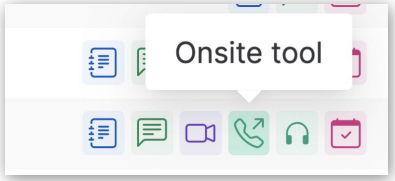
Administrativa

- Charter: https://datatracker.ietf.org/group/maprg/charter/
- Mailing List: maprg@irtf.org
  Subscriptions: https://www.irtf.org/mailman/listinfo/maprg
- Today's slides:
  https://datatracker.ietf.org/meeting/121/session/maprg/
- Meetecho: https://meetecho.ietf.org/client/?group=maprg
  - Please join Meetecho (lite or full version) from the room to sign in for the bluesheets (and enter the queue)!

Meeting Tips

In-person participants

- Make sure to sign into the session via Datatracker or the QR Code in this session.
- Use Meetecho (usually the “Meetecho lite”) client to:
  - join the mic queue
  - participate in shows of hands
- *Keep audio and video off if not using the onsite version.*



Remote participants

- Make sure your audio and video are off unless you are chairing or presenting during a session.
- Use of a headset is strongly recommended.

This session is being recorded

Other interesting IMC'24 paper https://conferences.sigcomm.org/imc/2024/accepted-posters/

Performance (latency, incast, QUIC)

Measuring Network Latency from a Wireless ISP: Variations Within and Across Subnets - *S. Sundberg, A. Brunstrom, S. Ferlin-Reiter, T. Høiland-Jørgensen, R. Chacón.*

Understanding Incast Bursts in Modern Datacenters - *C. Canel, B. Madhavan, S. Sundaresan, N. Spring, P. Kannan, Y. Zhang, K. Lin, S. Seshan.*

A Longitudinal Study of the Prevalence of WiFi Bottlenecks in Home Access Networks - *R. Sharma, N. Feamster.*

ReACKed QUICer: Measuring the Performance of Instant Acknowledgments in QUIC Handshakes - *J. Mücke, M. Nawrocki, R. Hiesgen, T. Schmidt, M. Wählisch.*

Security/TLS

Mutual TLS: Another Layer of Security or Not Really? - *H. Dong, Y. Zhang, H. Lee, K. Du, G. Tu, Y. Sun.*

DNS

Deciphering the Digital Veil: Exploring the Ecosystem of DNS HTTPS Resource Records - *H. Dong, Y. Zhang, H. Lee, S. Huque, Y. Sun.*

The Roots Go Deep: Resiliency of '.' Under Change - *F. Steurer, D. Wagner, D. Lachos, A. Feldmann, T. Fiebig.*

Email

Bounce in the Wild: A Deep Dive into Email Delivery Failures from a Large Service Provider - *R. Li, S. Xiao, B. Liu, Y. Lin, H. Duan, Q. Pan, J. Chen, J. Zhang, X. Liu, X. Lu, J. Shao.*

Routing

Collecting Self-reported Semantics of BGP Communities and Investigating Their Consistency with Real-world Usage - *Y. Liu, T. Wu, J. Wang, J. Wang, S. Zhuang.*

RPSLyzer: Characterization and Verification of Policies in Internet Routing Registries - *S. He, I. Cunha, E. Katz-Bassett.*

Agenda

9:30 Overview and Status - *Mirja/Dave*

9:35 Heads-up: Application Outcome Aware Root Cause Analysis - *Bjørn Ivar Teigen* (in-person; 5 min)

9:40 Heads-Up: DNS TTL's: some observations from the wild - *John Ronan* (in-person; 10 min)

9:50 Reverse-Engineering Congestion Control Algorithm Behavior - *Margarida Ferreira* (remote; 15 min)

10:05 Do CAA, CT, and DANE Interlink in Certificate Deployments? A Web PKI Measurement Study - *Pouyan Fotouhi Tehrani* (remote; 15 min)

10:20 Destination Reachable: What ICMPv6 Error Messages Reveal About Their Sources - *Johanna Ullrich* (remote; 15 min)

10:25 Seeds of Scanning: Exploring the Effects of Datasets, Methods, and Metrics on IPv6 Internet Scanning - *Grant Williams* (remote; 15 min)

~11:00 IoT Bricks Over v6: Understanding IPv6 Usage in Smart Homes - *Tianrui Hu* (remote; 15 min)