

Coding for efficient NetWork Communications Research Group (NWCRG)

Marie-José Montpetit, Vincent Roca July 27th 2020, IETF 108 online meeting

Welcome!

• Our goal:

Foster research in network and application layer coding to improve network performance

- Codes and coding libraries
- Protocols to facilitate the use of coding in existing systems
- Real-world use cases and work in progress

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 <u>RFC 5378</u> (Copyright) and <u>RFC 8179</u> (Patents, Participation), substituting IRTF for IETF, and at https://irtf.org/policies/ipr

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 <u>RFC 7154</u> (Code of Conduct) and <u>RFC 7776</u> (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

Administrivia

- Charter and documents
 - https://datatracker.ietf.org/group/nwcrg/charter/
- Github
 - https://github.com/irtf-nwcrg/rg-materials
- Mailing list
 - subscription: https://www.irtf.org/mailman/listinfo/nwcrg
- Material
 - Direct links from announcement IETF page:
 - https://datatracker.ietf.org/meeting/upcoming
 - Github repository:
 - https://github.com/irtf-nwcrg/rg- materials/tree/master/ietf108-2020-07-27 virtual

Administrivia (2)

• Session is being recorded



- Blue sheet is automatically filled based on Meetecho/datatracker logs
 - datatracker authentication

• Queue management: press the "raise hand" icon

Agenda

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00- Welcome, administrative and general matters
(Chairs) (10+5')
01- "Hackathon feedback"
(Vincent Roca) (5')
02- "Updates on Coding and congestion control in
transport" I-D
(Nicolas Kuhn) (10+5')
(https://datatracker.ietf.org/doc/html/draft-kuhn-
coding-congestion-transport)
03- "Next steps"
(Chairs, all) (20')
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Our group I-D news (1)

• Last miles:

- "Network coding for satellite systems"
 - passed IRSG review
 - version -14 currently "in IESG review"

On progress:

- "Coding and congestion control in transport"
 - see item 02-

Standby, action needed:

- "NC for CCN/NDN: Requirements and Challenges"
 - RG Last Call needed (with copy to ICNRG)
- "BATS Coding Scheme for Multi-hop Data Transport"
 - needs RG adoption call
- "Coding for QUIC" and "RLC Forward Erasure Correction (FEC) Schemes for QUIC"
 - To be discussed
- "Tetrys, an On-the-Fly Network Coding protocol"
 - To be discussed

Future meeting

• Hackathon will be held during IETF 109

• NWCRG will meet during IETF 109