

# Coding for efficient NetWork Communications Research Group (NWCRG)

Marie-José Montpetit, Vincent Roca July 27<sup>th</sup> 2020, 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:
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  - The IRTF prefers that the most liberal licensing terms possible are made available for IRTF Stream documents see RFC 5743
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- 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
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- As a participant or attendee, you agree to work respectfully with other participants; please contact the ombudsteam (<a href="https://www.ietf.org/contact/ombudsteam/">https://www.ietf.org/contact/ombudsteam/</a>) 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:
  - <a href="https://github.com/irtf-nwcrg/rg-">https://github.com/irtf-nwcrg/rg-</a> materials/tree/master/ietf108-2020-07-27 virtual

# 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