



Coding for efficient NetWork Communications Research Group (NWCRG)

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November 17th 2020, IETF 109 online meeting

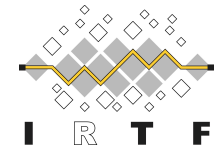
Welcome!

- Our goal:

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

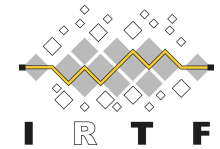
- Codes and coding libraries
- Protocols to facilitate the use of coding in existing systems
- Real-world use cases and work in progress

Note Well – Intellectual Property



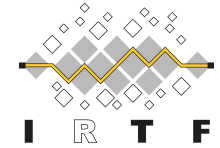
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Goals of the IRTF



- 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/nwcrp/charter/>

- **Github**

- <https://github.com/irtf-nwcrp/rg-materials>

- **Mailing list**

- subscription: <https://www.irtf.org/mailman/listinfo/nwcrp>

- **Material**

- Direct links from announcement IETF page:
- <https://datatracker.ietf.org/meeting/upcoming>
- Github repository:
- https://github.com/irtf-nwcrp/rg-materials/tree/master/ietf109-2020-11-17_online

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

00- Welcome, administrative and general matters
(Chairs) (10')

01- "BATS Coding Scheme for Multi-hop Data Transport" I-D
(Raymond Yeung) (10+5')
<https://datatracker.ietf.org/doc/draft-yang-nwcr-g-bats/>

02- "Coding and congestion control in transport" I-D
(Nicolas Kuhn) (10+5')
<https://datatracker.ietf.org/doc/draft-irtf-nwcr-g-coding-and-congestion/>

03- "Repair patterns for sliding window codes"
(Morten V. Pedersen) (10')

04- Wrap-up, next steps
(Chairs, all) (5')

Our group I-D news (1)

- **Last miles:**
 - "Network coding for satellite systems"
 - passed IESG review
 - I-D updated in -15 to take IESG comment into account
 - we're approaching the end..
- **RG call results:**
 - "NC for CCN/NDN: Requirements and Challenges"
 - RG Last Call done (Sept.), with copy to ICNRG
 - suggestion: write shepherd and move it to IRSG review
 - "BATS Coding Scheme for Multi-hop Data Transport"
 - RG adoption call launched (Sept.)
 - feedback received (Colin, Emmanuel) and ID updated accordingly
 - we need to decide... see item 01-

Our group I-D news (2)

- On progress:
 - “Coding and congestion control in transport”
 - see item 02-
- Standby, action needed:
 - “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

- no hackathon held during IETF 109. We'll try to have one during IETF 110 to finalize the SWIF codec
- NWCRG will meet during IETF 110
- still planning to close the RG mid-2021