

# **Next steps for NWCRG (for discussion)**

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# What has been done so far / milestones

- NWCRG restarted at IETF 99 – Prague – 2017-07, arrival of Marie-José

## Milestones

### Date ⇄ Milestone

Mar 2019 Draft: NC and robust tunnelling (MJM/DC/VR and others) (status: informational)

Nov 2018 Draft: NC and ICN: an overview and associated research challenges (CW/HA) (status: informational)

Nov 2018 Draft: NC and Congestion Control (MJM editor) (status: informational)

Nov 2018 Draft: NC adoption challenges (VR/MJM) (status: informational)

Jul 2018 Draft: Common coding API (VR editor, contributors ALL) (status: informational)

Jul 2018 Draft: NC and satellite: an overview and associated research challenges (EL/NK) (status: informational)

Jul 2018 Draft: NC and QUIC (MJM editor/IS) (status: informational)

Jul 2018 Existing NC solutions (code + basic protocol if applicable) (status: informational) - 1 draft per solution: 1 adopt as RG item

# Milestones <https://datatracker.ietf.org/group/nwcrq/about/>

- “NC taxonomy” [RFC 8406](#) **published**
- Existing NC solutions (code + basic protocol if applicable)
  - RLC sliding window FEC **published** (rfc 8680/8681/8682, TSVWG)
  - BATS: **active** I-D
  - RLNC: **abandoned** by the authors (code-on IPR status unclear although they officially claimed there’s nothing)
  - Tetrys: **active** I-D
- Draft: NC and QUIC
  - two **active** I-Ds (see later)
- Draft: NC and satellite: an overview and associated research challenges
  - **almost done** (IESG review)
- Draft: Common coding API
  - SWIF codec **on progress** (hackathon)
  - common API I-D (could be reactivated)

## Milestones (2) <https://datatracker.ietf.org/group/nwcrq/about/>

- Draft: NC adoption challenges
  - a **good start**: github nwcrq repository includes “eight simple ideas to start understanding FEC and Network Coding for newcomers”  
See: <https://github.com/irtf-nwcrq/rg-materials>
- Draft: NC and Congestion Control
  - RG item I-D **on progress**
- Draft: NC and ICN: an overview and associated research challenges
  - **active** RG item I-D (LC expected)
- Draft: NC and robust tunnelling
  - **no**, but could have been done in LOOPS

# What's next? Chairs' proposal (TBD)

- Where is NC research going?
  - Focus on a global solution, coding being only a subset of it
  - ... for efficient communications
  - ... for efficient storage
  - Congestion control / flow control are good examples
- We (chairs) suggest:
  - to **adopt** as RG-item most/all remaining I-Ds
  - to **publish** them (Informational RFCs)
    - NB (all): “if you want your I-Ds to be reviewed, you need to review that of others”
  - and **close** the group (in one year from now?)

# Particular cases

- FEC for QUIC
  - QUIC WG already 1.5 year behind of schedule!
  - cannot wait to transfer I-Ds to the WG
  - instead: publish I-Ds almost "as is", with the risk of requiring technical adjustments to reflect QUIC evolution
- FEC at LOOPS?