Next steps for NWCRG (for discussion)
What has been done so far / milestones

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

### Milestones

<table>
<thead>
<tr>
<th>Date</th>
<th>Milestone</th>
<th>Status</th>
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<tbody>
<tr>
<td>Mar 2019</td>
<td>Draft: NC and robust tunnelling (MJM/DC/VR and others) (status: informational)</td>
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<tr>
<td>Nov 2018</td>
<td>Draft: NC and ICN: an overview and associated research challenges (CW/HA) (status: informational)</td>
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<td>Draft: NC and Congestion Control (MJM editor) (status: informational)</td>
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<td>Draft: NC adoption challenges (VR/MJM) (status: informational)</td>
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<tr>
<td>Jul 2018</td>
<td>Draft: Common coding API (VR editor, contributors ALL) (status: informational)</td>
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<td>Draft: NC and satellite: an overview and associated research challenges (EL/NK) (status: informational)</td>
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<td>Jul 2018</td>
<td>Draft: NC and QUIC (MJM editor/IS) (status: informational)</td>
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<td>Jul 2018</td>
<td>Existing NC solutions (code + basic protocol if applicable) (status: informational) - 1 draft per solution: adopt as RG item</td>
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Milestones [https://datatracker.ietf.org/group/nwcrg/about/](https://datatracker.ietf.org/group/nwcrg/about/)

- “NC taxonomy” [RFC 8406](https://datatracker.ietf.org/doc/rfc8406/) 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/nwcrg/about/]

• Draft: NC adoption challenges
  • a good start: github nwcrg repository includes “eight simple ideas to start understanding FEC and Network Coding for newcomers”
  See: [https://github.com/irtf-nwcrg/rg-materials](https://github.com/irtf-nwcrg/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?
  o Focus on a global solution, coding being only a subset of it
  o … for efficient communications
  o … for efficient storage
  o Congestion control / flow control are good examples

• We (chairs) suggest:
  o to adopt as RG-item most/all remaining I-Ds
  o to publish them (Informational RFCs)
    o NB (all): “if you want your I-Ds to be reviewed, you need to review that of others”
  o 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?