

Inputs to NC architecture

For discussion purposes...

Vincent Roca (Inria, France)

Marie-José Montpetit (MIT MediaLab, US)

Jonathan Detchart (ISAE, France)

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Doing things in the right (?) order

- STEP 1: define and agree on terminology
 - almost done, but needs to be **formalized**
 - TODO: add proposed terminology to existing I-D
<http://tools.ietf.org/id/draft-firoiu-nwcrp-network-coding-taxonomy-00.txt>
- STEP 2: gather use-cases and examples
 - almost done
 - TODO: document it in an informational I-D
 - **single/multi-sources, intra/inter-flows, e2e/in-net recoding, single/multi-paths, uni/multi/broadcast, unidirectional/with return paths, transport/network/MAC layer + examples**

Doing things in the right order (2)

- STEP 3: specify signaling aspects
 - “NC FEC Schemes BB” (similar to [rfc5052](#) “FEC BB”)
 - defines rules followed by future FEC schemes
 - defines signaling, but not necessarily the details that may be FEC Scheme specific:
 - symbol idf, in-band/out-of-band signaling, scheme idf, etc.
 - far from trivial as it needs to apply to all use-cases
 - TODO: dedicated I-D
 - “Common NC header BB” for transport-level PI (inspired from LCT, [rfc5651](#))
 - defines a common header format applicable to many use-cases and PIs...
 - TODO: dedicated I-D
 - Open Point: can network-level NC share this CNCH?

Doing things in the right order (3)

- “Common NC header for embedded platforms BB”
 - can be pretty different from the previous general purpose one due to specific constraints
 - **TODO: dedicated I-D**
- **STEP 4: specify building blocks**
 - many BBs will depend on STEP 3 outputs
 - **TODO: several FEC Scheme BBs, window management BB, compressed Symbol ID list BB, Congestion Control (when needed) etc.**

Methodology

- create interest
 - everybody's welcome
- use a shared repository for the docs
 - github
- have all discussions on nwcrg mailing list
 - no private discussions please
- define milestones
 - IETF93: I-Ds for steps 1 and 2 should be available for group validation, ideas for steps 3 presented
 - TBD