IETF Hackathon: SWiF Codec

IETF 104
23-24 March, 2019
Prague



A codec for what?

- recover from packet losses thanks to FEC
- reduce added latency compared to "traditional" block FEC codes (e.g., Reed-Solomon)
 - key asset of sliding encoding window codes
- strong links with NWCRG and RLC FEC scheme I-D (TSVWG)

Hackathon goals

Our second Hackathon!

- 1- design a reference, open-source, free codec
 - none available
 - facilitate FEC tests and adoption
- 2- challenge our "generic API" I-D

Achievements

- fixed several issues in "generic API" I-D
 - 4 corrections + 2 open points
- encoder done, tests on-going
- C test/demo application done, to be tested
- python wrapper for tests/demos in progress
- decoder in progress

Wrap Up

A unique 100% French-speaking, 40% women, team:

- Marie-José Montpetit
- Cédric Adjih
- Oumaima Attia
- François Michel
- Vincent Roca (lead)

https://github.com/irtfnwcrg/swif-codec

NWCRG IRTF research group