IETF Hackathon: SWiF Codec

IETF 104
23-24 March, 2019
Prague

Hackathon goals

Our second Hackathon!

1- design a **reference, open-source, free codec**
- RLC-like first, RLNC-like in a second step
- none available
- facilitate FEC tests and adoption

2- challenge our **"generic API" I-D**

SWiF codec team

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

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

Thanks !

*first timers@ietf hackathon

Achievements

- encoder **almost done, tests on-going**
- C test/demo application **almost done, tests on progress**
- python wrapper for tests/demos **in progress**
- decoder **started**

Achievements (2)

- **fixed several issues** in "generic API" I-D
  - 4 corrections
  - 5 open points

  encoder_reset_coding_window() usefulness / esi_t type / build_repair() pointer type / callback at session end? / swif_encoder_get_coding_window_information() format

  https://github.com/irtf-nwcrg/rg-materials/blob/master/ietf104-2019-03/ietf104_swif_hackathon.md

Next steps

- **3rd hackathon** at IETF105/Montreal
  - goal: interoperable RLC-like encoder/decoder
  - code cleanup/unitary tests/applications

- we'll then be ready for the RLNC-like codec
  - @IETF106?

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