IETF Hackathon: SWiF Codec

IETF 105

20-21 July, 2019

Montreal

Hackathon goals

Our third 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**

IETF Hackathon – SWiF Codec

SWiF codec team

A unique 100% French-speaking team:

- Cédric Adjih (part time)
- François Michel (Saturday, remote)
- Vincent Roca (lead) (Sunday)

- plus contributions from Oumaima Attia since previous hackathon

Thanks !

Achievements

- Change for a Simplified BSD licence (in line with BCP 78 and the IETF Trust's Legal Provisions)

- encoder **done for most of it**

- decoder **in progress**

- C demo application **almost done**

- python wrapper for tests/demos **in progress**

IETF Hackathon – SWiF Codec

Achievements (2)

- **fixed several issues** in "generic API" I-D
    - 1 correction
    - 4 open points remain

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

    https://github.com/irtf-nwcrg/rg-materials/blob/master/ietf105-2019-07_montreal/ietf105_swif_hackathon.md

Next steps

- **4th hackathon** at IETF106/Singapore
  - goal: interoperable RLC-like encoder/decoder
  - code cleanup/unitary tests/applications

- we'll then be ready for the RLNC-like codec
  - @IETF107?