

IETF Hackathon: SWiF Codec

IETF 106
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Singapore



A codec for what?

- recover from **packet losses** thanks to FEC
- **reduce added latency** compared to “traditional” block FEC codes (e.g., Reed-Solomon)
 - thanks to sliding encoding window approach
- strong links with **NWCRG, RLC (RFC 8681^{*})** (TSVWG)

(*) almost done...

Hackathon goals

Our 4th Hackathon!

- 1- design a **reference, open-source, free codec**
 - facilitate FEC tests and adoption
- 2- challenge our **“generic API” I-D**

Achievements

- **fixed one issue** in “generic API” I-D
- the hard part: decoder
 - integrated a linear system decoding lib (Cédric A. previous works)
 - alignment on SWiF concepts and requirements
 - still in progress but **much work done**
- **progress on** python wrapper + C test application

Wrap Up

Team:

- Cédric Adjih
- Oumaima Attia
- Vincent Roca

<https://github.com/irtf-nwcrgr/swif-codec>

[NWCRG](#) IRTF research group