

- 1- Simple Reed-Solomon***
- 2- Simple LDPC-Staircase***
- 3- Reed-Solomon with RTP framing***

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Simple Reed-Solomon FEC Scheme for FECFRAME

draft-ietf-fecframe-simple-rs-00



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Goals (reminder)

- specifies how to use Reed-Solomon codes in FECFRAME
 - KISS (keep it simple and stupid) approach
 - RS codes over $GF(2^m)$, m in $\{2.. 16\}$,
 - in practice, focus on $m = 4, 8$ (default) and 16
 - complements our RFC 5510 (RMT WG)
- DOES NOT consider RTP framing of FEC repair packets
 - see next presentation and draft-galanos-fecframe-rtp-reedsolomon-03.txt

Status

- now WG Item document
 - see Greg's email, sent January 5th
- changes WRT previous I-D
 - **“security considerations”** section completely rewritten
 - ...since I'm now happy with the new framework's security section 😊
 - complements the framework's section with Reed-Solomon specific considerations instead of repeating things
 - added an **“operations and management considerations”** section
 - focuses on Finite Field Size (m) Recommendations
- as promised, document is ready for WGLC

Simple LDPC-Staircase FEC Scheme for FECFRAME

draft-ietf-fecframe-ldpc-00



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Goals (reminder)

- specifies how to use LDPC-staircase codes in FECFRAME
 - KISS (keep it simple and stupid) approach
 - complements our RFC 5170 (RMT WG)
 - provides a single scheme: LDPC-Staircase for arbitrary packet flows
- DOES NOT consider RTP framing of FEC repair packets
 - left to future works if the need arises...

Status

- still needs **formal** validation as WG Item document
 - several motivated supports as requested
 - Pr. Jérôme Lacan (co-author)
 - Valentin Savin, PhD
 - accepted as WG Item (see Greg's email, sent Jan. 5th)
- changes WRT previous I-D
 - **“security considerations”** section completely rewritten
 - complements the framework's section with Reed-Solomon specific considerations instead of repeating things
 - added an **“operations and management considerations”** section
 - gives insights on erasure recovery and speed performances
 - gives insights on when and how to use this FEC scheme

Status (cont')

- as promised, document is ready for WGLC

RTP Payload Format for Reed Solomon FEC

draft-galanos-fecframe-rtp-reedsolomon-03

S. Galanos (Radvision)

O. Peck (Kaminario)

V. Roca (INRIA)

I'm the new editor

Goals (reminder)

- complements draft-ietf-fecframe-simple-rs-00
 - shares with the simple-rs I-D:
 - RS codes over $GF(2^m)$, m in $\{2.. 16\}$,
 - in practice, focus on $m = 4, 8$ (default) and 16
 - RFC 5510 (RMT WG) for code specifications
- differences:
 - limited to a single, RTP-based, source flow
 - defines an RTP framing of FEC repair packets within one or several FEC repair flows

Status

- submitted as individual I-D
 - but accepted as WG Item document
 - see **Greg's email, sent January 5th**
- changes WRT previous I-D
 - a lot has been done...
 - re-design of the **repair FEC Payload ID** encoding
 - motivated by the **FEC Framework discussion on**
“managing losses between the sending application and the FECFRAME instance”
<http://www.ietf.org/mail-archive/web/fecframe/current/msg00841.html>
 - previous solution based on an RTP SN table
 - new solution only requires all RTP source packets of a block to be available at the FECFRAME instance
 - text aligned with other Reed-Solomon document

Status... (cont')

- what's next?

- some work still remains to be done

- approx. 2 full days of work

- next time will be submitted as WG Item