Fragmentation update for 6LoWPAN

draft-ietf-6lo-minimal-fragment
draft-ietf-6lo-fragment-recovery

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6lo standard work

Performance and Reliability improvements to 6LoWPAN Fragmentation

- RFC 4944 (6LoWPAN)
  - Defines a minimal Fragmentation
  - End-to-End in Mesh Under, one hop in Route Over
- draft-ietf-6lo-minimal-fragment (WGLC completed in May 2019)
  - Enables Fragment Forwarding for Streamlining
  - Builds upon draft-ietf-lwig-6lowpan-virtual-reassembly
- draft-ietf-6lo-fragment-recovery (WGLC completed in June 2019)
  - Provides 6LoWPAN route-over end-to-end reliability
  - Selective retry, flow control
  - Requires new fragment formats
Changes in draft-ietf-6lo-minimal-fragment

- Removed claims on VRB size, replaced by abstract content
- Improved security section about DoS attacks
- When to remove entries (Yasuyuki)
- Clarifications, e.g., only the first fragment is routed (Georgios)
- Christian Hopfner working on Dissector
Changes in draft-ietf-6lo-fragment-recovery

- Reworded that the sequence is not that of Fragments but that of bits (Laurent)
  e.g., fragment 13 can be retried as fragments 13 and 27 if MTU goes down
- Indicated that the nature of the datagram-tag is changed (Laurent)
- PMTUD is out of scope though
- Defined all terms
- Also clarified that only the first frag is routed and other follow that path
- Added ref to cocoa security section (Carles)
- Lot of clean up (also Carles) e.g., double useECN parameter
Next steps

• In the hands of the shepherd (Carles)