Zero Checksum for SCTP
draft-tuexen-tsvwg-sctp-zero-checksum-00

Michael Tüxen (tuexen@fh-muenster.de)
Victor Boivie (boivie@google.com)
Florent Castelli (orphis@google.com)
Randell Jesup (randell-ietf@jesup.org)
Motivation

• SCTP uses CRC32c to detect errors during transmission. Motivated by SCTP/IPv4 and SCTP/IPv6.

• The CRC32c provides no value when SCTP/DTLS (WebRTC) is used but uses CPU resources for computing.

• During the handshake, endpoints declare that they handle 0 as a valid checksum by putting the Zero Checksum Accepted parameter in the INIT and INIT ACK chunks.

• This allows, in a backwards compatible way, to use 0 as the checksum reducing the CPU resources needed.
Next Steps

• At the hackathon:
  – Add support to Wireshark
  – Add support to packetdrill
  – Add support to the SCTP FreeBSD implementation and the usrsctp implementation.

• Incorporate feedback from Mike, Gorry, and IANA.

• WG adoption?

• Early assignment of Parameter Type?