Zero Checksum for SCTP

draft-ietf-tsvwg-sctp-zero-checksum-05

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Motivation

- SCTP uses CRC32c for providing data integrity.
- The CRC32c provides no value when SCTP/DTLS (WebRTC) is used, but consumes CPU resources for computing.
- Allow, in a backwards compatible way, to use zero as an incorrect CRC32c reducing the CPU resources.
Changes to Address WGLC Comments

• Various editorial changes.
• **MUST NOT interfere with middle boxes**
  MUST NOT result in path failures for more than a couple of RTTs
• The IANA registry for "Error Detection Method" uses Specification Required policy.
Implementation Status

• Implemented in the FreeBSD kernel and the usrsctp userland stack.
• Initial version implemented in dcSCTP.
• Patch available for the Pion SCTP stack.
• Support available in packetdrill and Wireshark.
• Test suite for packetdrill available at https://github.com/tsvwg/zero-checksum
Next Steps

• Address any upcoming feedback.