

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 usersctp 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.