

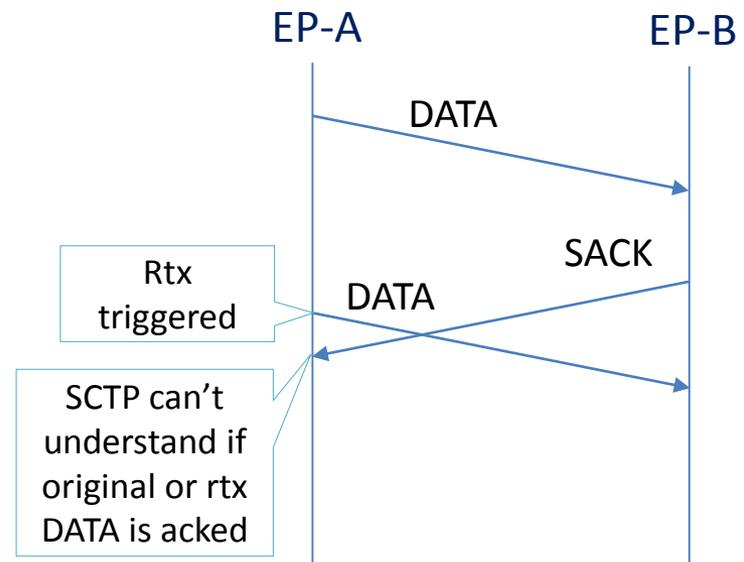
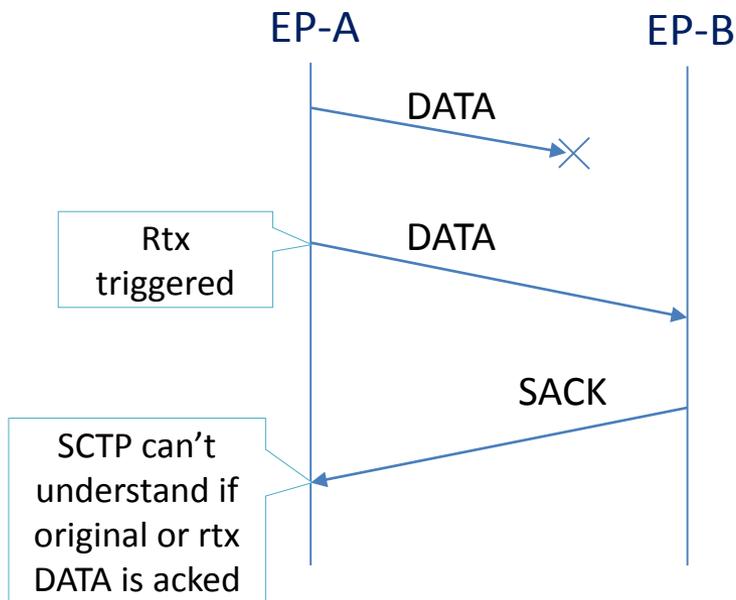
Retransmit bit for SCTP DATA, I-DATA and SACK

draft-proshin-tsvwg-sctp-rtx-bit

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Motivation

- Sctp cannot understand if SACK was sent in response to the originally sent DATA or retransmitted one
- Main use cases:



Internet Draft, -00 version

Internet Engineering Task Force
Internet-Draft
Updates: 4960 (if approved)
Intended status: Standards Track
Expires: June 7, 2019

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draft-proshin-tsvwg-sctp-rtx-bit-00

Abstract

This document defines a method which helps an SCTP sender to understand when a received SACK acknowledges the original transmission of a TSN or its retransmission. It is done by specifying a new bit, called Retransmit bit (R-bit), in the header of DATA, I-DATA and SACK chunks. The bit is used when a TSN is retransmitted and returned back in the acknowledgement.

Retransmit bit (R-bit) for SCTP

- R-bit is reserved in DATA, I-DATA and SACK

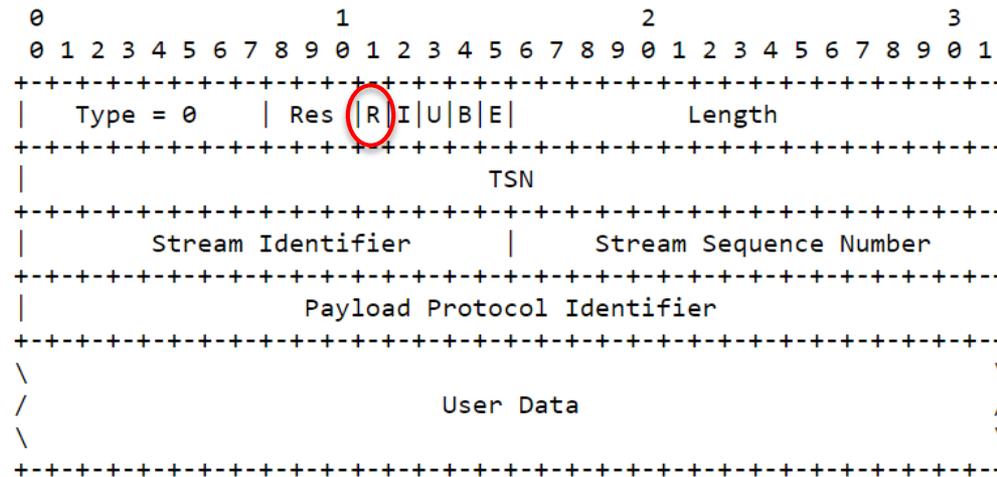


Figure 1: Extended DATA chunk

- R-bit support requires negotiation in INIT/INIT ACK
- If negotiated, SCTP SHOULD set the R-bit every time it retransmits DATA or I-DATA
- When DATA or I-DATA with the R-bit is received, SCTP MUST immediately respond by SACK with R-bit

Challenges

- Does not help when DATA or I-DATA is retransmitted multiple times
- Adds complexity in case SCTP packet carries DATA or I-DATA chunks with and without R-bit

Status

- Some TBDs in the draft, e.g. state recovery after spurious retransmission is detected
- Implemented in Ericsson SCTP and enabled between Ericsson SCTP endpoints
- Local patch for LKSCTP (without negotiation) and first interoperability

Future

- Work on TBDs
- Run interoperability with patched LKSCTP
- Feedback from WG and other implementers
- WG adoption