

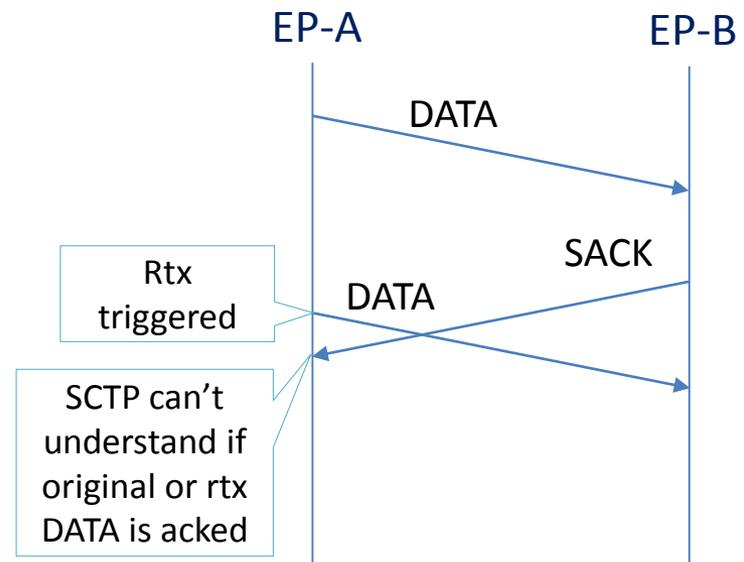
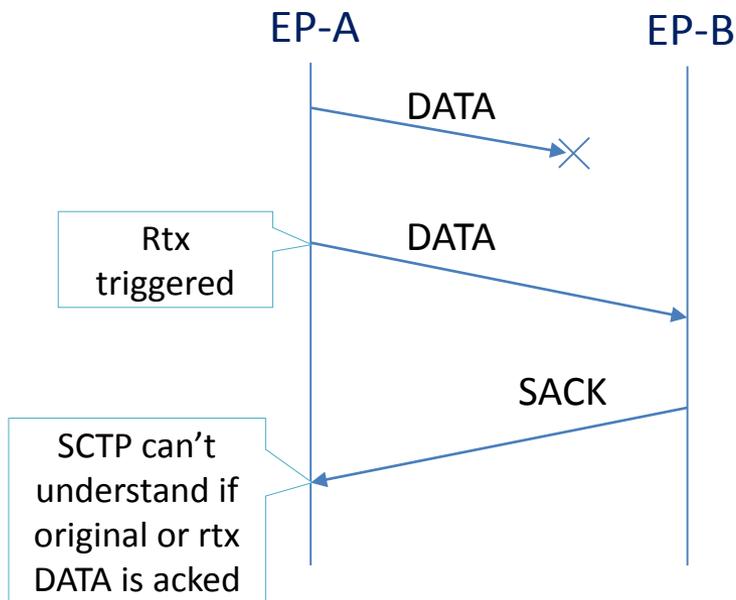
Retransmit bit for SCTP DATA, I-DATA and SACK

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:



Retransmit bit (R-bit) for SCTP

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

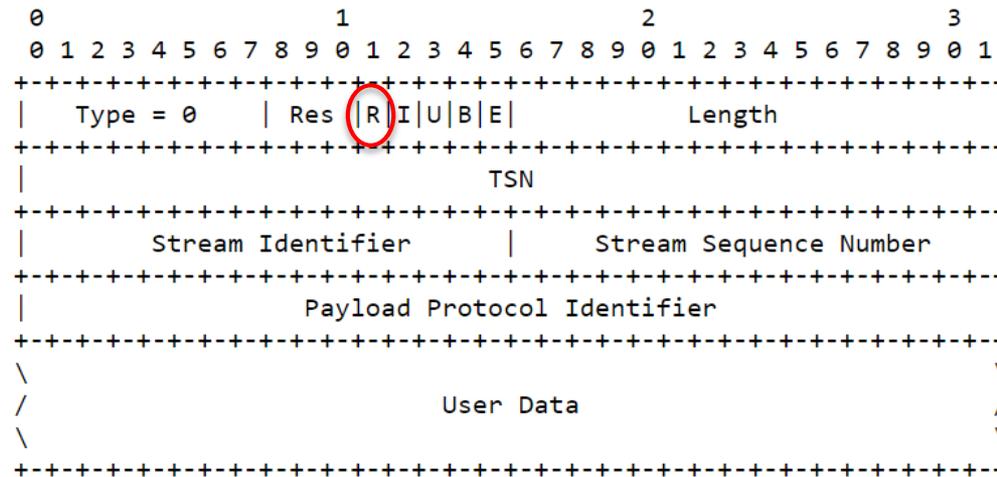


Figure 1: Extended DATA chunk

- 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

Updates since IETF 104

- Draft version -01 submitted
 - Added the description of SCTP improvements from the R-bit mechanism
 - Added clarifications to the issue with multiple retransmissions
 - Editorial improvements
- Implemented the negotiation mechanism of the R-bit (not in the live network though)
- Collection of data with signaling traffic profiles is started
- Interoperability with LKSCTP is ongoing

SCTP Improvements from R-bit

- SCTP mechanisms that can be improved by the support of the R-bit
 - RTO Calculation
 - Path Failure Detection
 - Quick Failover Algorithm (SCTP-PF)
- Detection of spurious retransmissions (even in case of multiple retransmissions)
- Calculation of Maximum Ack Delay

Implementation Status

- Implemented in Ericsson SCTP and enabled between Ericsson SCTP endpoints
- Local patch for LKSCTP (without negotiation), used in interoperability tests

Plans

- Close all TBDs in the next version
- Collect and share data of the improvements from the mechanism (signaling traffic profiles)
- More interoperability with patched LKSCTP
- WG adoption