

Status on SACK and DSACK Usage Documents

IETF 55

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Overview

- SACK-based Loss Recovery
- Using DSACKs

SACK-based Loss Recovery

- draft-allman-tcp-sack-13.txt
 - ▷ With: Ethan Blanton, Kevin Fall, Lili Wang
- Lots of corner cases nailed down (by Lili Wang & Ken Calvert)
- New and easier method for determining the number of bytes in the network
 - ▷ Old method: Estimate the number of things in the network and then subtract things known not to be in the network
 - ▷ New method: Start from zero and count the things we know are still in the network
 - Basically equivalent -- just a lot easier to codify

SACK-based Loss Recovery (cont.)

- The algorithm supports threshold retransmission
 - ▷ removed at one point, but added back due to popular demand
- We think this is ready for WGLC. Do you?

Using DSACKs

- draft-blanton-dsack-use-02.txt
 - ▷ With: Ethan Blanton
- The goal is to specify a straightforward way to use DSACKs to determine when a TCP (/SCTP) connection is in a situation where it unnecessarily reduced the congestion window.
- We don't want spurious retransmits to mask real loss.
 - ▷ So, our scheme waits until the end of recovery before determining whether or not the CC state can be reverted.

Using DSACKs (cont.)

- This document only specifies the detection of cases when cwnd was needlessly halved.
- What to do in that case is left as future work.
- Related work: Eifel, F-RTO, etc.
- Comments?