TCP New Reno

"NewReno" TCP

NewReno is an improvement on Reno TCP, which improves the performance of handling loss of multiple segments in a single round-trip time in the absence of SACK. In particular, NewReno modifies Reno's Fast Retransmit and Fast Recovery algorithms.

According to results from studies in 2000 using *TBIT* (TCP Behavior Inference Tool), NewReno has been widely implemented in operating systems, including Linux (since 2.1.x), Solaris (since 2.6), AIX and various BSD variants. Note that most of these systems also implement SACK, which handles multiple-loss situations even more efficiently.

The original RFC 2582 (1999) was replaced with RFC 3782 in 2004, which clarifies the Fast Retransmit behavior to be used. In April 2012, it was replaced by RFC 6582 which adds a few small changes, including one to address a performance degradation in the corner case of FlightSize=0.

References

- RFC 6582, *The NewReno Modification to TCP's Fast Recovery Algorithm*, T. Henderson, S. Floyd, A. Gurtov, Y. Nishida, April 2012
- *Questions about NewReno Deployment*, S. Floyd, October 2000, http://www.icir.org/floyd/newreno-questions.html

– Main.SimonLeinen - 28 Nov 2006 - 09 Apr 2012