ABSTRACT

TCP rate control is a new technique for transparently augmenting end-to-end TCP performance by controlling the sending rate of a TCP source. The sending rate of TCP source is determined by its window size, the round trip time and the rate of acknowledgment. It controls the rate of TCP packets by controlling window size and the rate of acknowledgment based on congestion environment.

This thesis presented the comparison of the simulation of TCP rate control and standard TCP. This thesis separated the simulation into 2 categories, single hop and multi hop topology with various link speeds. In the simulation of both topologies with 14 cases, the adjustment of the bandwidth is presented to make a congested environment. The result of both topologies has shown that using TCP rate control technology give higher performance than standard TCP in term of sending more TCP packets in congested environment.