

Progress in various TCP variants (February 2009)

ABSTRACT

Transport Control Protocol (TCP), a basic communication language, consists of a set of rules that control communication. There are many versions of TCP which modified time to time as per need. Initially we discuss the basic functions of TCP and their role to control the congestion then graphically examine slow start, congestion avoidance, fast retransmission and fast recovery. This paper compares the performance of different TCP variants specifically Tahoe, Reno, New Reno, Westwood, Selective Acknowledgment (SACK), Forward Acknowledgement (FACK) and Vegas. TCP Vegas algorithm is explained with new structure mechanism and new congestion avoidance and modified slow start mechanisms. Subsequently, a table derived evaluates TCP variants on the basis of algorithm. We conversed the progress, and evaluated advantages and disadvantages of above TCP variants.

Keyword: Congestion avoidance; Fast recovery; Fast retransmission; Slow start