Abstract

Congestion is a serious and major problem in data communication networks, because congestion can waste the bandwidth utlilization and if not taken care well can cause the network collapse. For that reason congestion control algorithm is needed like TCP that implemented it in transport protocol level in end-to-end connection. There are four TCP control congestion algorithms[6] : slow start, congestion avoidance, fast retransmit and fast recovery. Those four algorithms control congestion well enough, but their performance can be increased more like slow start algorithm that fixed by smooth start algorithm [8]. This paper analyze the effect of using CANIT algorithm in TCP as an effort to increase the TCP Congestion Avoidance performance using simulation in Network Simulator 2. Performance measure of interest in this paper are fairness, throughput, link utilization and congestion frequency. Result of the analysis proves that CANIT algorithm gives better performance than TCP Congestion Avoidance not in all conditions,but in conditon when the network has many connections with large RTTs differentiation using the same shared bottleneck link.

Keywords : congestion control, CANIT , NS-2