

INTEROPERABILITY OF TCP VEGAS WITH TCP RENO

P. CHENNA REDDY AND P. CHANDRA SEKHAR REDDY

Abstract

TCP is a protocol used by many Internet applications. Among the TCP implementations, TCP Reno is widely used, but is unstable. TCP Vegas is a stable protocol expected to replace TCP Reno as transport protocol. TCP Vegas is conservative, and performs well when there is scarcity of bandwidth, and when operated separately. But it fails to utilize the increasing bandwidths, particularly when interoperated with TCP Reno. This problem is widely known as interoperability problem. In this paper reasons for the interoperability problem are determined. In particular, which of the four inter-wined algorithms SlowStart, CongAvoidance, FastRetransmit, and FastRecovery has to be improved is identified. For simulation NS2 is used and graphs are generated using Xgraph.

Keywords : TCP Vegas, TCP Reno, congestion, interoperability, NS2