Abstract

Transmission Control Protocol (TCP) is a widely used end-to-end transport protocol in the Internet. This End to End delivery in wired (Guided) as well as wireless (Unguided) network improves the performance of transport layer or Transmission control Protocol (TCP) characterized by negligible random packet losses. This paper represents tentative study of TCP congestion control principles and mechanisms. Modern implementations of TCP hold four intertwined algorithms: slow start, congestion avoidance, fast retransmits, and fast recovery in addition to the standard algorithms used in common implementations of TCP. This paper describes the performance characteristics of four representative TCP schemes, namely TCP Tahoe, Reno, New Reno and Vegas under the condition of congested link capacities for wired network as well as wireless network.

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**Index Terms**

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