Abstract

Effectively and fairly allocating resources to the competing users in a network is a major issue to meet the demand for higher performance nowadays. Queue management enhances the efficiency of transfers and cooperates with Transmission Control Protocol (TCP) in adapting the intense flow of the congestion in the network. The shared resources of a network are bandwidth of the link and queues on the routers and switches. As too many packets are queued awaiting transmission, the queues overflow and the packets have to be dropped which results into congestion. The queue management algorithm, which is applied to a router, plays an important role in providing Quality of Service (QoS). In this paper, we have presented a simulation based comparison and evaluation of four popular queue management schemes: Stochastic Fair Queuing (SFQ), Random Early Detection (RED), Random Exponential Marking
(REM) and Droptail in terms of packet drop rate and delay. Simulation is done using Network Simulator (ns2.34) Our Simulation results indicate that REM performed better in terms of packet drop rate and RED performs better in terms of end-to-end delay.

References

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Index Terms

Computer Science

Communication Systems

Keywords

RED  SFQ  REM  Droptail  Packet drop rate  ns2