Abstract

In order to improve the performance of congested routers, an Active Queue Management (AQM) is proposed. AQM can potentially reduce packet loss rate in the Internet. This is used to control congestion at the router, where packets are dropped before queue become full. A new framework of AQM, namely Modified NEWQUE (MNEWQUE) active queue management algorithm supporting explicit congestion notification (ECN), is developed by changing constant factor K in NEWQUE AQM. The objective of the new algorithm is to improve performance of congested routers by keeping low queuing delay, packet drop rate low, link utilization high, and link utilization stable. The MNEWQUE AQM is implemented with help of ns2 simulator. The simulation shows that the proposed design outperforms other AQM methods in terms of queuing delay, packet loss, and link utilization.

Reference

MNEWQUE: A New Approach to TCP/AQM with ECN


Index Terms

Computer Science

Networks

Key words

Active queue management

Congestion control
Explicit Congestion Notification (ECN)

Queuing Delay

Link Utilization