Abstract

In Mobile Ad hoc networks (MANET) traditional congestion control mechanism encounters new challenges such as packet losses, bandwidth degradation and frequent link failures. Congestion degrades the performance of mobile ad hoc network (MANET) and hence it can be greatly reduced by using multipath routing and rate control techniques. In this paper, a multipath rate based congestion control algorithm is proposed. The proposed algorithm has rate estimation and rate control mechanisms in which the traffic rate is adjusted based on the estimated rate. The estimate rate can be obtained from the intermediate nodes by the destination node which in turn forward this information to the source. Simulation results show that the proposed rate control algorithm outperforms the traditional congestion control techniques in terms of throughput and packet delivery ratio.

References

Multipath Rate based Congestion Control for Mobile Ad Hoc Networks

Network Simulator, http://www.isi.edu/nsnam/ns

Index Terms

Computer Science  Wireless

Keywords

MANET  Congestion  Multipath Routing  Load Balancing  Rate Control