Abstract

In mobile ad hoc network (MANET), congestion is one of the most important constraints that deteriorate the performance of the whole network and routing capability of AOMDV protocol. Multipath routing allows the establishment of multiple paths between a single source and single destination node. The multipath route establishment uses the method that discerns multiple multi hops communication between source and destination. Multipath routing can balance the load better than the single path routing in ad hoc networks, thereby reducing the congestion by dividing the traffic in more than two paths. This research presents a new approach of rate control based buffer enhancement congestion control mechanism for avoiding congestion in network communication flows. In this scheme the store and forwarding capability of nodes are enhanced by varying the packet capacity according to incoming data. The AOMDV protocol performance is also enhanced and the packet loss due to higher data rate and respective storing capacity. The performance of normal AOMDV is measured on the basis of load handling capability of nodes in network and through performance matrices. The performance of original AOMDV and proposed scheme with AOMDV or proposed AOMDV is considered. The proposed AOMDV is showing the better performance that has measured through performance.
matrices.

References

- Jingyuan Wang, Jiangtao Wen et. al. in his work titled "An Improved TCP Congestion Control Algorithm and its Performance;" 2011 IEEE.
- E. Lochin, G. Jourjon, S. Ardon P. Senac, "Promoting the Use of Reliable Rate


Index Terms

Computer Science

Networks

Keywords

Congestion AOMDV Buffer Multipath Load balancing Routing