Abstract

An ad-hoc network is a multi-hop wireless network system where all the nodes cooperatively maintain the network connectivity without any centralized infrastructure. If these nodes in the network cannot remain in their same positions means position various dynamically, that is called a mobile ad-hoc network (MANET) system. Efficient protocols are used here to forward data packets with very low packet loss. In this paper, an adaptive routing algorithm is proposed in MANET using modified AODV by calculating the loads on different routes using given parameters like aggregate interface queue length and nodes remaining energy. An Ad-hoc on Demand Distance Vector Protocol (AODV) for routing is one among the effective Reactive Routing Protocols in MANET. The objective of this paper is to basically enhance the AODV network performance, when frequent link failures in network due to mobility of the nodes. The simulations and performance analysis are carried out to evaluate the network performance using Network Simulator tool (NS-2), based on the quantitative metrics packet delivery ratio and average end to end delay. The achieved simulated result helps to understand the precise behaviour of the AODV in the distributed network environment. This paper proposed a new
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Protocol E-AODV (Enhanced AODV) which is a modified AODV with enhanced packet delivery ratios and minimized end to end packet delay.

References

11. Hua Qu, Peng Zhang, Ji-Hong Zhao, “A New Local Repair Scheme Based on Link Breaks for Mobile Ad Hoc Networks”, 2009 Seventh Annual Communications Networks and Services Research Conference.

Index Terms

Computer Science

Networks
Keywords

Ad hoc Network, AODV, Enhanced AODV, Packet delivery Ratio, End to End Delay, Throughput