Abstract

The mobile ad hoc network is self-configurable network technology where not any fixed infrastructure is available. Due to frequent mobility and dynamic topology the network suffers from the frequent path breaks and the connectivity issues. The clustering techniques are utilized to improve the connectivity and scalability of network. Therefore a new weight based clustering algorithm is developed using the remain energy, signal to noise ratio, mobility and connectivity for better performance in a cluster. The implementation and the comparative performance study are performed in network simulator 2 platforms. The performance studies of the technique are given in terms of packet delivery ratio, remaining energy, end to end delay, throughput and overhead in network. The obtained results demonstrate the proposed technique improves the reliability of cluster.

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Index Terms

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