Abstract

MANET is a multi-cluster, multi-hop packet radio network that should adapt itself to the dynamically changing network configurations. This dynamic reconfiguration is governed by clusterheads, a major set of nodes that have enough resources to be capable of routing packets in the network. This paper proposes a load balancing heuristic to extend the network lifetime. It has two phases. Initial clustering is done for the entire network in start up phase that takes node’s degree and energy as input parameters. The maintenance phase keeps the network topology updated through global re-clustering and local updation. Global reclustering is initiated when the network becomes significantly unbalanced i.e. if the variance of degree of the cluster heads in the network is greater than a pre-determined threshold. It is expected to get better result than the time driven algorithms, as implementation is still under progress.

References

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Index Terms

Computer Science
Networks

Keywords
Ad-Hoc networks  Clustering  Load Balancing  Reclustering  Energy Conservation