Abstract

Due to decentralization and infrastructure less characteristics of ad hoc networks, it can be established in any environment without pre-existing infrastructure with ease of deployment. There are many issues for designing of ad hoc network like MAC layer protocol, security, mobility of nodes, routing protocol, quality of service etc... The most challenging is design of routing protocol which may affects the performance of ad hoc network. Ad-hoc networks are very useful in disaster scenario which provides communication among rescue team members to perform relief operation efficiently. In this paper, we have proposed a new technique based on link stability and energy aware, which is applied to Ad-hoc On Demand Distance Vector (AODV) protocol. We have checked performance of normal AODV, Min max based AODV, distance based AODV and our modified AODV routing protocol in terms of routing metrics like packet delivery ratio, normalized routing load, throughput and remaining energy using NS2 simulator. Nodes in ad hoc network are having limited battery power so; if they consume battery power very efficiently then life time of nodes can be increased. From the simulation results, it is observed that our proposed technique on AODV protocol consume less energy and gives better performance than different variant of AODV.

Refer
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