Abstract

Mobile Ad hoc networks (MANET) allow a set of wireless hosts to exchange information without any special infrastructure. Limited battery power is one of the most important issues in mobile ad hoc network as the mobile nodes operate in limited battery power. Also there occurs a problem of broken links due to the lack of energy which cause disorder in network system. Such problem occurs due to the unawareness of energy of mobile neighbor nodes. Here, we choose Proactive Routing Protocol i.e OLSR because it is not Loop free and its communication overhead is high. Due to this here paper proposes Optimization of OLSR in aspect of Hello Message Interval and Topology Control (TC) time to meet Quality of Service (QoS) requirements between source and destination node pairs. The Hello Message Interval and Topology Control is treated like an optimization problem and techniques of Genetic Algorithms (GA) are used to solve it. The solution obtained after solving the optimization problem is in the form of effects on QoS while changing the values of parameter of OLSR using OPNET Modeller 14.5 simulator.
Optimization of OLSR Routing Protocol with Effective Resource Management

References


Index Terms

Computer Science
Networks

Keywords

Mobile ad hoc networks; Routing; Hello message; Topology Control