Abstract

A network which does not require any fixed pre-existing infrastructure and can be defined as a set of mobile nodes is called MANET. In MANET mobile nodes are communicating through wireless medium. In MANET all mobile nodes behaves as router and when required they takes part in discovery and maintenance of the route to the other node. One of the major challenges in designing a routing protocol for the MANET is to determine a packet route; a node needs to know at least about its neighbors. On the other hand in MANET wireless networks conditions changes frequently with time due to the mobile nodes thus routing becomes a challenging task. To serve this purposes various proactive, reactive and hybrid routing protocols are developed by researchers. Among all AODV, DSR, DYMO and ZRP are well known popular routing protocols and have been standardized by the IETF MANET WG. ZRP is a well known hybrid
Performance Analysis of ZRP over AODV, DSR and DYMO for MANET under Various Network Conditions using QualNet Simulator

routing protocol. To understand its suitability we must understand its behavior under various real time conditions. This paper presents performance analysis of ZRP routing protocol over AODV, DSR, and DYMO routing protocols using QualNet version 5.2. This experiment uses different network conditions, close to real time condition, for the performance analysis of ZRP using AODV, DSR and DYMO as a reference protocol. Simulations are carried out to analyze the different network parameters such as throughput, average jitter, average end-to-end delay and packet delivery ratio.

References


Index Terms

Computer Science Mobile Networks

Keywords

MANET AODV DSR DYMO ZRP QualNet version 5. 2