Abstract

A mobile ad-hoc network (MANET) is a collection of mobile wireless nodes, which communication to each other without any centralized control. These networks are characterized by a lack of infrastructure, and by a random and quickly changing network topology: thus the call for a strong dynamic routing protocol that can accommodate in such an environment is generated. In addition to this, routing protocols face many challenges like short battery backup, limited processing capability. This paper is an effort to study the performance of two on-demand routing protocols (AODV and DSR) in terms of number of routes selected, number of hop counts, number of RREQ packets and number of RREP packets. Simulation on QualNet shows that AODV compared with DSR reduces the number of hop count nodes, and AODV has less number of routes as compared to DSR, which helps AODV to be more efficient and less bulky. While comparing route request packets AODV is again better by having more number of RREQ packets as compared to DSR which made it more efficient in finding a new route and each time in replacing a stale link.
Performance Comparison of AODV and DSR On-demand Routing Protocols for Mobile Ad-Hoc Networks


Index Terms

Computer Science Wireless

Keywords

Ad-hoc networks  Performance  AODV  DSR  Routing protocols