Abstract

Mobile ad-hoc network is a collection of wireless mobile hosts forming a temporary network without the aid of any stand-alone infrastructure or centralized administration. Mobile ad-hoc network have the attribute such as wireless connection, continuously changing topology, distributed operation and ease of deployment. In this paper we have investigated the performance of two MANET routing protocol (Proactive and Reactive) by using Freeway and Random Waypoint mobility model for mobility of nodes using TCP traffic. Freeway Mobility model has been generated by IMPORTANT (Impact of Mobility Patterns on Routing in Ad-hoc NeTwork) tool, whereas Random Waypoint by inbuilt setdest tool in NS2. A detailed simulation has been carried out in NS2 with TCP traffic sources and AODV as reactive and DSDV as proactive routing protocols. The metrics used for performance analysis are Packet Delivery Fraction, Average end-to-end Delay, Packet Loss, Routing Overhead, Normalized Routing Load and throughput. It has been observed that (proactive routing protocol) DSDV performance is better than (reactive routing protocol) AODV but at the cost of higher average end-end delay in both mobility models. Both routing protocols give optimized result in Random Waypoint mobility model as compared to Freeway Mobility Model.
References

- UCB/LBNL/VINT N/W Simulator cs. berkeley. edu/ns
Index Terms

Computer Science Wireless

Keywords

Manet Routing Protocol Important Tcp Mobility Model Performance Metrics