Abstract

The main reason for degradation in mobile ad-hoc network performance as a result of node mobility due to the traffic control overhead required for maintaining routes in the case of table-driven protocol and maintaining routes in the case of on-demand protocol. The performance completes goes down when the mobility comes into picture for the network. The effect of mobility on fundamental communication and network performances metrics such as the bit error rate (BER) of multi-hop route joining a source-destination pair, and minimum required node spatial density of an ad-hoc wireless network for full connectivity. This paper discuss the impact of mobility and point out their importance in real scenarios for pedestrian and vehicular speed using two distance vector routing protocol namely: destination sequenced distance vector (DSDV) and dynamic source routing (DSR) protocol. Here source node movement, destination node movement and all node movement have been considered using different mobility period and also try to judge the QoS parameter for such scenario. BER of an average multi-hop route directly affects the ability of an d-hoc network to support applications requiring a specific BER, for a given node transmission power and node spatial density.
References

- C. Perkins, "Ad hoc on demand distance vector (AODV) routing, internet draft, draft-ietf-manet-aodv-00.txt".

Index Terms

Computer Science

Wireless
Keywords
   Ad-hoc network  mobility  distance vector protocol  NS-2