Abstract

Mobile Ad-Hoc Network (MANET) routing protocols performance is perceptive to mobility and scalability of network, therefore, the objectives of the paper is to describe mobility models based on mobility matrices class and impact of these metrics on routing performance metrics in MANET. An effort for analyzing and evaluating the derived mobility metrics with direct mobility metrics are considered across mobility models i. e. Random waypoint, Reference Point Group, Manhattan, Freeway have been carried out into two parts of article. This article focuses impact analysis of mobility models on two prominent reactive routing protocols – Ad-hoc on demand distance vector (AODV) and dynamic source routing (DSR) with fixed scalability of network size with varying node speed, identical traffic load as well as mobility pattern and also extends an intuitive study to analysis the interplay between mobility patterns and protocols building blocks.

References

- S. Ramanathan and M. E. Steenstrup 1996, A survey of routing techniques for mobile
communications networks, Mobile Networks and Applications 98–104.

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

- X. Hong, M. Gerla, G. Pei, and C. -C. Chiang 1999, “A group mobility model for ad hoc wireless networks”, in ACM/IEEE MSWiM.
and Mobile Applications, Glasgow, Scotland, Great Britain.


Index Terms

Computer Science

Wireless

Keywords

Mobility Models  Mobility Metrics  Connectivity Graph Metrics  Routing Protocol-aodv
Dsr And Routing Metrics