Abstract

Vehicular Ad-hoc Networks (VANETs) have been recently attracting an increasing attention from both research and industry communities. The emerging and promising VANET technology is distinguished from mobile ad hoc networks (MANET) and wireless sensor networks (WSN) by large-scale deployed autonomous nodes with abundant exterior assisted information, high mobility with an organized but constrained pattern, frequently changed network topology leading to frequent network fragmentation, and varying drivers behavior factors. In this paper, We introduce a promising realistic vehicular mobility model and evaluate the performance of following routing protocols: AODV, DSR and TORA. A variety of highway scenarios,
characterized by the mobility, load, and size of the network were simulated. Our results indicate the reactive routing protocols performance, which is suitable for VANET scenarios in terms of packet delivery ratio, routing load, and end-to-end delay.

References

- Gongjun Yan, Nathalie Mitton, Xu Li, 2011, “Reliable Routing in Vehicular Ad hoc Networks", The 7th International Workshop on Wireless Ad hoc and Sensor Networking (WWASN 2010), Genoa, Italy.
- The Network Simulator, ns-2 http://www.isi.edu/nsnam/ns.

Index Terms

Computer Science

Communication and Networks

Keywords

MANET  VANETs  AODV  DSR  TORA