Abstract

Mobile Ad hoc Networks (MANET) are wireless networks without an infrastructure, which are usually set up on a temporary basis to serve a particular purpose within a specific period of time. An efficient routing protocol for MANET has become a necessary and important issue to be considered before deploying any mobile network. This paper presents a comparison among the reactive routing protocols: Ad-hoc On-Demand Distance Vector Routing (AODV), Dynamic Source Routing (DSR) and Temporally Ordered Routing Algorithm (TORA). The effects on the routing efficiencies with a special focus on the mobility and node density using end to end delay, throughput, retransmission attempts and data dropped as indices of performance evaluation for FTP traffic were observed by using OPNET 14.5 modeler as simulation tool. Based on the observations from literature and empirical study conducted using OPNET, it is found that among the three protocols, no single protocol can successfully provide optimum efficiency in different MANET scenarios.

References

Performance Comparison of Reactive Routing Protocols of the Mobile Ad hoc Networks,

Index Terms

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Ad hoc Network  Routing Protocols  Throughput  End to end delay  data dropped