Abstract

The primary objective of this research work is to study and investigate the performance measures of Reactive protocols (AODV, TORA) and Proactive protocols (DSDV) routing protocols of MANET using TCP & CBR based traffic models. In this paper we will simulate the environment used for analyzing, evaluating and implementing AODV, DSDV and TORA routing protocols in MANET, to analyze the performance of above said protocols based on Packet Delivery Ratio, Average End-to-End Delay and Throughput. We will investigate the effect of change in number of nodes on MANET routing protocols. Here, we will analyze and compare the performance of MANET routing protocols based on both CBR and TCP based traffic patterns. We have used the NS-2 simulator for performing various simulations and used awk scripts for analyzing the results.

Reference


Mani P., Petr D.W., “Development and performance characterization of enhanced AODV routing for CBR and TCP traffic”, 2004 IEEE.


Masoudifar M., “A review and performance comparison of QoS multiicastrouting protocols
- Mukhija R., Saluja R., “Performance comparison of ad-hoc network routing protocols in
AODV, DSR and DYMO routing protocol in MANET”, CSSR 08-09, 14 - 15 March 2009.
International Conference on Electronic Computer Technology © 2009 IEEE.
- Suresh Kumar, R K Rathy and Diwakar Pandey, "Traffic pattern based performance
comparison of two reactive routing protocols for ad hoc networks using NS@", © 2009 IEEE.

- Vikas Singla, Rakesh Singla and Ajay Kumar, “Performance Evaluation and Simulation of
Mobile Ad-hoc Network Routing Protocols", International Journal of Engineering and Information
Technology ,Volume 1 No. 1 October 2009.
- Qamar S., Manoj K., “Impact of Random Loss on TCP Performance in Mobile Ad-hoc
Networks (IEEE 802.11): A Simulation-Based Analysis”, International Journal of Computer
- Yogesh Chaba, Yudhvir Singh, Manish Joon, "Simulation Based Performance Analysis of
On-Demand Routing Protocols in MANETs," Second International Conference on Computer

Index Terms
Computer Science Networks

Key words
Routing MANET
Ad-hoc
Protocol
Performance
Simulation
AODV
TORA
DSDV