Abstract

DSR routing protocol was used to evaluate the MACA and EMACA performance. Results show that the EMACA simulation performs well as compared to MACA in sense of Throughput, Total Packet Receive, Drop Packet Ratio and Average Jitter under varying conditions of Pause Time. In this paper we will try to change route selection mechanism proactively. We will also define a link stability parameter in which a stability value is assigned to each link. Given this feature, destination node can estimate stability of routes and can select the best and more stable route. Therefore we can reduce the delay and jitter of sending data packets. We have evaluated the operation of DSR through detailed simulation on a variety of movement and communication patterns, and through implementation and significant experimentation in a physical outdoor ad-hoc networking testbed we have constructed, and have demonstrated the excellent performance of the protocol.
Reference

- Imrich Chlamtac, Marco Conti, Jennifer J.N. Liu, “Mobile ad hoc networking: imperatives and challenges”, University of Texas at Dallas, Dallas, TX, USA, Ad Hoc Networks 1 (2003) 13–64.
- Blerta Bishaj, “MAC protocols, contention-based with reservation and scheduling”, Helsinki University of Technology.
- Jun-Zhao Sun Media Team, “Mobile Ad Hoc Networking: An Essential Technology for
Empirical study of CSMA, MACA and EMACA Protocols to Support QoS under varying conditions of Pause Time in Ad-hoc Wireless Network by resources of DSR Routing Protocol


- Neeraj Agrawal, Prof. Sanjeev Sharma, Prabhat Sharda, School of Information Technology, RGPV, Bhopal, “A Comparative Study of MAC to support Quality of Services (QoS) in Ad-Hoc wireless Networks”, Proceeding of International Conference on Mathematics and Computer Science (ICMCS) -2010, PP. 227-231, INDIA.
- David B. Johnson Rice University Computer Science Department, MS 132 6100 Main Street Houston, TX 77005-1892, Y.Hu, University of Illinois at Urbana-Champaign UIUC D. Maltz Microsoft Research, February 2007, The Dynamic Source Routing Protocol (DSR) for Mobile Ad Hoc Networks for IPv4, Request for
Comments (RFC): 4728.

**Index Terms**

Computer Science Wireless

**Key words**

AWNs QoS MAC

CSMA

MACA

EMACA

DSR

Throughput

Total Packet Received Drop Packet Ratio

Average Jitter