Performance Comparison of Reactive, Proactive and Hybrid Routing Protocols in Wireless Ad Hoc Networks

Authors : Kumar Manoj, Ramesh Kumar, Kumari Arti, Kumar Prashant

Abstract : Routing protocols have a central role in any mobile ad hoc network (MANET). There are many routing protocols that exhibit different performance levels in different scenarios. In this paper we compare AODV, DSDV, DSR and ZRP routing protocol in mobile ad hoc networks to determine the best operational conditions for each protocol. We analyses these routing protocols by extensive simulations in OPNET simulator and show that how pause time and the number of nodes affect their performance. In this study, performance is measured in terms of control traffic received, control traffic sent, data traffic received, data traffic sent, throughput, retransmission attempts.

Keywords : MANET, AODV, DSDV, DSR, ZRP