Performance Evaluation of Routing Protocols in Mobile Ad Hoc Networks Using Hypertext Transfer Protocol Traffic

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ABSTRACT Mobile Ad Hoc Networks (MANETs) are receiving significant interest and are becoming very popular in the world of wireless networks and telecommunication. MANETs consist of mobile nodes, which can communicate with each other without any infrastructure or centralized administration. In MANETs, the movement of nodes is unpredictable and complex, thus making the routing of the packets challenging. Most of the work done on the performance evaluation of routing protocols is done using the Constant Bit Rate (CBR) traffic. This paper involves the modeling and simulation of Mobile Ad hoc Networks (MANETs). The performance analysis of the MANET routing protocols such as Ad hoc on Demand Distance Vector (AODV), Dynamic Source Routing (DSR), Temporary Ordered Routing Algorithm (TORA), and Optimized Link State Routing (OLSR) of MANET routing protocols are evaluated under different scenarios using Hypertext Transfer Protocol (http) traffic. The overall results show that the proactive routing protocol (OLSR) performs better in terms of delay and throughput than the reactive routing protocols AODV, DSR and TORA for a medium size MANETs.