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## A PERFORMANCE EVALUATION OF PROACTIVE AND REACTIVE PROTOCOLS USING NS2 SIMULATION

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## Abstract

A mobile ad hoc network (MANET) is an infrastructure less, autonomous, and standalone wireless network. The vision of mobile ad hoc network is to support robust and efficient operation in mobile wireless networks by incorporating routing functionality into mobile nodes. A mobile ad hoc network is the collection of nodes which form the temporary network without the centralized body due to constant changes in network topology. Each node in a MANET serves as a router and performs mobility functionalities in an autonomous manner. Guaranteeing delivery and the capability to handle dynamic connectivity are the most important issues for routing protocols in mobile ad hoc networks. A number of routing protocols have been proposed for this purpose like Ad Hoc On Demand Distance Vector (AODV), Dynamic Source Routing (DSR) and Destination-Sequenced Distance Vector(DSDV). In this paper the Reactive protocols DSR and AODV as well as a Proactive Protocol DSDV were studied and their characteristics with respect to different mobility are analyzed based on packet delivery fraction, routing load, end-to-end delay, number of packets dropped, throughput and jitter using Network Simulator (NS2).

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Keywords: MANET, Proactive and Reactive Routing Protocols