

# **PERFORMANCE EVALUATION OF QoS ROUTING FOR MOBILE AD HOC NETWORK USING NS-2**

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## **ABSTRACT**

A mobile ad hoc network (MANET) is a collection of mobile nodes, where each node is free to move about arbitrarily. These are self configuring that does not require any existing infrastructure. As in this network the nodes are mobile, so the network topology can be very dynamic. Hence there are special routing protocols to cater to the dynamic nature of MANETs. The protocols are Optimized Link State Routing (OLSR) protocol, Ad Hoc On-Demand Distance Vector (AODV) routing protocol, Dynamic Source Routing (DSR) protocol etc. The OLSR Protocol is one of the well known and efficient MANET protocol. For simulation we have used NS-2 simulator tools for the performance of OLSR routing protocol. The performance parameters like average end-to-end delay, packets sent and received, jitter, has been analyzed. . This paper aims towards efficient Quality of Service (QoS) routing by enhancing the multipoint relay (MPR) selection criteria. In the previous papers they have proposed the OLSR protocol introducing metric such as bandwidth that is more appropriate than the hop distance for MPR selection. In this paper the MPR is selected with minimum delay.

**KEYWORDS:** Mobile Ad Hoc Networks, Multipoint Relay, Quality of Service, Quality of Service Routing, Routing Protocol