

Recently, many flooding techniques for Mobile Ad Hoc Networks (MANETs) have been proposed. However, most of these techniques assume that every node in the network has the same transmission range. Therefore, these techniques have poor performance when the nodes in the network have different transmission ranges. In this paper, we propose a new flooding technique to support nodes with different transmission ranges in MANETs. In our technique, when a node receives a packet it avoids an unnecessary retransmission by both checking if all its 1-hop neighboring nodes have received the same packet or if all its transmission area has been covered by the packet sender. In addition, a node avoids unnecessary delay by transmitting immediately if it has the greatest additional coverage area among all the nodes in the 1-hop neighborhood. We compared our technique with similar ones and simulation results using ns-2 show that our technique, using the features mentioned above, substantially reduces the number of unnecessary retransmissions and the delivery latency while maintaining high network coverage