



RESEARCH ARTICLE

A Dynamic Heuristic Mechanism to Improve Throughput in MANET against Path Failures

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Abstract - Recent work in mobile node routing for MANET has focused on solutions only on the frequent link breakages and route discoveries through reduced performance. Due to high mobility of nodes in mobile ad hoc networks (MANETs), route discovery and broadcasting is a fundamental and effective data dissemination mechanism, where a mobile node rebroadcasts blindly the first received route request packets unless it has a route to the destination, and it creates the broadcast storm problem. In this work, we propose a novel routing mechanism based on metrics that estimate link quality to maximize throughput through aggressive path selection. Nodes must collaborate in order to compute the path metric by accommodating accusation-based reaction techniques. Also incorporating the neighbour coverage-based probabilistic rebroadcast protocol for reducing routing overhead in MANETs. In order to effectively exploit the neighbour coverage knowledge rebroadcast delay to determine the order of rebroadcasting, and then we can obtain the more accurate additional coverage ratio by sensing neighbour coverage knowledge. Also introduces a connectivity factor to attain the node density adaptation. By combining the coverage ratio and connectivity factor, a reasonable rebroadcast probability is attained. Our approach combines the advantages of the neighbour coverage knowledge and the probabilistic method, which can significantly decrease the number of retransmissions so as to reduce the routing overhead and also, can improve the routing performance.

Keywords –*broadcasting; gossip; probabilistic; SBA; NCPR*

Full Text: <http://www.ijcsmc.com/docs/papers/December2013/V2I12201366.pdf>