



RESEARCH ARTICLE

Optimal Node Selection Using Broadcasting Algorithm in Mobile Adhoc Network

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Abstract— In optimal node selection using broadcasting algorithm in mobile Adhoc network it finds the nearest optimal node for forwarding messages and the consequent optimal node for receiving and transferring messages and continues up to its Destination Node. Using 1-hop neighbour information, the Sender-based broadcasting algorithm searches local optimal minimum number of forwarding nodes in the lowest computational time complexity $O(n \log n)$, where n is the number of neighbour's. This optimality only holds for a subclass of sender-based algorithms. Sender-based broadcasting algorithm reduces the time complexity of computing forwarding nodes to $O(n)$. A simple and highly efficient Receiver-based broadcasting algorithm is used to broadcast the same message when nodes are uniformly distributed, the probability of two neighbour nodes are exponentially decreases when the distance between them decreases or when the node density increases. Receiver-based broadcasting algorithm can be fine in selecting a lowest minimum number of required broadcasts.

Key Terms: - MANET; Mobile computing; Broadcasting

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