An Efficient Destination Sequenced Distance Vector for Mobility based Asymmetric Networks

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Abstract

The mobile ad hoc network technology is a wireless interconnection of mobile devices and has dynamic topology. It does not have any fixed network infrastructure and the disparity in the transmission range of different nodes can result into the unidirectional asymmetric links in the network. It has adverse impacts on the overall performance of most of the routing protocols which consider all the wireless links in the network as bidirectional. Hence, a new model is proposed in this paper. It uses the routing table to store the information about the out-neighbours and in-neighbours for a node which helps to determine the shortest path to the destination node as well as the reverse path from the unidirectional out-neighbour to the node itself. The paper investigates the existing methods and concludes that the new U-DSDV works efficiently in unidirectional links.

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Index Terms

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Keywords

DSDV, MANET, unidirectional links, asymmetric network