An Adaption of Reactive Measure for Enhancement and Performance Characterization of Routing Protocol under different Traffic Source

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Abstract

Mobile Ad-hoc Network (MANET) is autonomous self organized infrastructure less network of mobile nodes connected by wireless link. For end-to-end communication traffic and mobility scenarios play an important role in MANET, as it support continuous changing network topology, often causing failures in data transfer. Additionally, the failures happen when the signal congestion is high in the MANET; the efficiency of data transfer therefore decreases. Thus, routing in MANET with high speed movement and high signal congestion is challenging. In this article, we present AODV - ACARP algorithm which use cross layer technique that calculate availability of channel at the link-layer. Thus, our algorithm introduces an enhancement and give better result than existing AODV. Thus, his article also compare with other existing reactive DSR and pro-active DSDV routing protocol. The major objective of this protocol is to provide assurances of reliability of proper channel utilization and reduce the number of control bits per data bit transmitted. In this protocol, each node maintains a counter that represents the current status of neighbour at each node which are in active state. The counter value is adaptively adjusted based on the packet delivery ratio. This results in less energy consumption and reliability in the network-wide communication. By simulation results, under different traffic consideration we show that the proposed protocol shows better result in term of normalize routing load, Average End-to-End delay, and packet delivery fraction. For our
simulation we used a discrete event simulator known as Network Simulator version 2. 34.

References

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Index Terms

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Keywords
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- Manet
- Mobility
- Aodv-acarp
- Aodv
- Dsr
- Dsdv
- Tcp
- Cbr
- Ns2