Abstract

This paper presents an analytical model based upon discrete time Markov chain analysis of receiver-initiated protocols for multi hop Ad hoc networks. Three-way receiver initiated
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(RTR-DATA-ACK) scheme for collision avoidance in Ad hoc networks has many protocols with it. In the proposed model, the nodes are randomly distributed according to a two-dimension Poisson distribution with density $\lambda$. For the modeling, the effect of hidden terminals has been considered. As per the condition of saturation every node always has packet to transmit. The results show that the receiver-initiated collision avoidance scheme (proposed work) achieves higher throughput than the sender- initiated collision avoidance scheme for both the cases including short data packet as well as long data packet.

Reference

Throughput Analysis of Receiver Initiated Collision Avoidance in Multi hop Wireless Networks

in Wireless Networks. Wireless Networks, 8, 249-263.


Index Terms

Computer Science Wireless

Key words

Adhoc networks Markov Chain

Receiver Initiated Protocols