Abstract

This paper presents an analysis of DSR protocol and packet scheduling algorithm to find those that most improve performance in congested network and proposes our algorithm to improve the performance of DSR protocol by using fuzzy logic in mobile ad hoc networks. Packet schedulers in wireless ad hoc networks serve data packets in FIFO order. Because, a scheduling algorithm to schedule the packet based on their priorities will improve the performance of the network. It is found that the scheduler provides overall improvement in the performance of the system when evaluated under different load and mobility conditions. The performance of this scheduler has been studied using NS2. 34 simulator and measured such as packet delivery ratio, end-to-end delay and throughput and an attempt to apply fuzzy logic in the design and implementation of a rule based scheduling algorithm to solve the shortcoming of well-known drop tail algorithms. Our main contribution is proposing a fuzzy approach to multi-packets scheduling in which the scheduling parameters are treated as fuzzy variables. It is concluded that the proposed fuzzy approach is very promising and it has the potential to be considered for future research.
References

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Index Terms

Computer Science Wireless

Keywords
Ns2. 34 Fuzzy Priority Scheduler Dsr Manets