

Increasing Throughput in Adhoc Networks Using Queuing Model with Jockeying and Considering Initial Probability of Allocations

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ABSTRACT

Wireless ad hoc networks have been considered by researchers for many years. These networks have been used in industry and recently have been employed in car industry namely, Vehicular Ad hoc Networks (VANETs). In this paper, we model delay in VANETs with multiple wireless access technologies in each wireless device embedded in each car. In the proposed model, we employed Jockeying in queuing theory that a customer switches between different queues in order to reduce its waiting time. Thus, jockeying models the switching between different technologies in a wireless device to improve the total latency of an ongoing communication. The results of analytical model have been verified by conducting simulation experiments.

Keywords: Wireless Adhoc Network, VANET, Queuing Model with Jockeying, Multi-Radio.