

عنوان مقاله:

A Mechanism to Mitigate Collision Rate in Wireless Local Networks

محل انتشار:

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خلاصه مقاله:

Presently, IEEE 802.11 DCF is MAC protocol applied in wireless local networks. DCF would be inefficient, since there are two types of overload: Collision time and channel's idle time. Presentpaper, evaluated the performance and proposed an efficient MAC protocol for these networks called D-CW. D-CW will decrease both the channel's idle time and the collision time. D-CW, by dividing the value of contention window (CW) by two, reducesthe time required for a successful node forwarding, and by selecting variable contention window for packet forwarding from each node with a random uniform function, what if a successful forwarding or an unsuccessful one, decreases the collision time. Stations, after selecting a value from the window contention own, follow the Backoff mechanism, and after counting the number of their own idle slots, do the forwarding. Simulation results indicate D-CW can improve the throughput of the system, delay reduction and collision rate on 802.11 DCF significantly

کلمات کلیدی:

IEEE 802.11 DCF, Collision rate, Throughput, CW

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