

一种新型的无竞争的基于TDMA的MAC协议

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摘要:

本文提出了一种无竞争的基于TDMA的MAC协议CA-TDMA。CA-TDMA协议通过对超帧中竞争时隙的直接分配和数据时隙竞争, 并且通过添加新的申请消息(RTS、CTS、CTR)和提出新的时隙竞争机制、时隙续约机制和竞争时隙交换机制, 来提高TDMA相比动态TDMA协议在分组投递率和网络延迟等性能参数方面均有明显的提高。

关键词: 移动自组织网络; MAC协议; 无竞争; TDMA

A new Contention-Avoid TDMA-Based MAC protocol

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Abstract:

A new Contention-Avoid TDMA-Based MAC protocol was proposed. The CA-TDMA achieves the goal that there is no slot contention-slot's directly allocation and data-slot's mutually application ideas, and it adds some new apply messages and propo slot renewal mechanism and contention slot exchange mechanism to improve the whole network's performance. The result shows than Dynamic-TDMA protocol in the packet delivery ratio and the network latency.

Keywords: MANET; MAC protocol; Contention-Avoid; TDMA

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