网络、通信、安全

基于接收方信道质量的Ad Hoc网络多信道MAC协议

陆 阳[1,2]，盛 锋[1]，官骏鸣[1]，方 梅[1]

1.合肥工业大学 计算机与信息学院，合肥 230009
2.安全关键工业测控技术教育部工程研究中心，合肥 230009

摘要　　在分析当前Ad Hoc网络多信道MAC协议的基础上，提出了一个衡量信道质量的度量参数CQ（Channel Quality）作为信道选择的依据。并提出了一个基于接收方信道质量的多信道MAC协议MMCQ（Multi-channel MAC protocol with Channel Quality of receiver），以解决多信道MAC协议常见的控制信道瓶颈和信道分配公平性问题。仿真表明：该协议在降低控制信道开销的前提下，能显著增加网络的平均吞吐量，并降低端到端平均时延。

关键词　　d Hoc网络　多信道　介质访问控制协议　信道质量
分类号

Multi-channel MAC protocol based on channel quality of receiver for Ad Hoc networks

LU Yang [1,2]，SHENG Feng[1]，GUAN Jun-ming[1]，FANG Mei[1]

1.College of Computer and Information，Hefei University of Technology，Hefei 230009，China
2.Engineering Research Center of Safety Critical Industry Measure and Control Technology of Ministry of Education，Hefei 230009，China

Abstract

　A new metric "CQ" for measuring channel quality was presented after analyzing multi-channel MAC protocol currently.Furthermore，in order to resolve "bottleneck" issues on control channel and fairness in channel assignment which are common phenomenons in multi-channel MAC protocols，an multi-channel MAC protocol with channel quality of receiver was developed.In addition，the simulation shows that the new approach can improve the network throughput and reduce the end to end average delay with less overhead.

Key words　Ad Hoc networks　muti-channel　Medium Access Control（MAC）protocol　channel quality

通讯作者　陆 阳 shengfeng73@126.com

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