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论文

802.11s无线Mesh网络中协作多样性感知的路由度量和协作路由协议

赫卫卿, 杨寿保, 滕达, 胡云

中国科学技术大学计算机科学与技术学院,合肥 230027

摘要:

提出了802.11s无线Mesh网络中协作多样性感知的路由度量,并提出了适应无线Mesh网络特点的协作式路由协议(CDARP)与协作媒体访问控制协议(CMAC).通过构建协作虚拟节点、计算协作链路度量,CDARP-CMAC能够选择最合理的路径进行协作数据传输.实验结果表明,与最优路径的协作机制相比,CDARP-CMAC协议提高了网络有效吞吐量5%~13%;同时降低了数据包丢包率5%~10%.

关键词: 无线Mesh网络 协作多样性 路由协议

Cooperation diversity-aware routing metric and cooperative routing protocol for 802.11s-based wireless Mesh networks

HE Wei-Qing, YANG Shou-Bao, TENG Da, HU Yun

School of Computer Science and Technology, University of Science and Technology of China, Hefei 230027, China

Abstract:

A cooperation diversity-aware routing metric for 802.11s-based wireless Mesh networks(WMNs) is proposed. Furthermore, a cooperation diversity-aware routing protocol (CDARP) and a cooperative MAC protocol (CMAC) are proposed, and both the protocals are adapted to the characteristic of WMNs. By building up virtual nodes and calculating the routing metric for virtual links, CDARP-CMAC can select the most reasonable path to cooperatively transmit packets. The simulation results show that, compared to the traditional cooperation scheme, CDARP-CMAC improves the good put by 5%~13% and reduces the drop rate by 5%~10%.

Keywords: wireless Mesh networks cooperative diversity routing protocol

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通讯作者:

作者简介:

作者Email: deane@mail.ustc.edu.cn

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