

论文

基于收益率的IEEE 802.16自适应概率接纳控制算法

王兴建,胡爱群,黄玉划

东南大学信息安全研究中心 南京 210096

收稿日期 2005-7-15 修回日期 2006-3-14 网络版发布日期 2008-1-18 接受日期

摘要

接纳控制(AC)在宽带无线接入(BWA)服务质量(QoS)中起着非常重要的作用。针对无线城域网IEEE 802.16复杂的QoS定义,该文提出了统一的基于收益率的自适应概率接纳控制算法UAC和简化计算的改进算法EUAC,并给出性能分析。仿真结果表明,自适应算法可以根据当前的资源和负载自适应地改变接纳策略,对不同收益率的业务流表现出明显且合理的区分。自适应算法还具有明显的吞吐量和收益优势,在保持高资源利用率的同时,合理地控制低收益率流,避免已接纳的高收益率流降级。

关键词 [无线网络](#) [自适应接纳控制](#) [服务质量](#) [收益率](#)

分类号 [TN915](#) [TP393.17](#)

Utility-Ratio Based Adaptive Admission Control Algorithm with Probability in IEEE 802.16 Network

Wang Xing-jian, Hu Ai-qun, Huang Yu-hua

Research Center of Information Security, Southeast University, Nanjing 210096, China

Abstract

Admission Control (AC) plays a significant role in providing the desired Quality of Service (QoS) in Broadband Wireless Access (BWA). In this paper, a unitive Utility-ratio based adaptive Admission Control algorithm (UAC) with probability and the Enhanced algorithm EUAC which simplify the computation complexity are presented for miscellaneous QoS definition in IEEE802.16 network, followed by their performance analysis. The simulation results demonstrate the adaptive algorithms can adaptively shift admission strategy base on current resources and system load, obviously and reasonably classify service flows by their utility-ratio. The simulation also illustrate adaptive algorithms have notable advantages in both throughput and utility.

Furthermore, the algorithms rationally restrict the flows with lower utility-ratio to avoid degrading admitted flows with higher utility-ratio while holding high resource utilization.

Key words [Wireless network](#) [Adaptive admission control](#) [Quality of Service \(QoS\)](#) [Utility-ratio](#)

DOI:

通讯作者

作者个人主页 王兴建;胡爱群;黄玉划

扩展功能

本文信息

▶ [Supporting info](#)

▶ [PDF\(288KB\)](#)

▶ [\[HTML全文\]\(OKB\)](#)

▶ [参考文献\[PDF\]](#)

▶ [参考文献](#)

服务与反馈

▶ [把本文推荐给朋友](#)

▶ [加入我的书架](#)

▶ [加入引用管理器](#)

▶ [复制索引](#)

▶ [Email Alert](#)

▶ [文章反馈](#)

▶ [浏览反馈信息](#)

相关信息

▶ [本刊中 包含“无线网络”的 相关文章](#)

▶ 本文作者相关文章

· [王兴建](#)

· [胡爱群](#)

· [黄玉划](#)