

## 一种基于信誉的移动自组网区分服务激励机制

蒋小杰\* 芮兰兰 郭少勇 邱雪松\*

北京邮电大学网络与交换技术国家重点实验室 北京 100876

## A Reputation-based Service Differentiated Incentive Mechanism for MANETs

Jiang Xiao-jie Rui Lan-lan Guo Shao-yong Qiu Xue-song\*

State Key Laboratory of Networking and Switching Technology, Beijing University of Posts and Telecommunications, Beijing 100876, China

摘要

参考文献

相关文章

Download: [\[PDF 248KB\]](#) [HTML 1KB](#) Export: [BibTeX](#) or [EndNote \(RIS\)](#) [Supporting Info](#)

**摘要** 为了有效解决移动自组网节点在自觉提供服务方面的自私行为问题, 该文提出了一种基于信誉的区分服务激励机制。该机制通过建立一种分簇全局信誉模型, 并结合节点能力将服务与信誉进行等级关联, 提供差异化服务; 信誉级别越高的节点可以使用级别越高的服务, 使用服务或者故意不提供服务会减少节点的信誉, 节点需要积极提供可靠服务提高信誉才能保障服务的使用。仿真结果表明所提机制能有效抵制节点的自私行为, 激励节点积极提供可靠服务。

**关键词:** 移动自组网 信誉 区分服务 激励机制 提供服务

**Abstract:** A Reputation-based Service Differentiated Incentive (RSDI) mechanism is proposed in this paper to solve the selfish behavior of nodes during consciously supporting services efficiently for Mobile Ad-hoc NETWORKS (MANETs). With a clustering global reputation model and associating services with reputation using grades, RSDI provides differentiated services based on reputation; The nodes which have higher reputation level can consume higher level services, consuming services or refusing to provide services intentionally will reduce nodes' reputation, nodes need positively provide trustworthy services to increase their reputation in order to ensure consuming services. Simulations show that RSDI can resist the selfish behavior of nodes, and motivate nodes to positively provide trustworthy services effectively.

**Keywords:** Mobile Ad-hoc NETWORKS (MANETs) Reputation Service differentiated Incentive mechanism Services providing

Received 2011-11-10;

本文基金:

国家科技重大专项(2011ZX03005-004-02), 国家863计划项目(2011AA01A102), 国家科技支撑计划项目(2012BAH06B02)和国家自然科学基金(61121061)资助课题

通讯作者: 蒋小杰 Email: muxi@bupt.edu.cn

引用本文:

蒋小杰, 芮兰兰, 郭少勇, 邱雪松. 一种基于信誉的移动自组网区分服务激励机制[J] 电子与信息学报, 2012, V34(7): 1697-1702

Jiang Xiao-Jie, Rui Lan-Lan, Guo Shao-Yong, Qiu Xue-Song. A Reputation-based Service Differentiated Incentive Mechanism for MANETs[J], 2012, V34(7): 1697-1702

链接本文:

<http://jeit.ie.ac.cn/CN/10.3724/SP.J.1146.2011.01168> 或 <http://jeit.ie.ac.cn/CN/Y2012/V34/I7/1697>

### Service

- ▶ [把本文推荐给朋友](#)
- ▶ [加入我的书架](#)
- ▶ [加入引用管理器](#)
- ▶ [Email Alert](#)
- ▶ [RSS](#)

### 作者相关文章

- ▶ [蒋小杰](#)
- ▶ [芮兰兰](#)
- ▶ [郭少勇](#)
- ▶ [邱雪松](#)