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移动Internet中的IP组播研究综述

吴 茜, 吴建平, 徐 恪, 刘 莹

吴 茜, 吴建平, 徐 恪, 刘 莹 (清华大学 计算机科学与技术系,北京 100084)
第一作者: 吴茜(1978－),女,湖北荆州人,博士生,主要研究领域为计算机网络体系结构,移动环境中的路由和组播.
联系人: 吴茜 Telephone: 86-10-62785822, Fax: 86-10-62788109, E-mail: wuqian00@mials.tsinghua.edu.cn
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Abstract
With the rapid progress of multicast applications and more users participating in it, IP multicast has been an important subject in both research and development. In the meantime, due to the rapid promulgation of mobile devices and progress in wireless technology these years, it is imperative to determine the best way to provide services to mobile equipment. Because IP multicast naturally has the merit of high scalability and efficiency, which is more significant for mobile environment whose resource is much limited, more and more people pay attention to these two techniques, and many efforts are being made to bring them together. In this paper, a comprehensive survey on mobile multicast arithmetics and schemes is given, the advantages and application range of these arithmetics or schemes are discussed respectively, also the shortcomings and problems existed are anatomized in depth, and then a comprehensive comparison is given. In view of poor reliability in mobile environment, a detailed investigation of new problems when implementing reliable multicast to mobile hosts is given, and some related works are introduced. It was hoped that the illustration and discussion presented here would be helpful for developers in selecting an appropriate mobile multicast arithmetic or protocol for their specific needs. In the end, the future trend of combining multicast and mobile is discussed.

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摘要
随着组播应用的不断增加以及参与者的增多,组播领域的研究一直受到人们的广泛关注.而另一方面,近年来,移动设备迅速得到了普及,并且无线网络技术也得到了飞速的发展,因此,如何为移动主机提供更好的支持引起了人们的普遍关注.由于组播应用所具有的可扩展性强、高效等特点在移动这种资源受限的环境中显得尤为突出和重要,因此,移动环境中的组播应用引起了人们越来越多的重视,在该领域展开了大量的研究.详细地介绍了现有的主要移动组播算法和协议,讨论了每种算法或协议的适应范围以及优点,比较深入地剖析了其中存在的缺陷和问题,并且对这些移动组播算法和协议进行了综合对比.同时,特别针对移动环境可靠性较差的特点,对移动环境中进行可靠组播所面临的新问题以及相关研究现状进行了讨论.希望通过这些说明和对比,能够帮助研究者为其特定的需求选择适当的移动组播算法或协议.最后,讨论了移动环境中IP组播未来的研究方向.

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