

博士论坛

基于P2VoD的视频点播系统

齐卫宁^{1,2}, 王劲林²

1.中国科学院 研究生院, 北京 100049

2.中国科学院 声学研究所 网络与新媒体中心, 北京 100080

收稿日期 2007-11-21 修回日期 2008-1-11 网络版发布日期 2008-3-22 接受日期

摘要 基于P2VoD协议, 设计了一种能使得节点快速有效地加入网络的VoD系统。考虑P2P网络的动态性, 在节点的加入过程中为失效恢复预留带宽资源。将节点的缓存分为代内缓存和代外缓存, 充分利用节点的缓存提高播放的流畅性。带宽不足节点及时向服务器报告带宽信息, 减少节点加入时被拒绝的概率。仿真结果表明, 与原有系统相比, 新系统在充分利用服务器负载能力的情况下, 明显地降低了节点加入系统的延迟, 增加了节点加入系统的概率, 并能够保证节目播放的连续性。

关键词 [视频点播系统](#) [对等网络](#) [P2VoD协议](#) [失效恢复](#)

分类号

New peer-to-peer VoD system based on P2VoD

QI Wei-ning^{1,2}, WANG Jin-lin²

1.Graduate School of the Chinese Academy of Sciences, Beijing 100049, China

2.Institute of Acoustics, Chinese Academy of Sciences, Beijing 100080, China

Abstract

A new VoD system based on P2VoD is designed, in which peers can join the system quickly and effectively. According to the dynamic characteristics of peer-to-peer networks, bandwidth resource is reserved for failure recovery when peers join into the network. And peers' buffer is divided into two parts to make use of the buffer for playing fluency improvement. The changing of the bandwidth information is reported to the server in time to reduce the reject-probability. Simulation results show that joining delay is obviously reduced and joining probability is remarkably increased in the new system by making best of the server's capability. And at the same time, playing stability is guaranteed.

Key words [VoD systems](#) [peer to peer](#) [P2VoD protocol](#) [failure recovery](#)

DOI:

通讯作者 齐卫宁

扩展功能

本文信息

▶ [Supporting info](#)

▶ [PDF\(592KB\)](#)

▶ [\[HTML全文\]\(0KB\)](#)

▶ [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“视频点播系统”的相关文章](#)

▶ 本文作者相关文章

· [齐卫宁](#)

·

· [王劲林](#)