

网络、通信、安全

TA-chord2: 基于分层DHT的拓扑感知流媒体体系

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收稿日期 2008-1-14 修回日期 2008-3-31 网络版发布日期 2009-2-9 接受日期

摘要 针对目前DHT系统较高的维护开销、应用层网络与物理网络的拓扑失配等不足, 提出一种基于分层DHT的拓扑感知流媒体体系TA-chord2。分层的设计使节点根据其服务能力对系统做出相应的贡献; PNS原则和Vivaldi坐标减少了节点的查询延迟和媒体数据的传播延迟; 多个邻近的供应者同时给一个请求者提供流服务, 提高了流媒体系统的传输效率和服务质量。实验仿真结果表明该体系有更低的维护开销、更好的路由性能和更高的服务效率。

关键词 [TA-chord2](#) [chord](#) [邻近邻居选择 \(PNS\)](#) [Vivaldi](#) [拓扑感知](#)

分类号

TA-chord2: A topo-aware streaming media architecture based on two-layer DHT

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Abstract

In DHT system, the maintenance overhead is relatively high and topo is not aware. To solve these problems, this paper introduces TA-chord2: A topo-aware streaming media architecture based on two-layer DHT, which makes nodes to contribute their resources differently to the system based on their service capacity; PNS and Vivaldi are introduced to decrease routing latency and streaming media transmitting latency; replying queries with multiple peers which are close to the requesting peer, could achieve good streaming quality. Experiment results show that TA-chord2 has lower maintenance overhead, better routing performance and streaming quality than chord.

Key words [TA-chord2](#) [chord](#) [Proximity Neighbor Selection \(PNS\)](#) [Vivaldi](#) [topo-aware](#)

DOI: 10.3778/j.issn.1002-8331.2009.05.035

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