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Author I-Ting Lee
Author's Email Address No Public.
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Abstract
Owing to the explosive growth of the Internet, the information now can be rapidly disseminated all over the world. The content simply consisting of static texts and pictures has no longer met users' demands. Along with the speedy advance of
computer-related technologies, how to efficiently provide multimedia content for the large population with heterogeneous download capacities on the Internet, especially videos, becomes a noticeable issue. Server has to offer more elasticity streaming transmission to clients on the heterogeneity Internet, otherwise the limited network bandwidth of general clients will not receive steaming data. In this paper, we discuss the adaptation of MDC (Multiple description Coding) for the loopback buffering mechanism that to address the issue of peer heterogeneity on a CDN-P2P (Content Distribution Network-Peer to Peer) video-on-demand system that is collaborative cache and relay among clients and CDN servers. The server can encode
a video stream into a set of descriptions (sub-streams). Clients are allowed to join various forwarding loops so as to collect different descriptions and achieve the expected quality level according to their own download capacities. The proposed OLF (Open-Loop-First) description selection policy for a new peer takes the robustness and the availability of loopback-MDC mechanism and retaining the availability of loop into account to raise the scalability of proxy servers. The project proposed loopback-MDC mechanism that solve the heterogeneity of client, the variability of client and the limited availability of peer.We preliminary estimates the plan is more feasibility. The loopback-MDC mechanism can effectively reduce the amount of uploading bandwidth of a proxy server on a CDN-P2P video-on-demand system, and reduce the possibility of failure peer, therefore the quality view of clients is stably.
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