Abstract

During the last two decades, it has been observed the exponential growth in the number of users coupled with variety of wide area networks (WAN) at the global levels and provisions for bulky video data download through them. To achieve the goal of supporting such hundreds of interactive data streams simultaneously, optimization and various tradeoffs need be applied for the storage of data on huge secondary memory & high bandwidth for its transportation for retrieval and real time playback. Video on demand (VOD) streaming one such service where videos are delivered to asynchronous users with minimum delay and free interconnectivity. The VoD is costly due to the limited upload capacity of the video server and traditional centralized
client/server & peer-to-peer mesh architectures. The VOD streaming through proposed hybrid cluster network architecture are an approach to simplify the limitation of existing system. This innovative approach combines the advantages of both client/server & mesh architectures. In this paper, firstly we provide a better understanding of the streaming media storage size & bandwidth requirement, storage architecture, brief concept of compression techniques and then present a hybrid cluster network for the performance measurement-based study for bandwidth utilization of VOD streaming. The results demonstrate the advantages of hybrid cluster network as an efficient video streaming with respect to centralized and mesh networks.

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Index Terms

Computer Science

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Keywords

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