

A Novel Approach for Enhancing Performance of VoD Systems

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Abstract—Multimedia applications such as Video-on-Demand (VoD), Live streaming, Internet stock quotes, Internet radio, audio/music delivery, video surveillance are of growing interest among general public. Existing systems that support these kinds of applications such as centralized server, independent server nodes, and proxy incur significant delay and serve only less number of videos. In this research, a multi-server system that utilizes a split and merge scheme is proposed to reduce the waiting time. This system helps us to achieve load balancing, while increasing the number of videos being served. Our simulation model consists of a single main multimedia server and a set of streaming servers. The performance of the proposed system for various K values is evaluated in the VoD scenario. The results show that the proposed multi-server scheme performs better in terms of initial latency and number of videos being served, compared to the other existing schemes. **Index Terms**—Component, formatting, style, styling, insert.

Keywords: Multi-Server System, Vod, Multicast Bandwidth, Scalability, Wireless Networks

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