Method for Efficient On-Demand Data Streaming

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WARF: P00018US
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The Wisconsin Alumni Research Foundation (WARF) is seeking commercial partners interested in developing a method for reducing the server and network bandwidth associated with streaming media and increasing transmission efficiency.

OVERVIEW

Many different types of media can be obtained from websites (i.e., online), including music, television shows and distance education programs. When delivered over the Internet, these types of media are referred to as streaming media.

For video-on-demand applications, one must consider the bandwidth limitations at the server, within the network and at the client. Currently available multicast delivery techniques have addressed the server and network bandwidth bottlenecks that occur with popular files. However, these techniques fail to consider the client network bandwidth, which is often insufficient to permit quality streaming video.

THE INVENTION

UW-Madison researchers have developed a method for holding and reserving a portion of the client reception bandwidth not contributing significantly to display quality to substantially reduce the server and network bandwidth associated with streaming media.

APPLICATIONS

• Transmitting streaming media

KEY BENEFITS

• Reduces server and network bandwidth by an order of magnitude or more over techniques that do not attempt to achieve client stream sharing
• Makes video-on-demand more feasible
• Significantly increases the transmission efficiency of streaming data to clients who
receive bandwidth of less than twice the playback rate
• Enables clients to acquire data at higher than the playback rate

ADDITIONAL INFORMATION

Related Technologies
See WARF reference number P00039US for a method of caching media files to reduce delivery cost.

Publications

Tech Fields
Information Technology - Network technologies

CONTACT INFORMATION

For current licensing status, please contact Emily Bauer at emily@warf.org or 608-960-9842.