

(54) **FLOW CONTROL METHOD FOR QUALITY STREAMING OF AUDIO/VIDEO/MEDIA OVER PACKET NETWORKS**

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**Related U.S. Application Data**

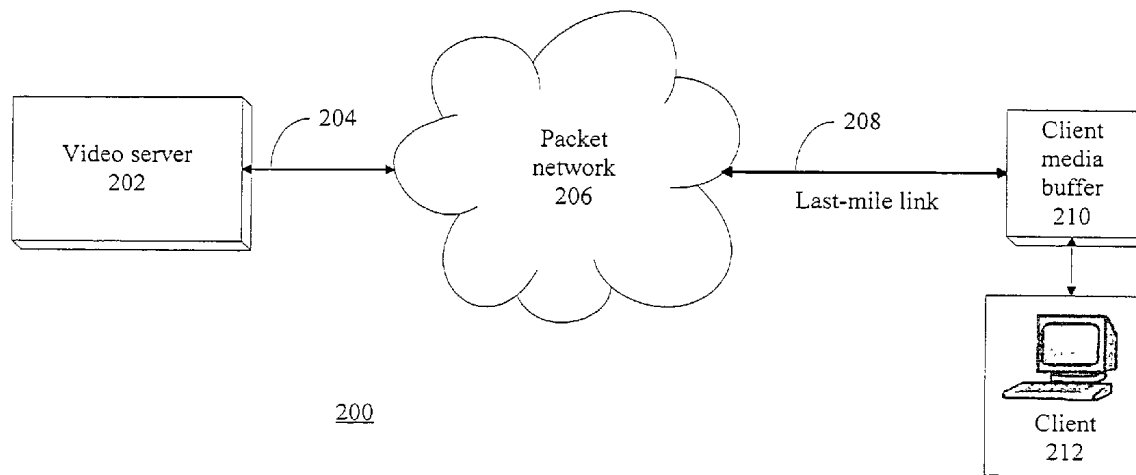
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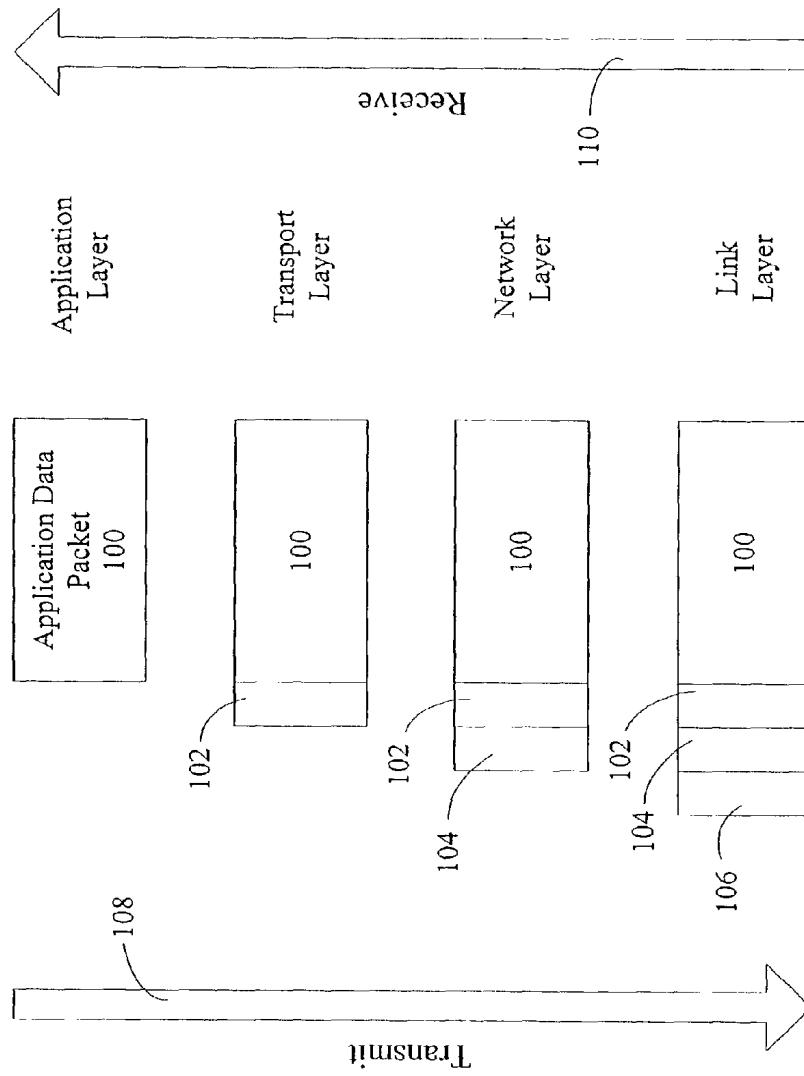
(51) **Int. Cl.<sup>7</sup>** ..... **G01R 31/08**  
(52) **U.S. Cl.** ..... **370/229; 370/477**

(57) **ABSTRACT**

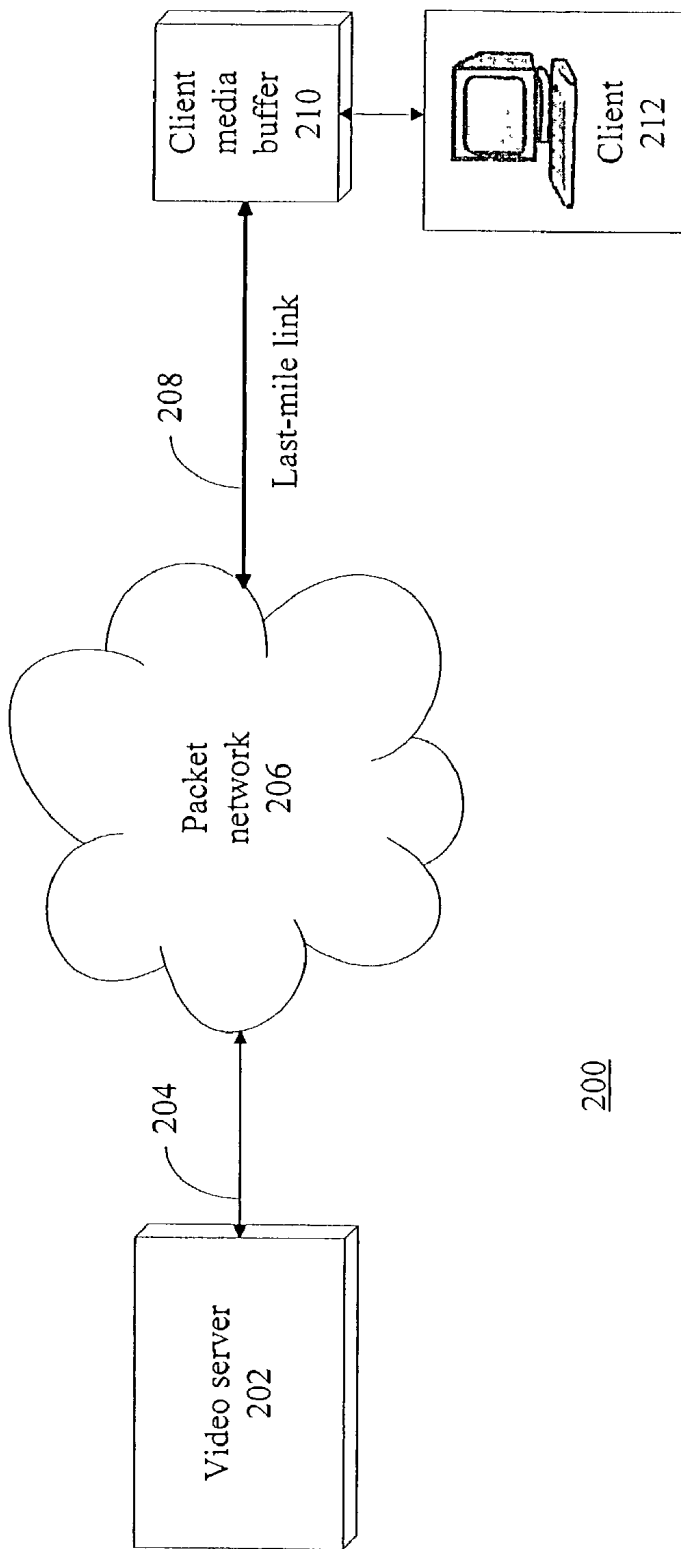
A method and apparatus for client-side detection of network congestion in a best-effort packet network comprising streaming media traffic is disclosed. Said method and apparatus provide for quality streaming media services in a congested network with constrained bandwidth over the last-mile link. A client media buffer detects at least one level of congestion and signals a server to enact at least one error mechanism. Preferred error mechanisms include packet retransmissions, stream prioritization, stream acceleration, changes in media compression rate, and changes in media resolution. Said method and apparatus allow distributed management of network congestion for networks comprising multiple clients and carrying significant streaming media traffic.



# TCP/IP Protocol Stack Data Transmission



*Fig. 1*  
*Background Art*



*Fig. 2*

# Client Media Buffer Mode I

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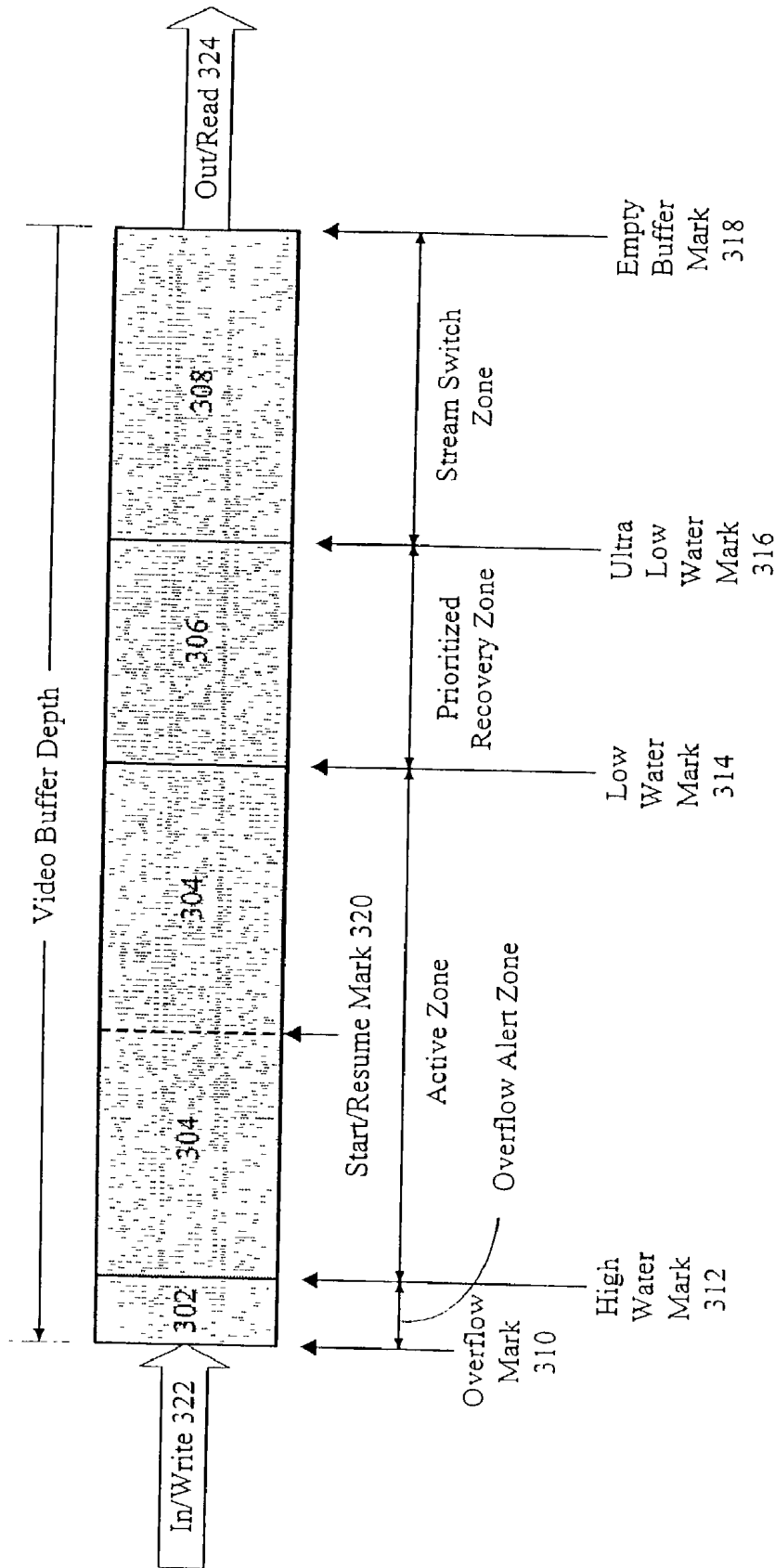


Fig. 3

# Client Media Buffer Mode II

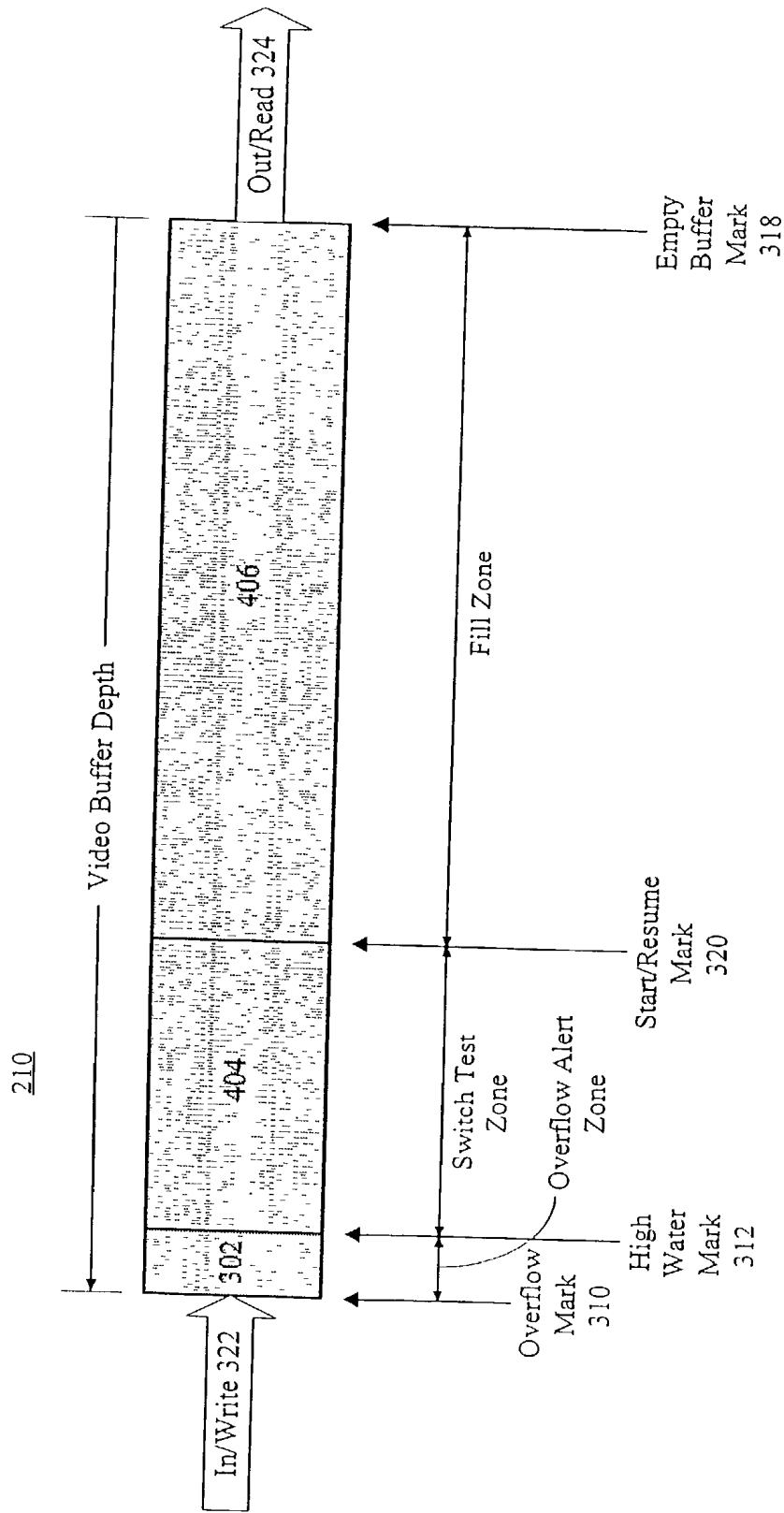


Fig. 4

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