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(54) **DYNAMIC PROBABILITY-BASED  
ADMISSION CONTROL SCHEME FOR  
DISTRIBUTED VIDEO ON DEMAND SYSTEM**

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(58) **Field of Classification Search**

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See application file for complete search history.

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#### ABSTRACT

The dynamic probability admission control policy for distributed video provides a method that decides in a Video on Demand (VOD) system which content requests can be admitted and which requests should be rejected to maintain Quality of Service (QoS). Requests for popular and expensive movies should not be rejected on the behalf of unpopular movies to generate more revenue. The dynamic probability admission control policy combines a shared resource admission control and a class-based admission control. Moreover, dynamic probability is used to access shared resources, such as ports and bandwidth. A nonlinear dynamic probability function is used for allocation of ports/bandwidth. The dynamic probability admission control policy improves performance of all the request classes, as well as overall system performance.

**7 Claims, 12 Drawing Sheets**

