

Cooperative web proxy caching for media objects based on peer-to-peer systems

ABSTRACT

Web proxy caches are used to improve the performance of the World Wide Web (WWW). Many advantages can be gathered from caching such as improving the hit rates, reducing network traffic, and alleviating loads on origin servers. On the other hand, retrieving the same object many times consumes the network bandwidth. Thus, in order to overcome this limitation, in this work, a cooperative web caching approach for media objects based on peer-to-peer systems is proposed. Two performance metrics are used that are Hit Ratio (HR) and Byte Hit Ratio (BHR). A simulation is carried out to study the effects of cooperative caching on the performance of web proxy caching policies. The results show that cooperative caching improves the performance of web proxy caching policies in delivering media objects.

Keyword: Web proxy; Simulation; Caching policies