

A NOVEL APPROACH FOR WEB CACHEING THROUGH MODIFIED CACHE REPLACEMENT ALGORITHM

V. SATHIYAMOORTHI¹ AND V. MURALI BHASKARAN²

¹Department of CSE,
Sona College of Technology, Salemi-5, Tamil Nadu, India

²Principal, Paavai College of Engineering,
Paachal, 637018, Tamil Nadu, India,

Abstract

Web caching is a mechanism used for reducing network traffic, server load and delay in accessing the web page. This is achieved by replicating frequently accessed web page on proxy caches that are placed within the network. Caching can either be done at a client or in the network. Web proxy cache can potentially improve network performance by reducing the number of requests that reach the server, the volume of data transferred through the network and the latency. When a client requested page is not present in the cache then removal of one or more cached documents take place. The key aspect of the effectiveness of proxy caches is a document placement/replacement algorithm that can yield high hit rate. The decision by which document is removed from the cache is depends on different kinds of replacement policies used. A number of cache replacement algorithms have been proposed in recent studies, which attempt to minimize various cost metrics such as hit rate, byte hit rate, average latency and total cost. This paper presents one such technique that improves the cache performance by modifying Greedy-Dual-Frequency Size (GDFS) algorithm.

Keywords : Web Caching, Page Replacement, Proxy, latency