A Review of Web Caching Techniques and Caching Algorithms for Effective and Improved Caching

International Journal of Computer Applications
Foundation of Computer Science (FCS), NY, USA

Volume 128 - Number 10

Year of Publication: 2015

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Abstract

Internet today has become a victim of its own success. As the internet is reaching a global community, the World Wide Web is becoming a global-scale data dissemination system. There has been an increase in user latency, bandwidth utilization and server loads because of the increased number of World Wide Web users. Web caching is a technology for overcoming such performance bottlenecks by storing copies of popular web objects closer to users instead of deliberately accessing them from origin servers. Our study aims to review few caching architectures. These architectures include proxy caching, cooperative caching, adaptive caching, push caching and active caching. Furthermore, as it has been repeatedly observed, same data is transmitted over same network links time and again to thousands of users. Such redundancies desire the need for caching algorithms that optimally utilize the finite cache space. Chapter 1 discusses the introduction to the study and requirement of such solutions as we further proceed to discuss those solutions in Chapter 2. Chapter 3 discusses about metrics and factors that influence caching performance and Chapter 4 discusses algorithms that are used for caching.
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Index Terms

Computer Science (2) Algorithms

Keywords
Web Caching, Caching, Proxy Caching, Reverse Proxy Caching.