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Authors:

P. N. Nesarajan

M. Venkatachalam

T. Ranganayaki

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## Abstract

Web performance is very important. One way to improve performance is through caching. But caching is already widely used, and studies suggest that much of the theoretically achievable performance from caching is already being realized. Caching has reduced bandwidth consumption and downloads latency. On the other hand, web-caching is heavy to enlarge further due to the developing amount of non-cacheable dynamic web-documents. Increasing

the performance of web is an essential requirement, because its result in a huge increase in user supposed latency. This neat source of information establishes a basis for observations that can lead to improved overall performance for a given Web site. The main limitation focused in this method is to find out the optimal cache memory that should be keeping in order achieving maximum cost effectiveness. This method utilizes a successful Great Deluge algorithm based Particle Swarm Optimization (GDPSO) approach for achieving the best cache memory size which in turn decreases all the network cost. The investigation shows that hierarchical distributed caching can save important network cost through the use of the GDPSO algorithm.

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