Abstract

Unstructured systems are more supportive for present mass market where demands are changing day by day. It is always a challenge to design a more efficient search algorithm for unstructured file sharing systems. Flooding and random walk are commonly used techniques but have many limitations. Flooding has poor granularity and very high search cost due to its
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dependency on ttl. On the other hand random walk is more efficient with its random neighbor selection but it requires high search time. In this paper, we propose an approach to reduce random walks search time by reducing redundancy in algorithm. We have evaluated our changes in random walk on grid topology and our simulation results prove that by working on same network with same parameters, search performance of our approach is 3 times better than simple random walk.

Reference

- Xiuqi Li and Jie Wu, “Searching Techniques in Peer-to-Peer Networks” Department of Computer Science and Engineering, Florida Atlantic University.
- Lars Backstrom and Jure Leskovec,“ Supervised Random Walks:Predicting and Recommending Links in Social Networks”,WSDM’11, HongKong, China, , February9–12,2011.
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Index Terms

Computer Science
Distributed Systems

Key words

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Unstructured P2P network

Random Walk