Load Balancing in Cluster System using Entropy Value

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

Volume 135
Number 4

Year of Publication: 2016

Authors:
Pratibha S. Yalagi, Mitali M. Mohire, Sulabha S. Apte

10.5120/ijca2016908319
{bibtex}2016908319.bib{/bibtex}

Abstract

In a clustered system, the general problems in load balancing are: ill-planned task allocation, poor performance, long response time, and low throughput. The work focuses on a novel algorithm of load balancing, which is based on the entropy value for both wired and wireless connections. To improve the performance of a system the scheduling and migration policy are calculated on entropy value. The factors like the configuration of server and client, benchmark performance, time of communication between client and server systems and the system speed are considered. This novel algorithm is compared with traditional algorithm, like Round robin and the results shows that the time of execution reduces and the system performance is increased.

References

2. A. M. I. Mohammed and X. D. Lu “Performance of dynamic load balancing algorithm on cluster of workstations and PCs”, in year 2002.


Index Terms

Computer Science
Software Engineering

Keywords

Load balancing, entropy value calculation, clustered system.