Abstract

In this paper, one of the major objectives of distributed systems is performance. Load balancing
Situation based Load Balancer for Distributed Computing Systems is a concept used in computer networks to distribute the workload across the replicated system resources. Load balancing is the key driving factor to enhance the performance of the system. The requests of various clients are redirected to the available servers considering its existing workload. The main aim of the load balancing algorithms is to equally distribute the load the available servers. The algorithms also need to consider the processing power of each server. There are many load balancing algorithms available. Dynamism is also used in these algorithms to throw the task to the next eligible server. Simple load balancers use random choice and round robin algorithms. But the system use only one algorithm for the load balancing such as round robin or weighted or priority etc. But each algorithm would be efficient in one aspect and might be inefficient otherwise. In our paper, we try to use few algorithms and invoke them during a particular situation when they are efficient. Simulation results show that our load balancer significantly improves the average and total response time of client tasks and thus increases the performance of the overall system.

References

- W. G. Krebs, "Queue load-balancing/distributed batch processing and local rsh replacement system." 
- W. G. Krebs, "Queue Load Balancing / Distributed Batch Processecing and Local

Index Terms

Computer Science
Algorithms

Keywords
Load Balancing  Fcfs  Round Robin  Optimized Weight  Server Process Reporter
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And Distributed Systems. .