Abstract

The feature of load sharing or load balancing involves migration of running processes from highly loaded workstations of a network to the lightly-loaded or idle workstations of the network. This paper describes load balancing techniques to share the workload of the workstations belonging to a particular network to gain better performance from the overall network. The mechanisms of load information collection, determining the idle workstations as well as highly-loaded workstations, and transferring the load from one workstation to another workstation are represented in this paper. The paper describes a dynamic load balancing algorithm to achieve runtime performance gained by managing the jobs as they arrive. We have introduced the agent-based approach towards load balancing in this algorithm. The benefit of load balancing can be achieved through either the server-managed load balancing or the client-initiated load balancing, both of them having specific advantages and drawbacks. In this paper, both of these load balancing approaches have been supported by the presented algorithm in order to gain the benefits of reliability, fault tolerance and efficiency and high performance.
Mechanism for Implementation of Load Balancing using Process Migration

- Sinha, P. K.: “Distributed Operating Systems – Concepts and design”; PHI publications

Index Terms

Computer Science
Distributed Computing
Keywords
Server managed load balancing  client initiated load balancing.