Abstract

Due to the increasing adoption of the cloud in majority of the business, the level of traffic intensity is increasing leading to a challenging situation for traffic management in cloud. There were various algorithms in past that has discussed about the load balancing techniques concerning the cloud environment, but very few of them are found to be actually effective. The proposed system therefore presents a mathematical model exclusively considering virtual machine for performing load balancing. The system jointly addresses the routing as well as task scheduling and also focuses on the issues pertaining to resource allocation. The model is designed and compared with existing load balancing algorithms, where the simulation results shows better throughput by highlighting minimized waiting time for jobs with faster completion of task.

- Singhal, P., Shah, S. Load Balancing Algorithm over a Distributed Cloud Network.
- Mahapatra, S., Yuan, X. 2010. Load balancing mechanisms in data center networks. In the 7th Int. Conf. & Expo on Emerging Technologies for a Smarter World (CEWIT)
Mathematical Modelling of Joint Routing and Scheduling for an Effective Load Balancing in Cloud

Index Terms

Computer Science

Distributed Systems

Keywords