

A Two Level Load Balancing Approach for Cloud Environment

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Abstract : Cloud computing is the outcome of rapid growth of internet. Due to elastic nature of cloud computing and unpredictable behavior of user, load balancing is the major issue in cloud computing paradigm. An efficient load balancing technique can improve the performance in terms of efficient resource utilization and higher customer satisfaction. Load balancing can be implemented through task scheduling, resource allocation and task migration. Various parameters to analyze the performance of load balancing approach are response time, cost, data processing time and throughput. This paper demonstrates a two level load balancer approach by combining join idle queue and join shortest queue approach. Authors have used cloud analyst simulator to test proposed two level load balancer approach. The results are analyzed and compared with the existing algorithms and as observed, proposed work is one step ahead of existing techniques.

Keywords : cloud analyst, cloud computing, join idle queue, join shortest queue, load balancing, task scheduling

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