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RESEARCH ARTICLE

Weighted Moving Average Forecast Model based Prediction Service Broker Algorithm for Cloud Computing

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Abstract - Proper load balancing aids in minimizing resource consumption, implementing fail-over, enabling scalability, avoiding bottlenecks etc in cloud computing. In Cloud Computing Scenario Load Balancing is composed of selecting Data Center for upcoming request and Virtual machine management at individual Data Center. In this paper, we proposed and implemented Predictive Service Broker (DC selection) dynamic algorithm based on Weighted Moving Average Forecast Model in cloud computing. This study concludes that the proposed predictive DC selection algorithm mainly focus on reducing service response time observed at client side. The result shows drastic reduction in Response time at client side by using Predictive Weighted Moving Average Forecast DC selection algorithm. Various parameters are also identified such as Data Center request service times, Data Center hourly loading, total Data Transfer and Virtual machine costing and respective values are calculated.

Keywords - Cloud Computing; Response time; Data Center Selection Algorithm; Weighted Moving Average Model; Service Broker Policy.

Full Text: <http://www.ijcsmc.com/docs/papers/February2014/V3I2201423.pdf>