AN EFFICIENT LOAD BALANCING APPROACH IN CLOUD COMPUTING



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SUBMITTED BY
JAIMEEL SHAH (160300402002)

UNDER THE GUIDANCE OF

DR. CHIRAG PATEL

PARUL INSTITUTE OF TECHNOLOGY

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Ph. Scholar

(Jaimeel M Shah)

Research Guide

(Dr. Chirag I. Patel)

ABSTRACT

In today's world, cloud computing transformed into fundamental trendy expression in area of Information communication technology where most of business organizations are moving in direction of cloud domain as it provides 24*7 on-demand services and provides a platform to perform their works based on pay per use service model. Be that as it may, there are certain significant issues should be considered in the cloud computing environment. This research work centers around concentrating the presentation issues in two significant procedures in the cloud to be specific, assignment of tasks among the resources and proper resource utilization.

In this proposition, author has fundamentally scrutinize a portion of the current load balancing strategies for accomplishing balancing among resources in a cloud domain. These strategies have been tried through cloudsim system and results have been scrutinized down on different parameters. As a significant commitment in the area of balancing of assets, the author has proposed Dynamic Load Balancing based on Enhanced Grey Wolf Optimization approach named DLB-EGWO by consolidating attributes of the utilization of assets, Minimum Completion Time (MCT) and reducing latency time. The author has likewise implanted a optimization approach to overcome from the circumstance of overloading of assets. DLB-EGWO has been tried on the cloudsim simulation system and execute existing strategies with same platform and examination been done on significant parameter like turn around time, utilization of assets, and latency time. Moreover an another algorithm named Improved Priority Load Balancing approach based on Expectation Maximization method also designed for improvement of response time and utilization of assets. Result suggests that Dynamic load balancing approach based on Enhanced Grey Wolf Optimization and Improved Priority Load Balancing approach based on Expectation Maximization method is suitable for cloud domain.