ABSTRACT

Elasticity applications available in cloud computing environment presents cloud mobile services to process an effective mapping request on the cloud zone. Cloud mobile services guarantee flexible services for various ranges of business customer conditions and it allocated from different infrastructure forms. The cloud mobile computing policy describes the algorithms on different QoS expectations such as energy, power, CPU load, memory and cost. Elasticity in cloud computing is the capability for the mobile services to change its cost conditions in terms of requirements in relation to operational conditions. Flexibility and cost factor plays the significant task to ability planning in cloud computing.

Existing Research works are conducted on energy-aware resource allocation used heuristics method by offering significant cloud services for both the resource providers and consumers. But the QoS and power usage characteristics of the devices failed to improve the energy-efficient organization on elastic cloud computing environments. Secure mobile cloud computing as described in adopted services to the risk platforms. Mobile Cloud Computing (MCC) guaranteed the user privacy but failed to have a host trusted domain module on other cloud service providers.

Cost-effective Cloud High Performance Computing Resource Provisioning by Semi-Elastic Cluster (SEC) model combines all the resource strategies into a unique set on the public cloud. However, SEC does not forecast the entire number of instances within the time interval so that the CPU load is raised in the cloud elasticity environment. Cloud Computing Services for Many-Tasks Scientific Computing focused on calculating performance of MTC. However, performance of MTC system over utilizes the CPU load and high latency in the cloud mobile media network. The cloud mobile resources are not efficient on transparent energy usage based on elastic
applications because the components are restructured depending on the workload conditions. While public cloud combines all the resource strategies on scientific workloads, the CPU load is raised and is not effective in solving the optimization problem in different elasticity cloud applications.

Cost-sensitive elastic scaling method in the cloud mobile devices detects and examines the multi-tier cloud-based bottleneck. Workload-adaptive technique in elastic scaling method reaches the effective cloud elasticity organization. Cost-effective Cloud HPC Resource Provisioning by SEC model combines all the resource strategies into a unique set on the public cloud. SEC produce lowers cost but deserves bigger wait time. However, on-demand cloud cluster provisioning is not latency-free. The cost effective ability is the important task on the various cloud mobile services. Several techniques perform elastic application model on cloud mobile devices but fails to run cloud on different device with minimal service cost.

The proposed Machine Flow based Energy-Power Approximation (MFEPA) method achieves energy efficient system for the cloud mobile services. Initially, with the application of Multi-grid approximation technique, the appearance of energy consumption is reduced. Next, similarly power consumption is reducing by using look-ahead control on mobile cloud services. Here, coarser structure is reduce with the details of Multiple grid (i.e.,) machines is mapped back to the inventive grid. The mapping technique decreases the energy usage and proves to be efficient on the terminal mainframe mobile communications. The Look-ahead control in proposed MFEPA method decreases the power utilization on the wireless interface.

Next, Dynamic Prioritized Load Balanced Round Robin (DP-LBRR) framework is constructed with the Load Balanced Round Robin algorithm. DP-LBRR framework executing various types of user requests from different cloud mobile environments by
Allocating each virtual machine in a cyclic order for reducing the latency time. This framework improves the CPU load scheduling efficiency and reduces the memory utilization through load scheduling in cloud elasticity environment. Executing the Dynamic Priority Load Scheduler with LBRR algorithm in DP-LBRR framework, decreases the memory utilization and therefore improving the scheduling efficiency in an efficient way between successive user requests.

Finally, Dual-cost Responsive on Cloud Mobile Services (DRCMS) Mechanism improves the elasticity on cloud services. In DRCMS technique there are two types of cost provisioning method is introduced to reduce the cost factor on different cloud mobile devices. In leasing-cost responsive work, estimation is based on the type of the mobile cloud Virtual Machine and the active condition for processing. Both shift and leasing cost is reduced using integer linear program. The dual cost responsive algorithm with extensive results verifies the higher flexibility rate in cloud mobile devices.

The performance analysis of proposed MFEPA method, DP-LBRR framework and DRCMS mechanism is performed in Java language with CloudSim simulator environment. The CloudSim simulator is executed on Cloud environment that offers dissimilar resource patterns for a number of virtual machines. The particular toolkit is preferred as a simulation platform as it is a present simulation structure in Cloud environments. The CloudSim requires least cost and occurrence to execute Cloud-based request provisioning test environment. Initially, energy consumption is reduced by 22% using MFEPA method that carries terminal mainframe communication. Next, DP-LBRR Method with the application of priority values by Dynamic Priority Load Scheduler increases the load scheduling efficiency by 12%. Finally, cloud server and maximum customer request increases the leasing cost ratio by 19% and reduces the latency time by 39% with Leasing Cost Reactive model using DRCMS Method in cloud applications.