CHAPTER 7
CONCLUSION AND FUTURE DIRECTION

7.1. CONCLUSION

Machine Flow based Energy-Power Approximation (MFEPA) method is introduced to achieve energy efficient system for the cloud mobile services. The construction of MFEPA method is attained with the help of Multi-grid approximation technique and Look-ahead control mechanism. Initially, with the application of Multi-grid approximation technique, the performance of energy consumption is reduced. This technique decreases the coarser arrangement and the obtained result is mapped back to the unique grid.

The mapping reduces the energy on the excessive computing load and works effectively on the terminal mainframe mobile services. Thus the proposed MFEPA algorithm attains comparable services reducing the energy on the unnecessary computing load and is very effective on energy-power saving. Next, Look-ahead control mechanism is used for minimizing the power consumption on mobile cloud services.

Look-ahead control allocates the weight to all expected users and performs the operations to reduce the power usage on the wireless interface. MFEPA Algorithm decreases the memory utilization, so that the profit margin of the business providers with Infrastructure as a Service (IaaS) is also increased. Minimization of the power increases the performance on the elasticity cloud applications.
Next, Dynamic Prioritized Load Balanced Round Robin (DP-LBRR) framework is constructed based on the Load Balanced Round Robin algorithm. The allocation of load to the CPU planning to balance the load rate is generally carried and directed with Load Balancing Round Robin algorithm that are designed in proposed DP-LBRR framework.

The numerous requests are generated based on CPU planning from different cloud mobile environment that assigns each virtual machine in CPU with cyclic order in order to reduce the latency time. A Dynamic Priority Load Scheduler is included in proposed LBRR algorithm by using priority values. This load scheduler is located in the cloud system for minimizing the memory utilization and solves the optimization difficulties in the elasticity cloud services.

The priority value is calculated in the Dynamic Prioritized Load Balanced Round Robin framework based on the active priority model aiming at reducing the memory utilization. The active priority locates the maximum and the next maximum priority nodes for easy scheduling in the cloud mobile environments and hence the scheduling efficiency in the elasticity cloud services is improved.

Finally, an effective Dual-Cost Responsive on Cloud Mobile Services (DRCMS) Mechanism is implemented for improving the elasticity on cloud services. The DRCMS Mechanism executing various categories of requirements from different cloud mobile environments.
In DRCMS mechanism, dual cost represents the leasing and shift cost in the elasticity application. In leasing-cost responsive work, calculation is based on the category of the mobile cloud Virtual Machine (VM) and the amount of virtual machine which is in active condition for processing. Cloud virtual machine calculates the highest request charge and differentiates each VM individually in the elasticity cloud applications.

The shift cost responsive work is introduced DRCE mechanism to compute the shift latency in moving elasticity application. Using Integer Linear Program (ILP) both leasing and shift cost is reduced. Finally, dual cost responsive algorithm is used to examine the two cost criteria for managing the profits up and down in the elasticity of cloud services.

The DRCMS with long term result denotes the maximum elasticity rate in cloud mobile devices. The dual cost responsive algorithm with extensive results verifies the higher flexibility rate in cloud mobile devices. The experimental evaluation is performed in Java language with CloudSim simulator environment.

The CloudSim simulator performed on Cloud environment provides different resource patterns for a number of virtual machines. Each virtual machine is constructed with an exact amount of memory, CPUs and local storage. The particular toolkit is chosen as a simulation platform as it is a present simulation structure in Cloud environments.
The CloudSim requires minimum cost and instance to perform Cloud-based request provisioning test environment. Initially, MFEPA method carries terminal mainframe communication in order to provide 22% lesser energy consumption. Next, DP-LBRR Method increases the load scheduling efficiency by 12% with the application of priority values by Dynamic Priority Load Scheduler.

Finally, DRCMS Method uses Leasing Cost Reactive model in cloud applications. By increasing the cloud server and maximum customer request, the leasing cost ratio is decreased by 19% and 39% of latency time is reduced significantly.

7.2. LIMITATIONS

Cloud mobile services agree flexible services for various ranges of business customer situations and it allocated from different communication forms. 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. The cost effective ability is the important task on the various cloud mobile services.

The cloud mobile model consists of difficulty on energy saving and power utilization on particular cloud devices. Several techniques perform elastic application model on cloud mobile devices but fails to run cloud on different device with minimal service cost. However, it requires additional dual cost responsive algorithm for managing the benefits in the elasticity of cloud services.
7.3. FUTURE DIRECTION

The future direction of proposed work provides highest service devices with minimum service cost. The proposed future approach on cloud mobile devices performs better elasticity in many applications and examines maximum flexibility. Finally, servers provide better conditions in cloud computing to reduce the factor by allocation the load with cloud elastic applications.