

## ABSTRACT

*The concept of cloud computing revolves around the acquisition and release of resources from data centers via the internet. Cloud computing, as an internet-based dynamic computing system, can experience surges in demand. Load balancing is an important aspect of resource distribution that ensures that no machine is overloaded and that resources are used to their full potential.*

*Load balancing is a technique for distributing cloud computing workload over many servers. Haproxy is an open source load balancing and failover web server that supports load balancing and failover. If the application has a reasonably strict SLA and does not tolerate downtime, Haproxy is a must-have. Furthermore, Haproxy provides for backups of the load balancer in use, so that if the main load balancer goes down, the load balancer that becomes a backup in a short period of time will instantly replace the dead load balancer.*

*The Round Robin algorithm is a widely used process scheduling mechanism in CPU scheduling. For each task to be executed by the CPU, the Round Robin algorithm uses a time sharing system with static quantum time. The size of the specified quantum time determines the algorithm.*

*Keywords: Cloud Computing, Load balancing, Haproxy, Round Robin*