

ABSTRACT

Currently the Internet has changed rapidly, as more and more users are connected to the Internet network to get services multimedia and tripleplay. When a single server in the IPTV network to get requests from many users that are likely to occur overload and crash, so requests can not be served by a single server and the Real Time Video takes a long time.

Load Balancer Architecture applied to the IPTV server side as a high-performance server is one solution that effectively and efficiently to resolve the issue. Load Balancer Architecture can be built using the concept of network load balancing and high-availability that enables the HTTP request or Streaming Server distributed divided into several computers, one way to use linux virtual server technology that is integrated with Network Address Translation (NAT).

In this final task was to implement a virtual server linux systems as distributors of traffic load on the IPTV network aimed to determine the level of performance and capabilities of the Real Server as a service provider IPTV Broadcast and Multimedia streaming media Web applications. Experiments conducted with two main scenarios, ie performance and test system interruptions. Applications that run in the system that is http using several parameters including throughput observations, Request Loss, CPU Utilization and Response Time.

The results of the Load Balancer implementation of IPTV network using LVS-NAT is able to be used by people who will make IPTV services with high levels of availability and good performance, because according to the measurement obtained is the maximum HTTP request 3600 requests per second with an increase of 13 , 92% of the single server, with a high enough throughput compared to single server and requests a small loss due to use of the system at the Real Server Clustering that IPTV service is not overloaded.

Keywords : Load Balancer, Linux Virtual Server, NAT, IPTV, HTTP request