

ABSTRACT

In managing a computer network requires configuration so that a network infrastructure can function properly. To simplify the configuration of network devices requires an efficient technology that can be used by the wider community. Software Defined Network (SDN) is a new technology on a computer network, where this technology separates the data forwarding function (data plane) with the network control function (control plane) to program the device as desired centrally (SDN controller), then the control become centralized and do not need a lot of configuration on each network device, making it easier for network administrators to configure, monitor, and control a computer network in the control plane.

Load balancing is a technique for dividing traffic loads on two or more servers equally. F5 BIG-IP is a load balancer that supports various types of services such as HTTP, FTP, and VoIP. The scheduling algorithm used is round robin and least connection.

In this final project has carried out the design of the implementation of load balancing on Web server, FTP server, and VoIP server services using Round Robin and Least Connection algorithms that are applied to SDN networks using ONOS controller. The test parameters used in the form of Throughput, Response time, Request loss, Block call and CPU Utilization.

Keywords: software defined network, load balancing, round robin, least connection