Abstract

Quality of Service (QoS) is a collection of the service performance effect which determines the satisfaction of users level towards a service. But in a service that uses computer networks need to implement a network security which functions ensure the security and data availability for users. The selection method that will be applied to network security must be considered carefully, so as not to adversely affect QoS. It is also worth noting at all services, including streaming media services.

One of the network security methods that used to control packets traffic is Stateful Packet Inspection (SPI), which in this final assignment will be examined how they affect the QoS of streaming video service with RTSP protocol. SPI will be implemented on the MikroTik RouterOS based stateful firewall on a domain with Diffserv QoS model. The aim is to examine how the effect of SPI implementation towards QoS model.

The analysis of all the scenarios that were tested showed that the implementation of SPI will degrade the quality of service. However, the SPI will maintain quality services at the network filled with unwanted traffic, in this case is a UDP flood.

Keyword: Stateful Packet Inspection, Quality of Service, Differentiated Service, Mikrotik, Media Streaming