ABSTRACT

Routing is the process by which a router forwards packets to the destination network. A router makes decisions based on the IP address designated by the package. There are two ways of sending the routing information there are static routing or dynamic routing. In dynamic routing, there are distance vector and link state. Examples of dynamic routing protocol based on link state is the Open Shortest Path First (OSPF).

Video Streaming is one of the real time service which is very sensitive to delay, and packet loss. These services also require substantial bandwidth. So with the Differentiated Service provides differentiated services and RSVP which makes the path and resources to overcome the decrease QoS in video streaming service.

In this final project, implementation of video streaming on the network using OSPF routing protocol with DiffServ and RSVP. With a simple topology using the network emulator GNS3. Then will be analyzed the quality of video streaming sent over the network by changing the parameters of the existing background traffic and link failure.

From the results of emulation showed that the use of RSVP can produce better QoS than DiffServ in terms of packet loss, throughput, and delay. While, with DiffServ jitter is better than RSVP.

Keywords: dynamic routing, OSPF, video streaming, RSVP, DiffServ, QoS