ABSTRACT

This final project tries to explain the concept of Protocol Redundancy VRRP, GLBP and HSRP, test and analyze the comparison of streaming video traffic load performance and measure QOS Throughput, Delay, and Packet Loss on the three networks using Graphical Simulator Network Simulator 3 (GNS3) and Wireshark. I compared the QOS performance of the three Protocol Redundancy with video resolutions of 720p and 1080p. The results of the QOS performance throughput of the VRRP network are; 720P (178,373 Bytes / s), 1080P (322,599 Bytes / s), The GLBP network throughput is; 720P (177,022 Bytes / s), 1080P (321,001 Bytes / s), HSRP network throughput is; 720P (177,594 Bytes / s), 1080P (321,001 Bytes / s), The results of the VRRP network's QOS Delay performance are; 720P (5,897 ms), 1080P (3,703 ms), the GBLP network delay is; 720P (5,936 ms), 1080P (3,720 ms), HSRP network is; 720P (5,921 ms), 1080P (3,711 ms). The average VRRP throughput compared to the throughput on HSRP and GLBP is greater, meaning that the greater the throughput value the better the performance. The average delay VRRP is smaller than the delay in HSRP and GLBP, meaning that the smaller the delay, the better the performance. Average packet loss VRRP, HSRP and GLBP From the test results and performance measurement of Packet Loss there is no significant difference because all of them have the same Packet Loss value, namely 0% which is in the Very Good category according to the TIPHON standard.

Keyword: VRRP, HSRP, GLBP, *Video Streaming, Throughput, Delay, Packet Loss.*