ABSTRACT

Information technology that is increasingly developing makes users (users) increase. In order for fast delivery, OSPF and MPLS routing protocols are used by utilizing existing labels to speed up routing. With increasing users, it is not possible for a network device to not experience downtime, so a standby router is needed so that when a network device experiences downtime the network will not be interrupted with Hot Standby Router Protocol (HSRP) technology.

The research method is divided into literature study, network design, implementation, report preparation. This research was conducted by creating a network using the HSRP method. Testing is done using the ping and traceroute commands, to test for failover on HSRP.

From the results of tests that have been done, it shows that using the HSRP method can have a network impact with a packet loss of 0%, a throughput of 564 kbps, a delay of 0.013 s on data services with 150 mbps of background traffic. Packet loss of 19.33%, throughput of 106 kbps, delay of 22 ms on voip service with 150 mbps of background traffic. Packet loss of 0%, throughput of 8 kbps, delay of 474 ms on video stream services with 150 mbps of background traffic.

Keyword : OSPF, MPLS, HSRP, *Redudancy*