

## ***ABSTRACT***

### ***PERFORMANCE ANALYSIS OF OSPF AND RIP ROUTING PROTOCOLS ON FRROUTING***

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*Almost all people, from school children, teenagers and adults, use internet technology as a necessity for communicating and exchanging data. It is this ease of exchanging data that causes data traffic on the internet network to slow down due to soaring users. OSPF is a routing protocol that can use IPv4 and IPv6 addresses using the link-state method. To determine the path on each route using Dijkstra's algorithm. RIP is a routing protocol using the distance-vector method found in the Autonomus System. RIP protocol routing uses hops where in this routing protocol the maximum number of hops is 15. The result of the delay using the UDP protocol is that the OSPF routing protocol gets the highest delay of 6.931 ms and the lowest value of 5.886 ms. Meanwhile, the RIP routing protocol gets the highest result of 9.701 ms and the lowest is 5.766 ms. In the delay test using the UDP protocol, the results of the OSPF routing protocol were better than the RIP protocol routing at data sizes of 20 Mega Bytes, 40 Mega Bytes, and 50 Mega Bytes. The results of packet loss testing on the OSPF and RIP routing protocols using the UDP protocol, namely each OSPF and RIP routing protocols get 0% results. While the results of packet loss testing using the TCP routing protocol RIP protocol are better than the OSPF routing protocol. Throughput testing on the OSPF and RIP routing protocols using the UDP protocol is that the OSPF routing protocol is better than the RIP routing protocol. In testing the throughput using the TCP routing protocol, the RIP protocol is better than the OSPF routing protocol. In jitter testing using the UDP routing protocol, the OSPF protocol is better than the RIP routing protocol.*

**Keywords:** *Protocol Routing, OSPF, RIP, Delay, Packet loss, Throughput, Jitter*