ABSTRAK

Routing adalah proses pemilihan rute terbaik untuk suatu paket data agar dapat sampai pada tujuannya. Proses pada routing sangat dibutuhkan dalam proses pengiriman data. Penelitian ini melakukan perbandingan 2 (dua) buah *routing protocol routing open shortest path first* (*OSPF)* dan *enchanced interior gateway routing protocol (EIGRP).* Kinerja pada jaringan ini dievaluasi menggunakan simulator *GNS3* dan aplikasi *Wireshark* dengan memperhatikan parameter *quality of service* (*QOS*) seperti *delay, throughput* dan *packet loss* pada kedua routing protocol yang digunakan. Berdasarkan hasil pengujian maka diperoleh nilai *delay* sebesar 4,80755 *ms* pada *OSPF* dan 7,88347 *ms* pada *EIGRP*, nilai *throughput* sebesar 1,82% *bps* pada *OSPF* dan 1.84% *bps* pada *EIGRP* serta nilai *packet loss* sebesar sebesar 4% pada *OSPF* dan 6% pada *EIGRP*. Dengan demikian diketahui bahwa kinerja routing *protocol OSPF* untuk nilai *delay, throughput* dan *packet loss* lebih unggul dibandingkan routing *protocol EIGRP.*

Kata kunci: *open shortest path first (OSPF), enchanced interior gateway routing protocol (EIGRP), quality of service (QoS), wireshark, GNS3.*

ABSTRACT

Routing2 is the process of selecting the "best route for a data packet to reach its destination. The process of routing is needed in the process of sending data. This study compares two (2) open shortest path first (OSPF) open routing protocols and enhanced interior gateway routing (EIGRP) protocols. Performance on this network is evaluated using the GNS3 simulator and Wireshark applications by taking into account quality of service (QOS) parameters such as delay, throughput and packet loss in the two routing protocols used. Based on the test results, we obtained a delay value of 4.80755 ms on OSPF and 7.88347 ms on EIGRP, a throughput of 1.82% bps on OSPF and 1.84% bps on EIGRP and a packet loss value of 4% at 3OSPF and 6% on EIGRP. Thus "it is known that the performance of the OSPF routing protocol for the value of delay, throughput and packet loss is superior to the EIGRP routing protocol.

Keywords: open shortest path "first (OSPF), enhanced interior gateway routing protocol (EIGRP), quality of service (QoS), wireshark," GNS3.