ABSTRACT

The development of today's Internet technology is growing rapidly from year to year making IP-based services on the network is increasingly in demand. That resulted in stock depletion of IPv4 while growing demand for IP. Therefore, to meet the demand for IP were created IPv6. And just like IPv4 to communicate with each other in the IPv6 routing protocol is needed.

There are several routing protocols that can be used on IPv6. Some of them are the Open Shortest Path First version 3 (OSPFv3) IPv6 and enhanced interior gateway routing protocol (EIGRP IPv6). OSPFv3 routing protocol is the public that uses algorithms link state routing protocol, while IPv6 EIGRP Cisco applying artificial hybrid algorithm.

In this thesis, will be simulated using the network simulator scenarios that describe the network topology that uses IPv6 OSPFv3 and EIGRP. Simulations performed using GNS3 with performance parameters tested include the speed of updating routing tables, event detection, packet loss, jitter, throughput and queue delay with utilasi network is at 25.2 kbps,42.1 kbps,67.3 kbps, dan 84.2 kbps

In the simulation results found that the performance of EIGRP IPv6 OSPFv3 will be better than in terms of packet loss, throughput and jitter, but the delay and event detection down OSPFv3 network is superior.

Key words: OSPFv3, EIGRP IPv6, IPv6