

ABSTRACT

Along with the development of Internet technology and the increasing number of user devices, Internet Protocol address provided Version 4 (IPv4) as many as 2^{32} are no longer enough to cover the growing number of Internet users there. The Internet Protocol Version 6 (IPv6) is present to enhance the technological shortcomings of IPv4, such as in terms of addressing and mobility.

With the mobile IPv6, conducted simulations to determine the quality of a network of IPv6-based network mobility networks (NEMO), which consists of several components of the home agent, foreign agent and mobile router. Where the mobile router will travel from the home network to a foreign network handover method. At the handover, the mobile router will keep in touch with other ipv6 devices.

From some scenarios such as speed and the number of mobile routers ipv6 devices handover delay analysis results obtained at 3.27 s, the magnitude of the average packet loss of 4.67% and categorized both by ITU. The amount of round trip time by an average of 5.35 ms.

Keywords: MIPv6, NEMO, Mobility, Handover