

ABSTRACT

Politeknik Siber Sandi Negara (PoltekSSN) is one of the leading official universities located in Ciseeng. PoltekSSN has adequate internet network facilities. Computer Network Labor has a major problem in terms of data transfer from the server to the client which makes data transfer poor, for this reason one way to overcome this is by implementing Dual Stack IPv6 to speed up data transfer on computer networks. By building this Dual Stack Implementation design, it can overcome the problem of limited IP addresses and increase the efficiency of data transfer when using bandwidth both locally and on the internet. The Dual Stack IPv6 implementation is used to manage traffic performance on the network to make network use more efficient. In this research, simulation, configuration and verification of IPv6 Dual Stack were carried out using a Cisco router on the EVE-NG network simulator version 5.0.1-19-Community. Implementing Dual Stack IPv6 using a Cisco router with RIP (Routing Information Protocol) routing will have a significant impact on network usage.

Keywords: Dual Stack, IPv6, Cisco, EVE-NG, RIP