Abstract

Protocol is a set of rules which is used to manage communication and data exchange between multiple computers. Internet Protocol (IP) itself is a protocol which is assigned to give address into all of computers/hosts in TCP/IP based network. But, as the technology grows and develops, IPv4 is started to be replaced by IPv6 because IPv4 has the restriction in the form of host addressing. This transition is done in step by step or stages, because those IP have mostly different architecture and most of hardwares still implement IPv4. There are three methIDS for the transition: Dual Stack, Tunneling, and Translation. This Final Project will be focused in Tunneling Method with Dual Stack Transition Mechanism (DSTM).

DSTM is transition method which provides Dual Stack IP where IPv4 allocation is done automatically, therefore DSTM is widely used. But, there are lack of security in DSTM because DSTM has a weakness against Distributed Denial of Service (DDoS)[6], Man in the Middle Attack (MITM), dan Sniffing. In order to make DSTM Security always maintained and preserved, necessity to handle those attack is precedence.

Keywords: *IPv6, tunneling, dual stack transition mechanism, security.*