

Abstract

System security can guarantee user in security aspect to communicate with another user or with the server. Each user in a network, especially Wireless Local Area Network (WLAN) needs high mobility, and guarantee in privacy and confidentiality. With the development of wireless network needs security from every aspect, whether it is active security or passive security. Active security means giving user a guarantee of availability in accessing wireless network against active attack, such as Denial of Service (DoS) or Distributed Denial of Service (DDoS). Passive security means giving guarantee in data confidentiality which is transmitted through the network against sniffing.

Crypto IP Encapsulation (CIPE) is a method which is mainly used to secure Virtual Private Network (VPN) connection. The implementation in wireless network is possible because CIPE just adding a virtual interface which is placed between transport layer and network layer in Open System Interconnection (OSI) layer, so it does not affect the physical layer. The Operating System that will be used in CIPE implementation is Debian 4 Etch with recompiled kernel of 2.6.18.8.

By using CIPE, man-in-the-middle attack such as eavesdropping and traffic analysis can be prevented though the encryption function is deactivated. The encryption function is not used because incompatibility with the hardware platform, which is Symmetric Multi Processing (SMP) processor.

Keyword : network security, man-in-the-middle attack, CIPE.