ABSTRACT

The amenity of IP network development will give the feature network communication impact that make the IP communication network as future communication system. Communications voice at data network (internet) called as VoIP (Voice Over Internet Protocol).

VoIP represent an alternative of future communication that replaced communications based-on PSTN (Public Switch Telephone Network). This condition happen because of the PSTN network system using close platform and only the provider can develop it. Others, the one of superiority of VoIP has open platform communication system so that many communities can develop it. VoIP use IP network as its communication media so that the expense of VoIP communications will much more cheaper than a communications via PSTN. Not only give the amenity, the VoIP communication will give some problems. One of the problems is security of network and privation at the time of VoIP communication. The open platform of VoIP communication system in IP network makes everybody can learn and develop VoIP, and also destruct and hijack that system.

In this final project "Implementation of SIP VoIP using Secure Real-Time Transport Protocol (SRTP) on Asterisk Server" was implemented the VoIP communication system that has protection from hijack or destruct threat at the time of signaling and data streaming. The result express that at VoIP communication system without protection (RTP) found a lot of weakness points which can be exploited by VoIP hacking tool. For example, a thief and destruct the contents of message. While, the system of VoIP communication with SRTP was give protection from VoIP security threat.

Keyword : *VoIP, SIP, SRTP, Asterisk Server.*