

ABSTRACT

Along with the development of the age, the human needs of the technology will increase. Among them is the needs of a large company which has many branch companies that want to communicate with the branches, and their business partners in different countries. There have been some alternative that can be used. One of them is using the existing communication service provider, through the cable network or wireless network. However, That services is expensive. The company will experience difficulties in managing the expenditure for these services. Therefore, the solutions in communication technology that is far more effective and efficient both in terms of quantity and quality is needed. One of the communication technology that can meet these needs, is the VoIP technology.

This final Project will design a system prototype for *VoIP Calling Number translation to local PSTN number using Asterisk Softswitch*. The system implementation consist of two different IP network, with two PC with softphone application, one computer as a IP PBX device, one analog telephone device, and two computer system as a VoIP server and a ASTERISK softswitch. The Communication occurs when the softphone in the VoIP network calling the analog telephone in the PSTN network. The softphone calling through the ASTERISK softswitch that will act as the translator to the PSTN network, translating the VoIP number to the PSTN local number, and then connecting the call to destination extension number on the PSTN network.

The results of this final project is to designing a translation system that can translate the VoIP number to local PSTN number using ASTERISK softswitch and applied it on to companies that want to contact the company branch or partners through the PSTN network with the cost that is equivalent to the call of local communication.

Key Words : VoIP server, ASTERISK softswitch, softphone, extension, PSTN, IP Network