ABSTRACT

Softswitch will take a strategic role place in the infrastructure of private and public network at the future. Not only handling packet network communication but also to have an ability to replace central office (*PSTN*) serving analog phone subscriber which is the network had been exised before. As an open standard technologi, *softswitch* need to be expanding in the academic surrounding. Having no network to take a research or doing tesbed make it become a problem.

In this final project had developed a network based on *softswitch*, with configuring some elemens as a *softswitch*, *PC*, *IP Phone*, *Analog phone*, *Router*, and so become a *softswitch* network base with *IP* network packet as the transport. This sceme include design and configuring the network, setup connectivity, functional test, and analysis of the communication yielded.

after being done three kinds of scenario communication, between *PC* Phone to Analog phone first, *PC* Phone to *IP* Phone second and communication between two *PC*s, with three kinds of codecs *PCM-A* (G-711), *PCM-*μ (G-711) and *GSM* 06.10, have a good result. The quality of voice transmit *MOS* much the some, equal to 4.26.