ABSTRACT

The growth of technological developments have penetrated the world of telecommunications. If the first generation phone with wired telephone network or PSTN network usage is very broad, but the current existences of it are rarely found in the digital telecommunications network or particularly VoIP (Voice over Internet Protocol). The cost of this technology is much cheaper than regular phone, so if it really applied widely, it is not impossible VoIP will eventually replace the existence of analog phone era.

SIP is a peer-to-peer signaling protocol, developed by the Internet Engineering Task Force (IETF), which allows its endpoints to initiate and terminate communication sessions. In IP and traditional telephone, always distinguish clearly two phases of voice calls

In this thesis, how to build a system capable of serving the communications VOIP using SIP-based network on Android smartphone.

From the analysis and implementation of VoIP were done in this final project, we obtained results that VoIP SIP-based mobile application on Android smartphones that uses Wifi intermediaries as a medium for the Asterisk server.

Keywords: VoIP, Java, Android, Mobile Application, WiFi.