

ABSTRACT

Voice Over Internet Protocol (VOIP) Technology is growing so fast, this technology allow us to communicate using text, voice, or video call over an Internet Protocol (IP) network. Then, the smartphone operating system is being rapidly growing such as Android, Windows Phone, iOS, and so on. In recent years, VoIP application for smartphones are increasingly popular but VoIP applications that are opensource and crossplatform still underdeveloped. Therefore, this final project is explaining the development of Opensource Multiplatform VOIP Client using SIP Framework based on Javascript.

The application development of this VoIP Client apps began with the design of the API as a bridge between the database server and an application, client web application is developed using bootstrap CSS Framework, angularJS as a web framework, and for the gateway from client to the VOIP server, author using the WebRTC technology with Javascript SIP Framework. While the development of mobile client application uses Crosswalk for reusing code from web application.

The results obtained after the making of this final project is a VoIP SIP Client application that can run on website or android. The license of the source code will be opensource. The MOS QOS Value of voice call using this application is about 4.24 and for video is about 4.25 or has a good quality.

Keywords : VoIP, SIP, Javascript, Multiplatform, Webrtc.