

## ABSTRACT

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*The presence of the phone for the Indonesian people has become commonplace. Even today it can be said communication sistem has evolved, as evidenced by the presence of mobile phone (cellular) which uses advanced technology. One implementation of a telecommunication sistem that includes voice traffic over computer networks is Voice Over Internet Protocol (VoIP).*

*VoIP technology is defined as a sistem uses the internet to transmit voice packets of data from one place to another. Use of the Internet network enables cost reduction. Emphasis may be the use of personal computers and supported by hardware and software based on open source VoIP related configuration. Asterisk is a software that supports VoIP technology in dealing with the complexities of the VoIP sistem. The sistem also discusses Quality of Service and security systems of VoIP technology.*

*The implementation of these applications utilized one of the companies in which the Company Telkom Indonesia in communication. With the design and testing of QoS it can be concluded the effectiveness and efficiency of VoIP technology based on the parameters specified. Similarly, the analysis of the security sistem so that, admins can design systems become more secure VoIP technology to allow users to feel more comfortable.*

*Keywords: VoIP, Asterisk, QoS, SRTP*