## **ABSTRACT**

The use of VoIP that has been widely used by both public and private entities make VoIP as one of the fastest growing features. But until now the problem how to keep the quality of VoIP in accordance with the standards set always being a study material from time to time. Especially when the available computer network services are still limited, for example in terms of provision of adequate bandwidth. To overcome these conditions required a mechanism that can improve the quality of VoIP, so that users can be satisfied in using IP-based voice. In this research, the mechanism of VoIP quality improvement by overlaying the network and integration with the cloud for the laying of VoIP servers to prevent hardware related constraints is resolved.

**Key word:** VoIP, Overlay Network, Cloud