

## Abstract

Convergence between network will generate a network that provides mobility and flexibility in progress. Next Generation Network development in the world of telecommunications networks towards to Internet Protocol system. This is in because of the flexibility provided by IP networks, as well as ease in the development of existing services to make the variety of services on offer. One service offered is a VoIP (Voice over Internet protocol). VoIP is the kind of services capable of passing voice services into the IP network so as to make telecommunications links between users who are connected in an IP network.

Open source software such as Asterisk which is a softswitch-based software that can connect between packet networks and circuit networks, and software OpenSips that is in use as a SIP server that is a core component of a SIP based VoIP service, but have weaknesses to connect in the existing network . Expected development of both server interconnect provides a system that utilizes both software so that the excess is more efficient and reliable system.

In the final project titled "Analysis Implementation Interconnection of OpenSIPS server and Asterisk server for VoIP services" created a system that combines VoIP communication between the Asterisk server as a media server and OpenSIPS as SIP servers. Then the measured performance parameters include the Post Dial Delay, Delay Process, and maximum simultaneous calls for each server and system interconnection, and Quality of Service.

In this test showed that the highest value from the Asterisk server PDD is 1.097 seconds with a maximum of 15 simultaneous calls calls / sec, the server Opensips worth 0.1056 seconds with rate 200 calls / sec, the interconnection system is worth 0.350080 with a maximum rate of 200 calls / sec (SIP to SIP user), and for SIP to Analog users worth 1.4500 seconds with a maximum rate 200 calls/sec. While the process occurs most major delay in the signal INVITE.

Keywords: VoIP, Asterisk, OpenSIPS, Softswitch, SIP