ABSTRACT

Technology development nowadays rapidly involved, network communication technology included. Tomorrow's network technology or usually called by *Next Generation Network*, is a convergence of all network's platform and based on *IP (Internet Protocol)*. Implementation of *NGN* supported by *softswitch. Sowfswitch* mostly builded by *Asterisk, OpenSIPS, Trixbox*, etc. as the software. *OpenSIPS (Open SIP Server)* is an *open source SIP server* implemented software. *OpenSIPS* is way much better and more efficient than *Asterisk* because it doesn't use B2BUA system, but it is lack in circuit network bridging. In other hand, *Asterisk* itself has a good ability in connecting with the circuit network, but less efficient, because of the B2BUA system that it had. Besides those two, in supporting the *IP based* communication there is *IP PBX*, an *IP* central. The problem is, how these components to communicate with each other, and how to ease the *client* that has many *accounts* so as to use only one number which is accessible by any *interface.*

In this final project, that titled by "**ENUM Server Impelementation's Analysis On OpenSIPS Server, Asterisk Server, and IP PBX Interconnection System For VoIP Service**", given a way to do *OpenSIPS, Asterisk,* and *IP PBX* interconnection, and managing number using *ENUM (Electronic Number Mapping)*. *OpenSIPS* and *Asterisk* system builded on *Linux Ubuntu* operating system, and using *Panasonic KX-TDE200* for the *IP PBX*.

From this research, known that interconnection system has 0.088319 s longer in *PDD*'s time. And for *ENUM* adding *PDD*'s time in all system about 0.196367 s in average. Interconnecting those *servers* not affect much for *QoS*, but significantly affect when *call setup* occur, or in other words it affects the *PDD.*

Keywords : *NGN, OpenSIPS, Asterisk, IP PBX, ENUM, PDD, QoS*