

ABSTRACT

Simply, internet telephone is telephone network using internet as its communications media. Individuality a telephone is an ability to dial the telephone number which is pointed. Therefore, the real correct term is internet telephone, not simply VoIP (Voice over Internet Protocol) that more pointed to voice communications via internet, so that there is not emphasis of ability to dial the telephone number which is pointed.

From some existing internet telephone technologies, this research is focussed at SIP (Session Initiation Protocol) technology. Software open source of used supporting SIP is Asterisk and software client of internet telephone based on SIP (softphone) used by X-Lite.

On the other side, now, telecommunications technology is expanding very quickly in line with the happening of convergency between internet network based on IP (Internet Protocol) and public telecommunication network using E.164 numbering. Now, both of them have been able to be attributed by mapping it into ENUM (Electronic NUmber Mapping or tEeephone NUmber Mapping). ENUM enable the services based on the IP accessed by dialling E.164 number. It can be happened because E.164 number has been mapped into DNS (Domain

Name System). Software open source of used supporting ENUM is BIND (Berkeley Internet Name Domain).

Before ENUM technology is implemented in Indonesia, year 2007 ago, important to execute the trial study implementation of ENUM in Indonesia. It becomes mandatory with the consideration that in this time, it still not yet been made available means and the policy step to conduct the trial in national scale to ENUM technological growth in order to implement ENUM in Indonesia. But generally ENUM implementation in Indonesia and especially in TELKOM generate the new issues as technical, business and regulation aspect. One of technical aspect which require to be considered is its performance. At this research, performance to be analysed is MOS (Mean Opinion Score), echo, PDD (Post Dialing Delay) and jitter.

Keywords: SIP, Asterisk, X-lite, ENUM, BIND, MOS, echo, PDD dan jitter.