ABSTRACT

Sofswitch is defined as a technology for actualizing the NGN (Next Generation Network) which combines PSTN, PLMN, and IP (Internet Protocol) into one integrated architecture—so that they can communicate each other with various services provided. One of those services is VOIP (Voice over Internet Protocol. IP PBX is one of the devices that usessoftswitchwithin its system. *IP PBX*is a pure IP-based digital telephone exchange and able to communicate with the central telephone exchange Analog and IP. IP PBX has quite plenty of communication features, but some of them can only be used with the license from the related vendor.

This final project entitled "Analysis Implementation Interconnection IP PBX Panasonic, IP PBX Siemens, And Trixbox Server For VOIP Service" provides a way to interconnect IP PBX Siemens, IP PBX Panasonic, and Trixbox Server so that the client from each server can communicate each other. IP PBX Siemens, IP PBX Panasonic, and Trixbox Server are three servers that IT Telkom has. So if those servers are well-interconnected, it will ease the IT Telkom society to communicate freely.

From the result measured, varied background traffic, throughput, delay, and jitter over the interconnection are standardized as "Good" based on ITU-T Standard and "Medium" based on Tiphon Standard for packet loss. IP PBX Panasonic and IP PBX Siemens posses the highest MOS, namely in the range of 4 - 4,5. PDD score for each interconnection is slightly different and still under 1 second. This overall system meet the good VoIP quality, so it is feasible to be implemented.

Keywords : NGN, PSTN, Softswitch, IP PBX