

Network development in the telecommunication world shows that computers must have harddisk. It proves that harddisk has important role. It can be seen that every existing single data and program must be kept in a harddisk. In this final project, diskless network which is implicated in VoIP was analyzed. The processing of diskless help the computers' client to activate their operation system by executing file kernel in the clients' side, thus client can access the diskless application including VoIP.

VoIP in the diskless network has its own characteristic, because of its ability in reducing the communication fee and make it competent with other services provider such as PSTN. IP Network which has best effort for its characteristic produced new challenges in sending real time voice, they are; delay is not guaranteed to be always constant, the probability of losing packet, and distortion which is made by the variation of delay packet (jitter). This research has develop system to analyze some parameters that influence Qos, MOS and the total of users at VoIP in this diskless network. A category in a conversation on VoIP is known whether good or bad.

The research method which is used in this final project is experimental. Theories are needed to study in carrying out the final project realization using much kind of references, journals, and make a research about VoIP in diskless network. They were advanced with planning and implementation or realization from the existing theory. After the realization, the next step is to analyzed network with the proper equipment.

From the results of research by the results obtained from studies on the VoIP network trial on diskless network has a delay with an average of 0 ms, jitter < 30 , and packet loss close to 0%. It MOS ranges from 2.7 ms - 4.4 ms with an average of 4.19. When compared with the standard VoIP has a good quality. Diskless analysis of the results obtained average memory when booting client to 1 for 39 MB, for the standby condition for 52 MB and for the condition was open applications gained an average of 114 MB.

Key word: VoIP, Diskless, QoS, MOS.

