

ABSTRACT

The development of computer technology in both software and hardware was very quick. Both aspects are interrelated to one another and cannot be separated. LTSP, Linux Terminal Server Project is a project that was started by James A McQuillan as a pc diskless network project based operating system GNU /Linux. Called pc diskless network, because the client or the workstation is not equipped with a permanent storage medium. This technology is increasingly popular because it can save on hardware resources.

In designing this system used a PC (*Personal Computer*) Pentium D class as the workstation, regardless of storage media and PCs equipped with Pentium-class core 2 duo as a server. LTSP would be integrated with 8.04 ubuntu linux operating system. To be able to implement a network without a hard drive needs to be adjusted well with the number of client server capabilities. In this final project research has tested the server CPU performance and memory usage of the server when the client uses an application such as OpenOffice, Gimp and Firefox.

With LTSP, the development of a pc diskless network is expected to be more efficient. PC diskless network technology is one solution that can be applied in dealing with investment issues in computer technology. With the given specifications, from four client servers designed apparently still capable of handling up to eight client. CPU usage with a third application is still in the balance ranges from 65-70% for user's time, 30-35% for system idle time and from 0 to 0.5% time. Swap arises when the value of "free memory" ranging between 14.000- 30.000 Kbyte.

Keywords: LTSP, Server, diskless, Ubuntu