

ABSTRACT

Current human needs for information technology not only limited to voice, but also includes data and video. Bundle of services that include voice, data, and video is a triple play service. The development of triple play services encourages the emergence of additional services, one of which is the presence system. Presence system is a system that allows users to tell and know the presence status changes. Presence system serves status fetching and provide current user's status and activities information for other users. Presence system can be handled centrally or distributed. Each treatment requires a different performance according to their respective characteristics.

In this final task will be designed a system that handled a presence in centralized SIP-based to overcome performance problems and lack of efficiency in the distributed presence system. Centralized presence system requires a presence server to handle a presence system that is integrated with the triple play services. The network consists of VoIP and IM server using OpenSIPS, a presence server using a client OpenSIPS and clients using X-Lite. The analysis will be the efficiency of a presence message in centralized and distributed systems, and performance of servers in a centralized presence system includes the presence status query delay, number of simultaneous users that can be served by the server, and CPU usage and memory utilization of the presence system.

Query delay obtained from testing at 500 message per second is 0.102431 second for centralized presence system and 0.119361 second for distributed presence system. While number of simultaneous users that can be handled by a centralized presence server ranged from 200 to 300 users per second with an Intel Pentium 4 2.4 GHz, 512 MB RAM and 80 GB hard drive. Presence centralized system requires greater resources on the server side because of the involvement of the database process. Distributed presence systems requires greater resources on the client side.

Keyword: *presence system terpusat, SIP, triple play*