ABSTRACT

Communication and Information is a sufficient service in campus area and society in general. Especially, in campus area, communication becomes really important because it is related to the studies activites. For example, when a student or lecturer needs an administrator faculty help, due to the distance between every buildings which connected all faculties IT Telkom. VoIP aplication with an IVR service is a strategic system in college circle that allows student or lecturer to access any admin faculty or maybe for other instance who wants to use it but still in the coverage of campus area.

As we can see that almost every companies have used Cloud Computing system to economize server usage on physical scale. Because Cloud Computing system is a combined server in virtualization which connected to a network either LAN or WAN. But for user,it can seen as a big computer server.

In this final Project concerned on the implementation of VoIP aplication which can access an IVR call center based on cloud server, where a client can access the service by dial a certain extension number that will be directly connected to PBX server on cloud server and later IVR system answer and help give a guidance to choose what user needs. For cloud performance, the benchmarking parameters are : Flops, Memory Bandwidth, dan Mips.

Variant delay from the benchmarking are in the range 19.997-35.609 ms, jitter 0.655-4.23 ms, throughput 0.086-0.092 Mbps, Packet Loss 2.944-14.948 %. Moreover, for the flops performance is better on real server, for the memory bandwidth is better on cloud server.

Keywords : PBX server, IVR (Interactive Voice Response), VoIP (Voice over IP), Cloud Computing, LAN / WAN, Flops, Memory Bandwidth, Mips.