

ABSTRACT

One of the important parts in virtualization is hypervisor. Hypervisor is a layer between hardware and operating system which is used to manage the resource usage in a computer. With hypervisor, it is possible to create several virtual machines with different operating system and run them all together in a host. Currently, there are many hypervisor available, either open source or proprietary. The proprietary hypervisor is being considered better and more stable. On the other hand, the open source hypervisor is usually cheaper and can be developed further on our own.

This final year project experiment about the performance of Xen (an open source hypervisor) and VMWare ESXi (a proprietary hypervisor). The purpose of this research is to compare between these two hypervisor in term of processor, memory, disc, and throughput. Three virtual servers are installed on the same physical machine, which are FTP server, streaming server, and email server.

From the result of the research, it is concluded that the VMware performance is quite close to non-virtualization server if it uses Windows operating system for FTP and email server. On the other hand, Xen performance is quite close to non-virtualization server if it uses Linux operating system (such as Ubuntu) for FTP and streaming server. On email server without virtualization, there are 2050 users that can be handled. And VMware server can handle requests from 1880 users. These numbers is quite different from the Xen which can only handle 330 users.

Keywords: hypervisor, virtual server, virtualization, VMWare ESXi, Xen hypervisor.