

## ABSTRACT

Storage area network is a system media disk concentrate on network, that enable server of computer or client to use the media disk , as if use local disk. The purpose of SAN is to handle the data traffic on majority between server and feast the disk without decrease the bandwidth in the network. SAN consist of infrastructur communication which give physical communication and manajemen stratum that organize connected,element disk and computer system. So produces data transfer that safety and mainstay. Implementation of SAN can use protokol internet small computer standart interface ( iSCSI ), ATA over ethernet (AoE) on LAN network with unshielded twisted pair ( UTP ) cable media and to use fiber channel.

On this paper, the implementation is a technology SAN use ATA over ethernet protocol. SAN use ATA over ethernet protocol is one of alternative to closing the decrease of SAN implementation with iscsi protocol. ATA over ethernet (AoE) is standart open protocol that enables network access straight to drive disk by client. AoE added a line supplying metode block device storage with exploit the network connectifity. AoE give safety from the first because aoe capsulation the command of access to Sata drive by ethernet. Ata over ethernet work until layer 2, so unable data transfer between initiator and target more faster than iscsi which work until higher layer.

Performance SAN use ata over ethernet protocol that produce in this paper is a solution storage which can give good job from write speed, read speed in harddisk. The testing in this paper is san use ata over ethernet protokol can give write speed is 110321,566 KBps and read speed is 120247,76 KBps. Employing storage area network not influential to throughput server between initiator server and client.

**Keyword : SAN, ATA over ethernet, Iozone, iSCSI.**