



A Study on Merits and Demerits of SAN Protocols

Ashutosh Kumar Singh

Department of Computer Engineering, Bharati Vidyapeeth University, Pune, India

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Abstract— This paper focuses on SAN protocols and their various topologies, protocol layers, addresses. This ; description of rules and regulation of SAN that work in networks of storage. This study paper deals with the stu DAS, how they work in the open industrial network. This paper surveys on protocols and their working in stor SATA, SCSI and SAN have uses FC, FCOE protocols.

Keywords- Fibre Channels,Fibre Channel over Ethernet, Network File System, Internet Small Computer S; Serial AT Attachment

I. INTRODUCTION

In this recent year, IT infrastructure changes rapidly. In the world of changing environment storage of data is necessary and compulsory. So we require protocols to store the data and use efficient data networks. These papers remove misconception and misunderstand of SAN system that SCSI and ATA are same technology. The two class of protocols which have different aims and ambitions. These protocols have different features and characteristics. [1][2]

A. SAN (storage area network)

- It is a network that connects storage devices to multiple servers.
- It provides block level data storage.
- It has its own network storage devices.

B. DAS (Direct attached storage)

- It is a technology that connects to one computer (host machine)
- It is not accessible to other computers.
- Ex –internal hard drive in a laptop

II. LITERATURE REVIEW

A. ATA

It is Advanced Technology Attachment. It is disc drive

2. ATA-2: Support faster PIO modes and DMA
3. ATA-3: Minor revision to ATA-2

B. SATA

It is Serial AT attachment that connects computer system. It supports at the host s advanced host controller interface service. windows drivers who have a logo of S/ simulation mode. Windows, Mac OS X, AHCI mode which allowed access to SA features.

The SATA has shared and parallel disc w installed. The communication between adap take place with high serial cable. Its sp derived from SATA-IO. It has seven signal p It has the maximum cable length of 39.37 cables are easier to manage and have less c cables. SATA connectors have designed for for such features like Hot Docking. SATA/ (cyclic redundancy check) which checks double digit errors.[3][4][5]

When an error is detected, then they retry packet tack place. It is being done by whos up to 8KB. It consists of a bidirectic transmission rate is 1.5GBPS to 3.0GBPS. external command of ATA. The processin performed at the voltage 500mV. It gets power modes for recovering back to nor Drives and ports signal are being used to he notification. It has a full support of N; Queuing (NCQ) to support commands and can expand the number of ports for various attaching and accessing. The same port can for implementing fail operations. It is a to