Exhibit 1228

By stipulation of the parties, the following represents an accurate redline between Exhibits 2303 and 2323 with the exception of the numbering of the pages and any non-substantive formatting differences

STORAGE ROUTER AND METHOD FOR

PROVIDING VIRTUAL LOCAL STORAGE

TECHNICAL FIELD OF THE INVENTION

This invention relates in general to network storage devices, and more particularly to a

storage router and method for providing virtual local storage on remote SCSI storage devices to

Fibre Channel devices.

BACKGROUND OF THE INVENTION

Typical storage transport mediums provide for a relatively small number of devices to be attached over relatively short distances. One such transport medium is a Small Computer System Interface (SCSI) ~~bus~~ protocol, the structure and operation of which is generally well known as is described, for example, in the SCSI-1, SCSI-2, and SCSI-3 specifications. High speed serial interconnects provide enhanced capability to attach a large number of high speed devices to a common storage transport medium over large distances. One such serial interconnect is [[a]] Fibre Channel, the structure and operation of which is described, for example, in *Fibre Channel Physical and Signaling Interface (FC-PH)*, ANSI ~~X3T9.3/Project 755D;~~ X3.230 *Fibre Channel Arbitrated Loop (FC-AL)*, and ANSI ~~X3T11/Project 960D;~~ X3.272 *Fibre Channel Private Loop Direct Attach (FC-PLDA)* ~~Technical Report, Fibre Channel System Initiative; GigaBaud Link Module (GLM) Family, Fibre Channel System Initiative, FCSI-301; Common FC-PH Feature Sets Profiles, Fibre Channel System Initiative, FCSI-101; SCSI Profile, Fibre Channel System Initiative, FCSI-201; and FCSI IP Profile, Fibre Channel System Initiative, FCSI-202.~~

Conventional computing devices, such as computer workstations, generally access storage locally or through network interconnects. Local storage typically consists of a disk drive, tape drive, CD-ROM drive or other storage device contained within, or locally connected to[[,]] the workstation. The workstation provides a file system structure, that includes security controls, with ~~Access~~ access to the local storage device ~~is~~ through native low level, block protocols. These protocols ~~that~~ map directly to the mechanisms used by the storage device and consist of data requests ~~with no specific structure and no~~ without security controls. Network interconnects typically provide access for a large number of computing devices to data storage on a remote network server. The remote network server provides file system structure, access control, and

other miscellaneous capabilities <u>that include the network interface</u>. Access to ~~the~~ data through the network server is through <u>network</u> protocols that ~~map to the file system constructs implemented by the server and involve high level protocols~~ <u>the server must translate into low level requests to the storage device. A workstation with access to the server storage must translate its file system protocols into network protocols that are used to communicate with the server</u>. Consequently, from the perspective of a workstation, or other computing device, seeking to access such <u>server</u> data, the access is much slower than access to data on <u>a</u> local storage <u>device</u>.

SUMMARY OF THE INVENTION

In accordance with the present invention, a storage router and method for providing virtual local storage on remote SCSI storage devices to Fibre Channel devices are disclosed that provide advantages over conventional network storage devices and methods.

According to one aspect of the present invention, a storage router and storage network provide virtual local storage on remote SCSI storage devices to Fibre Channel devices. A plurality of Fibre Channel devices, such as workstations, are connected to a Fibre Channel transport medium, and a plurality of SCSI storage devices are connected to a SCSI bus transport medium. The storage router interfaces between the Fibre Channel transport medium and the SCSI bus transport medium. The storage router maps between the workstations and the SCSI storage devices and implements access controls for storage space on the SCSI storage devices. The storage router then allows access from the workstations to the SCSI storage devices using native low level, block protocol in accordance with the mapping and the access controls.

According to another aspect of the present invention, virtual local storage on remote SCSI storage devices is provided to Fibre Channel devices. A Fibre Channel transport medium and a SCSI bus transport medium are interfaced with. A configuration is maintained for SCSI storage devices connected to the SCSI bus transport medium. The configuration maps between Fibre Channel devices and the SCSI storage devices and implements access controls for storage space on the SCSI storage devices. Access is then allowed from Fibre Channel initiator devices to SCSI storage devices using native low level, block protocol in accordance with the configuration.

A technical advantage of the present invention is the ability to centralize local storage for networked workstations without any cost of speed or overhead. Each workstation access its

DOCKET ALARM

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts

Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research

With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips

Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS
Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS
Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS
Sync your system to PACER to automate legal marketing.