

## **EXHIBIT C**



US006425035C1

(12) **EX PARTE REEXAMINATION CERTIFICATE** (5472nd)  
**United States Patent**  
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(54) **STORAGE ROUTER AND METHOD FOR PROVIDING VIRTUAL LOCAL STORAGE**

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4,864,532 A 9/1989 Reeve et al.  
 4,947,367 A 8/1990 Chang et al.  
 5,072,378 A 12/1991 Manka  
 5,163,131 A 11/1992 Row et al.  
 5,239,632 A 8/1993 Larner  
 5,239,643 A 8/1993 Blount et al.

(Continued)

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**FOREIGN PATENT DOCUMENTS**

EP 0810530 A2 12/1997  
 EP 0827059 A2 3/1998  
 GB 2296798 A 7/1996  
 GB 2297636 A 8/1996  
 GB 2341715 3/2000  
 JP 6301607 10/1994  
 JP 8-230895 9/1996  
 WO WO 98/36357 8/1998  
 WO WO 99/34297 A1 7/1999

**OTHER PUBLICATIONS**

Systems Architectures Using Fibre Channel, Roger Cummings, Twelfth IEEE Symposium on Mass Storage Systems, copyright 1993 IEEE. pp. 251-256.\*

(\*) **Notice:** This patent is subject to a terminal disclaimer.

**Related U.S. Application Data**

(63) Continuation of application No. 09/354,682, filed on Jul. 15, 1999, now Pat. No. 6,421,753, which is a continuation of application No. 09/001,799, filed on Dec. 31, 1997, now Pat. No. 5,941,972.

(51) **Int. Cl.**  
*G06F 13/00* (2006.01)

(52) **U.S. Cl.** ..... 710/315; 710/2; 710/8; 710/36; 710/105; 710/305; 710/308; 711/112

(58) **Field of Classification Search** ..... 710/1-5, 710/8-13, 36-38, 105, 100, 101, 305-316; 711/100, 112, 113; 714/42

See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

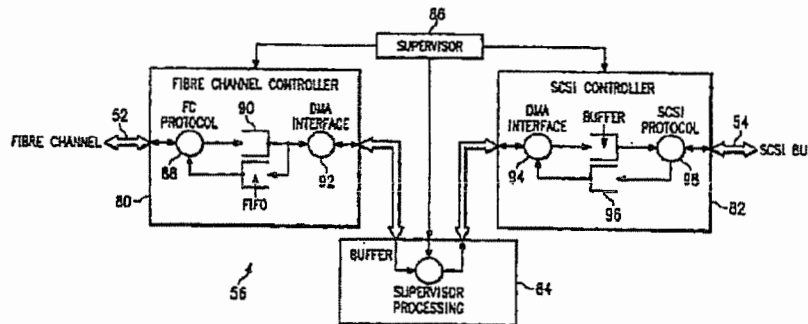
3,082,406 A 3/1963 Stevens  
 4,092,732 A 5/1978 Ouchi  
 4,695,948 A 9/1987 Blevins et al.  
 4,751,635 A 6/1988 Kret

(Continued)

*Primary Examiner*—Dov Popovici

(57) **ABSTRACT**

A storage router (56) and storage network (50) provide virtual local storage on remote SCSI storage devices (60, 62, 64) to Fiber Channel devices. A plurality of Fiber Channel devices, such as workstations (58), are connected to a Fiber Channel transport medium (52), and a plurality of SCSI storage devices (60, 62, 64) are connected to a SCSI bus transport medium (54). The storage router (56) interfaces between the Fibre Channel transport medium (52) and the SCSI bus transport medium (54). The storage router (56) maps between the workstations (58) and the SCSI storage devices (60, 62, 64) and implements access, controls for storage space on the SCSI storage devices (60, 62, 64). The storage router (56) then allows access from the workstations (58) to the SCSI storage devices (60, 62, 64) using native low level, block protocol in accordance with the mapping and the access controls.



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## U.S. PATENT DOCUMENTS

5,257,386 A 10/1993 Saito  
 5,345,565 A \* 9/1994 Jibbe et al. .... 710/316  
 5,347,384 A 9/1994 McReynolds et al.  
 5,394,526 A \* 2/1995 Crouse et al. .... 709/219  
 5,414,820 A 5/1995 McFarland et al.  
 5,423,044 A 6/1995 Sutton et al.  
 5,465,382 A 11/1995 Day, III et al.  
 5,530,845 A 6/1996 Hiatt et al.  
 5,535,352 A 7/1996 Bridges et al.  
 5,581,714 A 12/1996 Amini et al.  
 5,596,562 A 1/1997 Chen  
 5,596,736 A 1/1997 Kerns  
 5,598,541 A 1/1997 Malladi  
 5,634,111 A \* 5/1997 Oeda et al. .... 711/153  
 5,680,556 A 10/1997 Begun et al.  
 5,701,491 A 12/1997 Dunn et al.  
 5,712,976 A 1/1998 Falcon et al.  
 5,729,705 A 3/1998 Weber  
 5,743,847 A 4/1998 Nakamura et al.  
 5,751,975 A 5/1998 Gillespie et al.  
 5,774,683 A 6/1998 Gutick  
 5,845,107 A 12/1998 Fisch et al.  
 5,857,080 A 1/1999 Jander et al.  
 5,864,653 A 1/1999 Tavallaei et al.  
 5,867,648 A 2/1999 Foth et al.  
 5,884,027 A 3/1999 Garbus et al.  
 5,913,045 A 6/1999 Gillespie et al.  
 5,923,557 A 7/1999 Eidson  
 5,941,969 A 8/1999 Ram et al.  
 5,953,511 A 9/1999 Sescilia et al.  
 5,959,994 A 9/1999 Boggs et al.  
 5,974,530 A 10/1999 Young  
 5,978,379 A 11/1999 Chan et al.  
 5,991,797 A 11/1999 Futral et al.  
 6,000,020 A 12/1999 Chin et al.  
 6,021,451 A 2/2000 Bell et al.  
 6,070,253 A 5/2000 Tavallaei et al.  
 6,131,119 A 10/2000 Fukui  
 6,134,617 A 10/2000 Weber  
 6,141,737 A 10/2000 Krantz et al.  
 6,145,006 A 11/2000 Vishlitsky et al.  
 6,223,266 B1 4/2001 Sartore  
 6,230,218 B1 5/2001 Casper et al.  
 6,260,120 B1 7/2001 Blumenau et al.  
 6,330,629 B1 12/2001 Kondo et al.  
 6,363,462 B1 3/2002 Bergsten  
 6,421,753 B1 7/2002 Hoese et al.  
 6,425,035 B1 7/2002 Hoese et al.  
 6,425,036 B1 7/2002 Hoese et al.  
 6,484,245 B1 11/2002 Sanada et al.  
 6,529,996 B1 3/2003 Nguyen et al.

## OTHER PUBLICATIONS

Fibre Channel and ATM: The Physical Layers, Jerry Quam, WESCON/94, published Sep. 27–29, 1994. pp. 648–652.\*  
 Petal: Distributed Virtual Disks, Edward K. Lee and Chandramohan A. Thekkath, ACM SIGPLAN Notices, vol. 31, Issue 9, Sep. 1996, pp. 84–92.\*  
 Black Box, SCSI Fiberoptic Extender, Single-Ended, Product Insert, 2 pages, 1996.  
 Hurskey, Dave “New Serial I/Os Speed Storage Subsystems” Feb. 6, 1996.  
 CRD–5500, Raid Disk Array Controller Product Insert, pp. 1–5.  
 CRD–5500, SCSI Raid Controller OEM Manual, Rev. 1.3, Feb. 26, 1996, pp. 1–54.

Raidtec FibreArray and Raidtec FlexArray UltraRaid Systems, Windows IT PRO Article, Oct. 1997.  
 DIGITAL Storage Works, HSZ70 Array Controller, HSOFF Version 7.0 EK–HSZ70–CG. A01, Digital Equipment Corporation, Maynard, Massachusetts.  
 DIGITAL StorageWorks, Using Your HSZ70 Array Controller in a SCSI Controller Shelf (DS–BA356–M Series), User’s Guide, pp. 1–1 through A–5 with index, Jan. 1998.  
 DIGITAL StorageWorks HSZ270 Array Controller HSOFF Version 7.0 EK–HSZ270–RM. A01. CLI Reference Manual.  
 DIGITAL StorageWorks HSG80 Array Controller ACS Version 8.0 (User’s Guide) Jan. 1998.  
 DIGITAL StorageWorks HSZ70 Array Controller HSOFF Version 7.0 EK–HSZ70–SV. A01.  
 Emerson, “Ankor Communications: Performance evaluation of switched fibre channel I/O system using—FCP for SCSI” Feb. 1995, IBEE, pp. 479–484.  
 IBM Technical Publication: Magstar and IBM 3590 High Performance Tape Subsystem Technical Guide, Nov. 1996, pp. 1–269.  
 Guide to Sharing and Partitioning IBM Tape Library Dataservers, Nov. 1996, IBM, International Technical Support Organization, San Jose Center.  
 Misc. Reference Manual Pages, SunOS 5.09.  
 Block–Based Distributed File Systems, Anthony J. McGregor, Jul. 1997.  
 InfoServer 150VXT Photograph.  
 Pictures of internal components of the InfoServer 150, taken from <http://bindarydinosaurs.couk/Museum/Digital/Infoserver/infoserver.php> in Nov. 2004.  
 Simplest Migration to Fibre Channel Technology.  
 Compaq StorageWorks HSG80 Array Controller ACS Version 8.3 (Maintenance and Service Guide) Nov. 1998.  
 Compaq StorageWorks HSG80 Array Controller ACS Version 8.3 (Configuration and CLI Reference Guide) Nov. 1998.  
 Office Action dated Jan. 21, 2003 for 10/174,720.  
 Office Action dated Feb. 27, 2001 for 09/354,682.  
 Office Action dated Aug. 11, 2000 for 09/354,682.  
 Office Action dated Dec. 16, 1999 for 09/354,682.  
 Office Action dated Nov. 6, 2002, for 10/023,786.  
 Office Action dated Jan. 21, 2003 for 10/081,110.  
 Office Action dated Jan. 27, 2005 in 10/658,163.  
 Office Action in Ex Parte Reexamination 90/007,127, mailed Feb. 7, 2005.  
 Office Action in Ex Parte Reexamination 90/007,126, mailed Feb. 7, 2005.  
 Office Action in Ex Parte Reexamination 90/007,124, mailed Feb. 7, 2005.  
 Office Action in Ex Parte Reexamination 90/007,123, mailed Feb. 7, 2005.  
 European Office Action issued Apr. 1, 2004 in Application No. 98966104.6–2413.  
 Defendant’s First Supplemental Trial Exhibit List, *Crossroads Systems, Inc., v. Chaparral Network Storage, Inc.*, C.A. No. A–00CA–217–SS (W.D. Tex. 2001), (CD–Rom).  
 Defendant’s Third Supplemental Trial Exhibit List, *Crossroads Systems, Inc. v. Pathlight Technology, Inc.*, C.A. No. A–00CA–248–SS (W.D. Tex. 2001) (CD–Rom).  
 Defendant’s Trial Exhibits, *Crossroads Systems, Inc. v. Pathlight Technology, Inc.*, C.A. No. A–00CA–248–SS (W.D. Tex. 2001). (CD–Rom).

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Defendants' Trial Exhibits, *Crossroads Systems, Inc. v. Chaparral Network Storage, Inc.*, C.A. No. A-00CA-217-SS (W.D. Tex. 2001) (CD-Rom).

Defendant Chaparral Network Storage, Inc.'s First Supplemental Trial Exhibit List (D1 through D271) (CD-ROM Chaparral Exhibits ExList\_Def), Sep. 2, 2001.

Defendant Pathlight Technology Inc.'s Third Supplemental Trial Exhibit List (CD-ROM Pathlight Exhibits ExList\_Def).

Plaintiff's Fourth Amended Trail Exhibit List, *Crossroads Systems, Inc. v. Chaparral Network Storage, Inc.*, C.A. No. A-00CA-217-SS (W.D. Tex. 2001) (CD-Rom), Sep. 11, 2001.

Plaintiff's Revised Trial Exhibit List, *Crossroads Systems, Inc. v. Pathlight Technology, Inc.*, C.A. No. A-00CA-248-SS (W.D. Tex. 2001). (CD-Rom).

Plaintiff's Trial Exhibits, *Crossroads Systems, Inc. v. Chaparral Network Storage, Inc.*, C.A. No. A-00CA-217-SS (W.D. Tex. 2001). (CD-Rom).

Plaintiff's Fourth Amended Trail Exhibit List (CD-ROM Chaparral Exhibits ExList\_Plaintiff), Sep. 11, 2001.

Plaintiff's Revised Trail Exhibit List (CD-ROM Pathlight Exhibits ExList\_Plaintiff).

Trail Transcripts, *Crossroads Systems, Inc. v. Chaparral Network Storage, Inc.*, C.A. No. A-00CA-217-SS (W.D. Tex. 2001) (CD-Rom).

Trail Transcripts, *Crossroads Systems, Inc. v. Pathlight Technology, Inc.*, C.A. No. A-00CA-248-SS (W.D. Tex. 2001). (CD-Rom).

Trial Exhibits and Transcripts, *Crossroads v. Chaparral*, Civil Action No. A-00CA-21755, W.D. Tex. 2000 (CD-Rom and hard copy printouts).

Snively, "Sun Microsystem Computer Corporation: Implementing a fibre optic channel SCSI transport" 1994 IEEE, Feb. 28, 1994, pp. 78-82.

Datasheet for CrossPoint 4100 Fibre Channel to SCSI Router (Dedek Ex 41 (ANCT 117-120)) (CD-ROM Chaparral Exhibits D012).

Symbios Logic—Software Interface Specification Series 3 SCSI RAID Controller Software Release 02.xx (Engelbrecht Ex 2 (LSI 1421-1658)) (CD-ROM Chaparral Exhibits D013), Dec. 3, 1997.

Press Release—Symbios Logic to Demonstrate Strong Support for Fibre Channel at Fall Comdex (Engelbrecht 12 (LSI 2785-86)) (CD-ROM Chaparral Exhibits D016), Nov. 13, 1996.

OEM Datasheet on the 3701 Controller (Engelbrecht 13 (LSI 01837-38)) (CD-ROM Chaparral Exhibits D017), Jun. 17, 1905.

Nondisclosure Agreement Between Adaptec and Crossroads Dated Oct. 17, 1996 (Quisenberry Ex 25 (CRDS 8196)) (CD-ROM Chaparral Exhibits D020).

Organizational Presentation on the External Storage Group (Lavan Ex 1 (CNS 182242-255)) (CD-ROM Chaparral Exhibits D021), Apr. 11, 1996.

Bridge. C, Bridge Between SCSI-2 and SCSI-3 FCP (Fibre Channel Protocol) (CD-ROM Chaparral Exhibits P214).

Bridge Phase II Architecture Presentation (Lavan Ex 2 (CNS 182287-295)) (CD-ROM Chaparral Exhibits D022), Apr. 12, 1996.

Attendees/Action Items from Apr. 12, 1996 Meeting at BTC (Lavan Ex 3 (CNS 182241)) (CD-ROM Chaparral Exhibits D023), Apr. 12, 1996.

Brooklyn Hardware Engineering Requirements Documents, Revision 1.4 (Lavan Ex 4 (CNS 178188-211)) (CD-ROM Chaparral Exhibits D024) by Pecone, May 26, 1996.

Brooklyn Single-Ended SCSI RAID Bridge Controller Hardware OEM Manual, Revision 2.1 (Lavan Ex 5 (CNS 177169-191)) (CD-ROM Chaparral Exhibits D025), Mar. 21, 1996.

Coronado Hardware Engineering Requirements Document, Revision 0.0 (Lavan Ex 7 (CNS 176917-932)). (CD-ROM Chaparral Exhibits D027) by O'Dell, Sep. 30, 1996.

ESS/FPG Organization (Lavan Ex 8 (CNS 178639-652)) (CD-ROM Chaparral Exhibits D028), Dec. 6, 1996.

Adaptec MCS ESS Presents: Intelligent External I/O Raid Controllers "Bridge" Strategy (Lavan Ex 9 (CNS 178606-638)). (CD-ROM Chaparral Exhibits D029), Feb. 6, 1996.

AEC-7313 Fibre Channel Daughter Board (for Brooklyn) Engineering Specification, Revision 1.0 (Lavan Ex 10 (CNS 176830-850)) (CD-ROM Chaparral Exhibits D030), Feb. 27, 1997.

Bill of Material (Lavan Ex 14 (CNS 177211-214)) (CD-ROM Chaparral Exhibits D034), Jul. 24, 1997.

AEC-4412B, AEC-7412/B2 External RAID Controller Hardware OEM Manual, Revision 2.0 (Lavan Ex 15 (CNS 177082-123)) (CD-ROM Chaparral Exhibits D035), Jun. 27, 1997.

Coronado II, AEC-7312A Fibre Channel Daughter (for Brooklyn) Hardware Specification, Revision 1.2 (Lavan Ex 16 (CNS 177192-210)) (CD-ROM Chaparral Exhibits D037) by Tom Yang, Jul. 18, 1997.

AEC-4412B, AEC7412/3B External RAID Controller Hardware OEM Manual, Revision 3.0. (Lavan Ex 17 (CNS 177124-165)) (CD-ROM Chaparral Exhibits D036), Aug. 25, 1997.

Memo Dated Aug. 15, 1997 to AEC-7312A Evaluation Unit Customers re: B001 Release Notes (Lavan Ex 18 (CNS 182878-879)) (CD-ROM Chaparral Exhibits D038), Aug. 15, 1997.

Brooklyn Main Board (AES-0302) MES Schedule (Lavan Ex 19 (CNS 177759-763)) (CD-ROM Chaparral Exhibits D039), Feb. 11, 1997.

News Release—Adaptec Adds Fibre Channel Option to its External RAID Controller Family (Lavan Ex 20 (CNS 182932-934)) (CD-ROM Chaparral Exhibits D040), May 6, 1997.

AEC-4412B/7412B User's Guide, Rev. A (Lavan Ex 21) (CD-ROM Chaparral Exhibits D041), Jun. 19, 1905.

Data Book—AIC-7895 PCI Bus Master Single Chip SCSI Host Adapter (Davies Ex 1 (CNS 182944-64)) (CD-ROM Chaparral Exhibits D046), May 21, 1996.

Data Book—AIC-1160 Fibre Channel Host Adapter ASIC (Davies Ex 2 (CNS 181800-825)) (CD-ROM Chaparral Exhibits D047), Jun. 18, 1905.

Viking RAID Software (Davies Ex 3 (CNS 180969-181026)) (CD-ROM Chaparral Exhibits D048), Jun. 18, 1905.

Header File with Structure Definitions (Davies Ex 4 (CNS 180009-018)) (CD-ROM Chaparral Exhibits D049), Aug. 8, 1996.

C++ SourceCode for the SCSI Command Handler (Davies Ex 5 (CNS 179136-168)) (CD-ROM Chaparral Exhibits D050), Aug. 8, 1996.

Header File Data Structure (Davies Ex 6 (CNS 179997-180008)) (CD-ROM Chaparral Exhibits D051), Jan. 2, 1997.

SCSI Command Handler (Davies Ex 7 (CNS 179676-719)) (CD-ROM Chaparral Exhibits D052), Jan. 2, 1997.

## US 6,425,035 C1

Page 4

- Coronado: Fibre Channel to SCSI Intelligent RAID Controller Product Brief (Kalwitz Ex 1 (CNS 182804-805)) (CD-ROM Chaparral Exhibits D053).
- Bill of Material (Kalwitz Ex 2 (CNS 181632-633)) (CD-ROM Chaparral Exhibits D054), Mar. 17, 1997.
- Emails Dated Jan. 13-Mar. 31, 1997 from P. Collins to Mo re: Status Reports (Kalwitz Ex 3 (CNS 182501-511)) (CD-ROM Chaparral Exhibits D055).
- Hardware Schematics for the Fibre Channel Daughtercard Coronado (Kalwitz Ex 4 (CNS 181639-648)) (CD-ROM Chaparral Exhibits D056).
- Adaptec Schematics re AAC-340 (Kalwitz Ex 14 CNS 177215-251)) (CD-ROM Chaparral Exhibits D057).
- Bridge Product Line Review (Manzanares Ex 3 (CNS 177307-336)) (CD-ROM Chaparral Exhibits D058).
- AEC Bridge Series Products-Adaptec External Controller RAID Products Pre-Release Draft, v.6 (Manzanares Ex 4 (CNS 174632-653)). (CD-ROM Chaparral Exhibits D059), Oct. 28, 1997.
- Hewlett-Packard Roseville Site Property Pass for Brian Smith (Dunning Ex 14 (HP 489)) (CD-ROM Chaparral Exhibits D078), Nov. 7, 1996.
- Distribution Agreement Between Hewlett-Packard and Crossroads (Dunning Ex 15 (HP 326-33)) (CD-ROM Chaparral Exhibits D079).
- HPFC-5000 Tachyon User's Manual, First Edition (PTI 17249-839) (CD-ROM Chaparral Exhibits D084), May 1, 1996.
- X3T10 994D-(Draft) Information Technology: SCSI-3 Architecture Model, Rev. 1.8 (PTI 165977) (CD-ROM Chaparral Exhibits D087).
- X3T10 Project 1047D: Information Technology-SCSI-3 Controller Commands (SCC), Rev. 6c (PTI 166400-546) (CD-ROM Chaparral Exhibits D088), Sep. 3, 1996.
- X3T10 995D-(Draft) SCSI-3 Primary Commands, Rev. 11 (Wanamaker Ex 5 (PTI 166050-229)) (CD-ROM Chaparral Exhibits D089), Nov. 13, 1996.
- VBAR Volume Backup and Restore (CRDS 12200-202) (CD-ROM Chaparral Exhibits D099).
- Preliminary Product Literature for Infinity Commstor's Fibre Channel to SCSI Protocol Bridge (Smith Ex 11; Quisenberry Ex 31 (SPLO 428-30)) (CD-ROM Chaparral Exhibits D143), Aug. 19, 1996.
- Letter dated Jul. 12, 1996 from J. Boykin to B. Smith re: Purchase Order for Evaluation Units from Crossroads (Smith Ex 24) CRDS 8556-57) (CD-ROM Chaparral Exhibits D144), Jul. 12, 1996.
- CrossPoint 4100 Fibre Channel to SCSI Router Preliminary Datasheet (Hulsey Ex 9 (CRDS 16129-130)) (CD-ROM Chaparral Exhibits D145), Nov. 1, 1996.
- CrossPoint 4400 Fibre Channel to SCSI Router Preliminary Datasheet (Bardach Ex. 9, Quisenberry Ex 33 (CRDS 25606-607)) (CD-ROM Chaparral Exhibits D153), Nov. 1, 1996.
- Fax Dated Jul. 22, 1996 from L. Petti to B. Smith re: Purchase Order from Data General for FC2S Fibre to Channel SCSI Protocol Bridge Model 11 (Smith Ex 25; Quisenberry Ex 23; Bardach Ex 11 (CRDS 8552-55; 8558)) (CD-ROM Chaparral Exhibits D155).
- Email Dated Dec. 20, 1996 from J. Boykin to B. Smith re: Purchase Order for Betas in Feb. and Mar. (Hoese Ex 16, Quisenberry Ex 25; Bardach Ex 12 (CRDS 13644-650)) (CD-ROM Chaparral Exhibits D156).
- Infinity Commstor Fibre Channel Demo for Fall Comdex, 1996 (Hoese Ex 15, Bardach Ex 13 (CRDS 27415)) (CD-ROM Chaparral Exhibits D157).
- Fax Dated Dec. 19, 1996 from B. Bardach to T. Rarich re: Purchase Order Information (Bardach Ex. 14; Smith Ex 16 (CRDS 4460)) (CD-ROM Chaparral Exhibits D158).
- Miscellaneous Documents Regarding Comdex (Quisenberry Ex 2 (CRDS 27415-465)) (CD-ROM Chaparral Exhibits D165).
- CrossPoint 4100 Fibre Channel to SCSI Router Preliminary Datasheet (Quisenberry) Ex 3 (CRDS 4933-34) (CD-ROM Chaparral Exhibits D166) (CD-ROM Chaparral Exhibits D166).
- CrossPoint 4400 Fibre to Channel to SCSI Router Preliminary Datasheet; Crossroads Company and Product Overview (Quisenberry Ex 4 (CRDS 25606; 16136)) (CD-ROM Chaparral Exhibits D167).
- Crossroads Purchase Order Log (Quisenberry Ex 9 (CRDS 14061-062)) (CD-ROM Chaparral Exhibits D172).
- RAID Manager 5 with RDAC 5 for UNIX V.4 User's Guide (LSI-01854) (CD-ROM Chaparral Exhibits P062), Sep. 1, 1996.
- Letter dated May 12, 1997 from Alan G. Leal to Barbara Bardach enclosing the original OEM License and Purchase Agreement between Hewlett-Packard Company and Crossroads Systems, Inc. (CRDS 02057) (CD-ROM Chaparral Exhibits P130).
- CR4x00 Product Specification (CRDS 43929) (CD-ROM Chaparral Exhibits P267), Jun. 1, 1998.
- Symbios Logic-Hardware Functional Specification for the Symbios Logic Series 3 Fibre Channel Disk Array Controller Model 3701 (Engelbrecht Ex 3 (LSI-1659-1733)) (CD-ROM Pathlight Exhibits D074).
- Report of the Working Group on Storage I/O for Large Scale Computing; Department of Computer Science Duke University: CS-1996-21 (PTI 173330-347). (CD-ROM Pathlight Exhibits D098).
- Brian Allison's 1999 Third Quarter Sales Plan (PDX 38) (CNS 022120-132)) (CD-ROM Pathlight Exhibits D201), Jun. 5, 2001.
- Brooklyn SCSI-SCSI Intelligent External RAID Bridge Definition Phase External Documentation (CD-ROM Pathlight Exhibits D129).
- "InfoServer 100 System Operations Guide", First Edition, Digital Equipment Corporation, 1990.
- S.P. Joshi, "Ethernet controller chip interfaces with variety of 16-bit processors," Electronic Design, Hayden Publishing Co., Inc., Rochelle Park, NJ, Oct. 14, 1982, pp 193-200.
- "DP5380 Asynchronous SCSI Interface", National Semiconductor Corporation, Arlington, TX, May 1989, pp. 1-32.
- Johnson, D.B., et al., "The Peregrine High Performance RPC System", Software-Practice & Experience, 23(2):201-221, Feb. 1993.
- "InfoServer 150-Installation and Owner's Guide", EK-IN-FSV-OM-001, Digital Equipment Corporation, Maynard, Massachusetts 1991, Chapters 1 and 2.
- Pictures of internal components of the InfoServer 150, taken from <http://www.binarydinosaurs.co.uk/Museum/Digital/infoserver/infoserver.php> in Nov. 2004.

\* cited by examiner

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**1**  
**EX PARTE**  
**REEXAMINATION CERTIFICATE**  
**ISSUED UNDER 35 U.S.C. 307**

NO AMENDMENTS HAVE BEEN MADE TO  
THE PATENT

**2**  
AS A RESULT OF REEXAMINATION, IT HAS BEEN  
DETERMINED THAT:

5 The patentability of claims 1-14 is confirmed.

\* \* \* \* \*