502813969 05/19/2014

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT2860563

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
LSI CORPORATION	05/06/2011

RECEIVING PARTY DATA

Name:	NetApp, Inc.	
Street Address:	95 East Java Drive	
City:	Sunnyvale	
State/Country:	CALIFORNIA	
Postal Code:	94089	

PROPERTY NUMBERS Total: 1

Property Type	Number		
Application Number:	14218308		

CORRESPONDENCE DATA

Fax Number: (214)200-0853

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 214-651-5000

Email: ipdocketing@haynesboone.com
Correspondent Name: HAYNES AND BOONE, LLP.
Address Line 1: 2323 VICTORY AVENUE

Address Line 2: SUITE 700

Address Line 4: DALLAS, TEXAS 75219

ATTORNEY DOCKET NUMBER:	47415.482
NAME OF SUBMITTER:	THOMAS W. KELTON
SIGNATURE:	/Thomas W. Kelton/
DATE SIGNED:	05/19/2014

Total Attachments: 33

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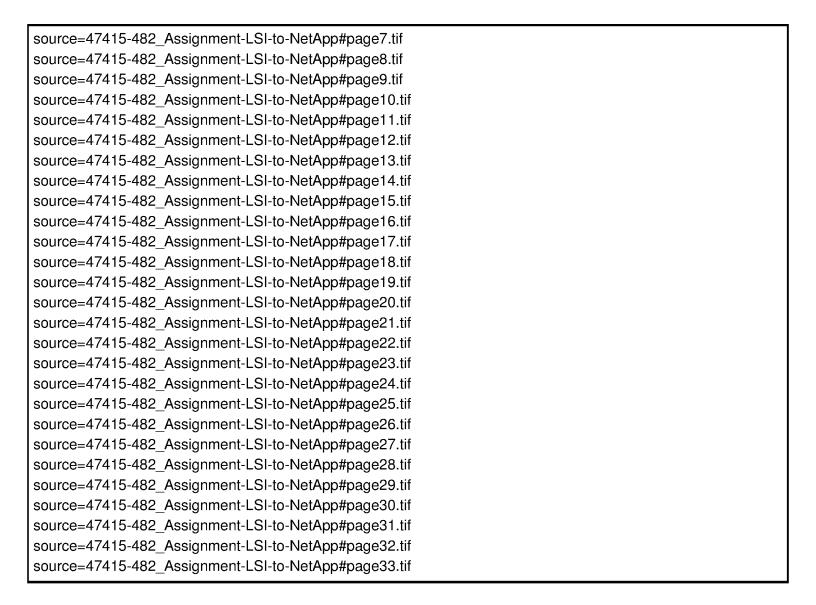
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502813969 REEL: 032921 FRAME: 0675



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TO: DAVID L. MCCOMBS COMPANY: HAYNES AND BOONE, LLP



UNITED STATES PATENT AND TRADEMARK OFFICE

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

JULY 27, 2011

PTAS

DAVID L. MCCOMBS HAYNES AND BOONE, LLP 2323 VICTORY AVENUE, SUITE 700 DALLAS, TX 75219



UNITED STATES PATENT AND TRADEMARK OFFICE NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 571-272-3350. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, MAIL STOP: ASSIGNMENT SERVICES BRANCH, P.O. BOX 1450, ALEXANDRIA, VA 22313.

RECORDATION DATE: 07/27/2011

REEL/FRAME: 026656/0659 NUMBER OF PAGES: 19

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS). DOCKET NUMBER: 47415.2

ASSIGNOR:

LSI CORPORATION

DOC DATE: 05/06/2011

ASSIGNEE: NETAPP, INC.

495 EAST JAVA DRIVE

SUNNYVALE, CALIFORNIA 94089

P.O. Box 1450, Alexandria, Virginia 22313-1450 - vww.uspto.gov

PATENT ASSIGNMENT

THIS PATENT ASSIGNMENT is made as of May 6, 2011 by LSI CORPORATION, a Delaware corporation, hereinafter referred to as the ASSIGNOR, and NETAPP, INC., a Delaware corporation, hereinafter referred to as the ASSIGNEE.

ASSIGNOR is the owner of certain patents and patent applications identified on Schedule "A" attached hereto (the "ASSIGNED PATENTS").

ASSIGNEE desires to acquire the entire right, title and interest of ASSIGNOR in and to said ASSIGNED PATENTS.

For good and valuable consideration paid by the ASSIGNEE, the receipt of which is hereby acknowledged, ASSIGNOR does hereby sell, assign and transfer to the ASSIGNEE, at ASSIGNEE's sole expense, ASSIGNOR's entire right, title and interest in and to the ASSIGNED PATENTS, in the U.S. and every foreign country, and all patent rights, including extensions or derivations thereof, both foreign and domestic, that exist and may issue on the ASSIGNED PATENTS. ASSIGNEE hereby authorizes and requests the Commissioner of Patents that all U.S. patents that issue on the ASSIGNED PATENTS shall issue to ASSIGNEE. This assignment includes assignment to ASSIGNEE of the right to make application in its own behalf for protection of the ASSIGNED PATENTS and any patents issued on the ASSIGNED PATENTS, in the U.S. and countries foreign to the U.S., and to claim under the Patent Cooperation Treaty, the International Convention and/or other international arrangement for any such application the date of any earlier U.S. application (or any other application on the invention) to gain priority with respect to other applications. The ASSIGNED PATENTS and all patents that issue on the ASSIGNED PATENTS shall be held and enjoyed by the ASSIGNEE, its successors and assigns as fully and entirely as the same would have been held and enjoyed by the ASSIGNOR had this assignment not been made.

ASSIGNOR covenants and agrees to execute such further and confirmatory assignments in recordable form as the ASSIGNEE may require to vest record title of said respective ASSIGNED PATENTS in ASSIGNEE.

IN WITNESS WHEREOF, the ASSIGNOR has caused this Assignment to be executed by a duly authorized officer.

LSI CORPORATION

By: Mare H. Machichal Name: Marie H. MacNichol

Title: Vice President - IP Law

USPTO 7/27/2011 2:05:57 PM PAGE 19/019

TO:DAVID L. MCCOMBS COMPANY:HAYNES AND BOONE, LLP

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Haynes and Boone, LLP Address Line 1: 2323 Victory Avenue, Suite 700 Address Line 2: Address Line 4: Dallas, TEXAS 75219 47415.2 ATTORNEY DOCKET NUMBER: NAME OF SUBMITTER: David L. McCombs Total Atlachments: 14 source=47415_LSiCorporation_NetApp_Assignment#page1.tif source=47415_LSICorporation_NetApp_Assignment#page2.tif source=47415_LSICorporation_NetApp_Assignment#page3.tif source=47415_LSICorporation_NetApp_Assignment#page4.tif source=47415_LSICorporation_NetApp_Assignment#page5.tif source=47415_LSiCorporation_NetApp_Assignment#page6.tif source=47415_LSiCorporation_NetApp_Assignment#page7.tif source=47415_LSiCorporation_NetApp_Assignment#page8.tif source=47415_LSICorporation_NetApp_Assignment#page9.tif source=47415_LSICorporation_NetApp_Assignment#page10.tif source=47415_LSICorporation_NetApp_Assignment#page11.tif source=47415_LSlCorporation_NetApp_Assignment#page12.tif source=47416_LSICorporation_NetApp_Assignment#page13.tif

> PATENT REEL: 032921 FRAME: 0679

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Application Number:	12286591
Application Number:	12260324
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Application Number:	12407795
Application Number:	12600877
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PCT Number:	US0875045
PCT Number:	US0721613
PCT Number:	US0720570
PCT Number:	US0930302
PCT Number:	US0809944
PCT Number:	US0943561
PCT Number:	US0943468
PCT Number:	US0902008

CORRESPONDENCE DATA

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(214)200-0853

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

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2146515000

Email:

eppsl@haynesboone.com

Correspondent Name: David L. McCombs

7913027	1
Application Number: 12211838 Application Number: 12354128 Application Number: 12100520 Application Number: 12324224 Application Number: 1243123 Application Number: 12492147 Application Number: 11545672 Application Number: 12429519 Application Number: 12221515 Application Number: 12221515 Application Number: 12573238 Application Number: 12573238 Application Number: 12569915 Application Number: 12606056 Application Number: 12405128 Application Number: 12406029 Application Number: 12406029 Application Number: 12404257 Application Number: 11883688 Application Number: 10714031 Application Number: 10973478 Application Number: 11993478 Application Number: 11993478 Application Number: 11993478 Application Number: 11993478 Application Number: 11260322 Application Number: 112607804	
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Patent Number:	7769849
Patent Number:	7409618
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Patent Number:	7836351
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Patent Number:	7568069
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Patent Number:	7412631
Patent Number:	7390975
Patent Number:	7633298
Patent Number:	7599392
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Patent Number:	7847801
Patent Number:	7667984
Patent Number:	7515411
Patent Number:	6898670
Patent Number:	7437753
Patent Number:	7864539
Patent Number:	7713066
Patent Number:	7523236
Palent Number:	7539797
Palent Number:	7523235
Palent Number:	7715182
Patent Number:	7552581

PATENT ASSIGNMENT 07/27/2011 501607675 Electronic Version v1.1 Stylesheet Version v1.1 SUBMISSION TYPE: **NEW ASSIGNMENT** NATURE OF CONVEYANCE: **ASSIGNMENT CONVEYING PARTY DATA** Name **Execution Date** LSI Corporation 05/06/2011 **RECEIVING PARTY DATA** Name: NETAPP, INC. Street Address: 495 East Java Drive City: Sunnyvale CALIFORNIA State/Country: Postal Code: 94089 **PROPERTY NUMBERS Total: 114** Property Type Number Patent Number: 7796396 Patent Number: 6969928 Palent Number: 7493404 Patent Number: 7616631 Patent Number: 7478758 Patent Number: 7766220 Patent Number: 7818461 Patent Number: 7568216 Patent Number: 7461140 Patent Number: 7573870 Palent Number: 7395460 Patent Number: 7783792 Patent Number: 7492608 Patent Number: 7376546 Patent Number: 7584272

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TO: DAVID L. MCCOMBS COMPANY: HAYNES AND BOONE, LLP

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APPLICATION NUMBER: 12600877

PATENT NUMBER:

FILING DATE: 11/19/2009

ISSUE DATE:

ISSUE DATE:

PCT NUMBER: US0875045

TITLE: CUSTOMER REPLACEABLE UNIT DRIVE ISOLATOR

APPLICATION NUMBER:

FILING DATE: 10/10/2007

PATENT NUMBER:

PCT NUMBER: US0721613

TITLE: SYSTEM AND METHOD FOR CONNECTING SAS RAID CONTROLLER DEVICE CHANNELS ACROSS REDUNDANT STORAGE SUBSYSTEMS

APPLICATION NUMBER:

PATENT NUMBER:

FILING DATE: 09/24/2007

ISSUE DATE:

PCT NUMBER: US0720570

TITLE: METHOD FOR REPORTING REDUNDANT CONTROLLERS AS INDEPENDENT STORAGE ENTITIES

APPLICATION NUMBER:

FILING DATE: 01/07/2009

PATENT NUMBER: ISSUE DATE:

PCT NUMBER: US0930302

TITLE: DRIVE BOX

FILING DATE: 08/21/2008

APPLICATION NUMBER: PATENT NUMBER: ISSUE DATE:

PCT NUMBER: US0809944

TITLE: SYSTEM TO CONNECT A SERIAL SCSI ARRAY CONTROLLER TO A STORAGE AREA NETWORK

APPLICATION NUMBER:

FILING DATE: 05/12/2009

ISSUE DATE:

ISSUE DATE:

PATENT NUMBER: PCT NUMBER: US0943561

TITLE: ACTIVE-ACTIVE SUPPORT OF VIRTUAL STORAGE MANAGEMENT IN A STORAGE AREA NETWORK ("SAN")

APPLICATION NUMBER:

FILING DATE: 05/11/2009

PATENT NUMBER: ISSUE DATE:

PCT NUMBER: US0943468

TITLE: METHODS AND SYSTEMS FOR RECOVERING A COMPUTER SYSTEM USING A STORAGE AREA NETWORK

APPLICATION NUMBER:

FILING DATE: 03/30/2009

PATENT NUMBER:

PCT NUMBER: US0902008

TITLE: STORAGE SYSTEM SNAPSHOT ASSISTED BY SSD TECHNOLOGY

MARY BENTON, EXAMINER ASSIGNMENT SERVICES BRANCH PUBLIC RECORDS DIVISION

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TO: DAVID L. MCCOMBS COMPANY: HAYNES AND BOONE, LLP

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APPLICATION NUMBER: 12082481

FILING DATE: 04/11/2008

ISSUE DATE: 01/04/2011

TITLE: HORIZONTAL DRIVE DRAWER SYSTEM AND METHOD

APPLICATION NUMBER: 12072145

FILING DATE: 02/25/2008

PATENT NUMBER: 7713066

PATENT NUMBER: 7864539

ISSUE DATE: 05/11/2010

TITLE: CARD EDGE CONNECTOR DEVICE AND METHOD

APPLICATION NUMBER: 10775521

FILING DATE: 02/09/2004

PATENT NUMBER: 7523236

ISSUE DATE: 04/21/2009

TITLE: SWITCHING SERIAL ADVANCED TECHNOLOGY ATTACHMENT (SATA) TO A

PARALLEL INTERFACE

APPLICATION NUMBER: 10775523

FILING DATE: 02/09/2004

PATENT NUMBER: 7539797

ISSUE DATE: 05/26/2009

TITLE: ROUTE AWARE SERIAL ADVANCED TECHNOLOGY ATTACHMENT (SATA)

SWITCH

APPLICATION NUMBER: 10775488

FILING DATE: 02/09/2004

PATENT NUMBER: 7523235

ISSUE DATE: 04/21/2009

TITLE: SERIAL ADVANCED TECHNOLOGY ATTACHMENT (SATA) SWITCH

APPLICATION NUMBER: 12167472 PATENT NUMBER: 7715182

FILING DATE: 07/03/2008

ISSUE DATE: 05/11/2010

TITLE: DRIVE BOX

FILING DATE: 09/10/2008

APPLICATION NUMBER: 12208182 PATENT NUMBER: 7552581

ISSUE DATE: 06/30/2009

TITLE: ARTICULATING CABLE CHAIN ASSEMBLY

APPLICATION NUMBER: 12419840

FILING DATE: 04/07/2009

PATENT NUMBER: 7913027

ISSUE DATE: 03/22/2011

TITLE: CONFIGURABLE STORAGE ARRAY CONTROLLER

APPLICATION NUMBER: 09350742

FILING DATE: 07/09/1999

PATENT NUMBER: 7640325

ISSUE DATE: 12/29/2009

TITLE: METHODS AND APPARATUS FOR ISSUING UPDATES TO MULTIPLE

MANAGEMENT ENTITIES

APPLICATION NUMBER:

FILING DATE: 04/30/2009

PATENT NUMBER:

ISSUE DATE:

PCT NUMBER: US0942311

TITLE: VIRTUALIZED DATA STORAGE IN A VIRTUALIZED SERVER ENVIRONMENT

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APPLICATION NUMBER: 11224850 FILING DATE: 09/13/2005
PATENT NUMBER: 7412631 ISSUE DATE: 08/12/2008
TITLE: METHODS AND STRUCTURE FOR VERIFYING DOMAIN FUNCTIONALITY

APPLICATION NUMBER: 11493260 FILING DATE: 07/25/2006
PATENT NUMBER: 7390975 ISSUE DATE: 06/24/2008
TITLE: SELF-ALIGNING ELECTROMAGNETIC INTERFERENCE GASKETS FOR CUSTOMER REMOVABLE MODULES

APPLICATION NUMBER: 11220936 FILING DATE: 09/07/2005
PATENT NUMBER: 7533298 ISSUE DATE: 05/12/2009
TITLE: WRITE JOURNALING USING BATTERY BACKED CACHE

APPLICATION NUMBER: 11286633 FILING DATE: 11/23/2005
PATENT NUMBER: 7599392 ISSUE DATE: 10/06/2009
TITLE: DEVICES AND METHODS FOR MATCHING LINK SPEEDS BETWEEN
CONTROLLERS AND CONTROLLED DEVICES

APPLICATION NUMBER: 11272920 FILING DATE: 11/14/2005 PATENT NUMBER: 7623472 ISSUE DATE: 11/24/2009 TITLE: DYNAMIC PEER APPLICATION DISCOVERY

APPLICATION NUMBER: 11540468 FILING DATE: 09/29/2006
PATENT NUMBER: 7847801 ISSUE DATE: 12/07/2010
TITLE: METHOD FOR REPORTING REDUNDANT CONTROLLERS AS INDEPENDENT
STORAGE ENTITIES

APPLICATION NUMBER: 11634064 FILING DATE: 12/05/2006
PATENT NUMBER: 7667984 ISSUE DATE: 02/23/2010
TITLE: ADJUSTABLE EMI BAFFLING APPARATUS FOR DATA STORAGE SYSTEMS

APPLICATION NUMBER: 11673466 FILING DATE: 02/09/2007
PATENT NUMBER: 7515411 ISSUE DATE: 04/07/2009
TITLE: MULTI-FAN AIRFLOW REGULATION FOR FAN FAIL CONDITIONS

APPLICATION NUMBER: 10257426 FILING DATE: 10/10/2002 PATENT NUMBER: 6898670 ISSUE DATE: 05/24/2005 TITLE: STORAGE VIRTUALIZATION IN A STORAGE AREA NETWORK

APPLICATION NUMBER: 10469727 FILING DATE: 08/28/2003
PATENT NUMBER: 7437753 ISSUE DATE: 10/14/2008
TITLE: STORAGE AREA NETWORK (SAN) SECURITY

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TO:DAVID L. MCCOMBS COMPANY: HAYNES AND BOONE, LLP

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APPLICATION NUMBER: 10986751 FILING DATE: 11/12/2004
PATENT NUMBER: 7428665 ISSUE DATE: 09/23/2008
TITLE: METHODS AND STRUCTURE FOR DETECTION AND HANDLING OF

CATASTROPHIC SCSI ERRORS

APPLICATION NUMBER: 11924813 FILING DATE: 10/26/2007
PATENT NUMBER: 7853831 ISSUE DATE: 12/14/2010
TITLE: METHODS AND STRUCTURE FOR DETECTION AND HANDLING OF
CATASTROPHIC SCSI ERRORS

APPLICATION NUMBER: 11064684 FILING DATE: 02/24/2005
PATENT NUMBER: 7552355 ISSUE DATE: 06/23/2009
TITLE: SYSTEM FOR PROVIDING AN ALTERNATIVE COMMUNICATION PATH IN A
SAS CLUSTER

APPLICATION NUMBER: 12387043 FILING DATE: 04/27/2009
PATENT NUMBER: 7836351 ISSUE DATE: 11/16/2010
TITLE: SYSTEM FOR PROVIDING AN ALTERNATIVE COMMUNICATION PATH IN A SAS CLUSTER

APPLICATION NUMBER: 11148395 FILING DATE: 06/07/2005
PATENT NUMBER: 7761630 ISSUE DATE: 07/20/2010
TITLE: APPLICATION PROGRAMMING INTERFACE FOR FUSION MESSAGE PASSING TECHNOLOGY

APPLICATION NUMBER: 11248544 FILING DATE: 10/12/2005
PATENT NUMBER: 7444267 ISSUE DATE: 10/28/2008
TITLE: SYSTEM AND METHOD TO SYNCHRONIZE AND COORDINATE PARALLEL,
AUTOMATED FAULT INJECTION PROCESSES AGAINST STORAGE AREA
NETWORK ARRAYS

APPLICATION NUMBER: 11283232 FILING DATE: 11/18/2005
PATENT NUMBER: 7765365 ISSUE DATE: 07/27/2010
TITLE: METHOD OF PARTIONING STORAGE IN SYSTEMS WITH BOTH SINGLE AND VIRTUAL TARGET INTERFACES

APPLICATION NUMBER: 11192636 FILING DATE: 07/29/2005
PATENT NUMBER: 7568069 ISSUE DATE: 07/28/2009
TITLE: METHOD FOR CREATING A LARGE-SCALE STORAGE ARRAY SYSTEM OUT
OF MULTIPLE MID-RANGE STORAGE ARRAYS

APPLICATION NUMBER: 11328700 FILING DATE: 01/10/2006
PATENT NUMBER: 7650642 ISSUE DATE: 01/19/2010
TITLE: PEER-TO-PEER LICENSE TRACKING AND CONTROL

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APPLICATION NUMBER: 10968495 FILING DATE: 10/19/2004
PATENT NUMBER: 7584272 ISSUE DATE: 09/01/2009
TITLE: METHOD AND APPARATUS FOR FULLY AUTOMATED ISCSI TARGET
CONFIGURATION

APPLICATION NUMBER: 10972809 FILING DATE: 10/25/2004
PATENT NUMBER: 7769849 ISSUE DATE: 08/03/2010
TITLE: METHOD FOR DETECTING CHANGES IN A STORAGE AREA NETWORK
WITHOUT EXTERNAL TOOLS AND HARDWARE

APPLICATION NUMBER: 10959619 FILING DATE: 10/06/2004
PATENT NUMBER: 7409618 ISSUE DATE: 08/05/2008
TITLE: SELF VERIFYING COMMUNICATIONS TESTING

APPLICATION NUMBER: 11136741 FILING DATE: 05/24/2005
PATENT NUMBER: 7840755 ISSUE DATE: 11/23/2010
TITLE: METHODS AND SYSTEMS FOR AUTOMATICALLY IDENTIFYING A
MODIFICATION TO A STORAGE ARRAY

APPLICATION NUMBER: 10966861 FILING DATE: 10/15/2004
PATENT NUMBER: 7441320 ISSUE DATE: 10/28/2008
TITLE: METHOD OF VALIDATING MANUFACTURING CONFIGURATIONS DURING HARDWARE ASSEMBLY

APPLICATION NUMBER: 11052434 FILING DATE: 02/07/2005
PATENT NUMBER: 7673179 ISSUE DATE: 03/02/2010
TITLE: ONLINE TESTING UNIFICATION SYSTEM WITH REMOTE TEST
AUTOMATION TECHNOLOGY

APPLICATION NUMBER: 11070361 FILING DATE: 03/02/2005
PATENT NUMBER: 7689586 ISSUE DATE: 03/30/2010
TITLE: REMOTE STATUS AND CONTROL OF STORAGE DEVICES

APPLICATION NUMBER: 11057548 FILING DATE: 02/14/2005
PATENT NUMBER: 7620320 ISSUE DATE: 11/17/2009
TITLE: FIBRE SELECTIVE CONTROL SWITCH SYSTEM

APPLICATION NUMBER: 11167379 FILING DATE: 06/27/2005
PATENT NUMBER: 7760727 ISSUE DATE: 07/20/2010
TITLE: SYSTEM & METHOD FOR FABRIC STORAGE UTILIZING MULTICAST WITH DISTRIBUTED INTELLIGENCE

APPLICATION NUMBER: 11253368 FILING DATE: 10/19/2005
PATENT NUMBER: 7529902 ISSUE DATE: 05/05/2009
TITLE: METHODS AND SYSTEMS FOR LOCKING IN STORAGE CONTROLLERS

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APPLICATION NUMBER: 12317226 FILING DATE: 12/19/2008 PATENT NUMBER: 7766220 ISSUE DATE: 08/03/2010

TITLE: METHOD AND APPARATUS FOR AUTOMATICALLY TRACKING AND

COMMUNICATING DATA STORAGE DEVICE INFORMATION USING RF TAGS:

OPERATING CONDITION, CONFIGURATION AND LOCATION

APPLICATION NUMBER: 10424408 FILING DATE: 04/28/2003 PATENT NUMBER: 7818461 ISSUE DATE: 10/19/2010

TITLE: SYSTEMS AND METHODS FOR ALLOCATING AN ASSET TO

INTERCONNECTED DEVICES

APPLICATION NUMBER: 10741559 FILING DATE: 12/19/2003 PATENT NUMBER: 7568216 ISSUE DATE: 07/28/2009

TITLE: METHODS FOR DEFINING AND NAMING ISCSI TARGETS USING VOLUME

ACCESS AND SECURITY POLICY

APPLICATION NUMBER: 10741563 FILING DATE: 12/19/2003 PATENT NUMBER: 7461140 ISSUE DATE: 12/02/2008

TITLE: METHOD AND APPARATUS FOR IDENTIFYING IPSEC SECURITY POLICY

IN ISCSI

APPLICATION NUMBER: 10671353 FILING DATE: 09/25/2003 PATENT NUMBER: 7573870 ISSUE DATE: 08/11/2009

TITLE: TRANSMIT PRIORITIZER CONTEXT PRIORITIZATION SCHEME

APPLICATION NUMBER: 10817344 FILING DATE: 04/02/2004 PATENT NUMBER: 7395460 ISSUE DATE: 07/01/2008 TITLE: FAILED DRIVE LOCATOR FOR REMOVABLE DISK ARRAY MODULES

APPLICATION NUMBER: 10783785 FILING DATE: 02/20/2004 PATENT NUMBER: 7783792 ISSUE DATE: 08/24/2010

TITLE: ENCLOSURE SLOT IDENTIFICATION BY MODULES

APPLICATION NUMBER: 11130618 FILING DATE: 05/17/2005 PATENT NUMBER: 7492608 ISSUE DATE: 02/17/2009 TITLE: ELECTROMAGNETIC INTERFERENCE SHIELD FOR DATA STORAGE SYSTEMS

APPLICATION NUMBER: 10984287 FILING DATE: 11/08/2004 ISSUE DATE: 05/20/2008 PATENT NUMBER: 7376546 TITLE: USER CONFIGURABLE ULTRA320 SCSI TARGET DEVICE SIMULATOR AND

ERROR INJECTOR

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APPLICATION NUMBER: 12417510 FILING DATE: 04/02/2009 PATENT NUMBER: 7984605 ISSUE DATE: 07/26/2011

TITLE: CABLE CHAIN RETURN SYSTEM AND ASSOCIATED METHODS

APPLICATION NUMBER: 12481389 FILING DATE: 06/09/2009

PATENT NUMBER: ISSUE DATE:

TITLE: EMBEDDED PRIVATE SCALE OUT NETWORK

APPLICATION NUMBER: 12481303 FILING DATE: 06/09/2009

PATENT NUMBER: ISSUE DATE:

TITLE: STORAGE ARRAY ASSIST ARCHITECTURE

APPLICATION NUMBER: 12407795 FILING DATE: 03/20/2009

PATENT NUMBER: ISSUE DATE:

TITLE: METHOD AND SYSTEM FOR GOVERNING AN ENTERPRISE LEVEL GREEN

STORAGE SYSTEM DRIVE TECHNIQUE

APPLICATION NUMBER: 12600877 FILING DATE: 11/19/2009

PATENT NUMBER: ISSUE DATE:

TITLE: CUSTOMER REPLACEABLE UNIT DRIVE ISOLATOR

APPLICATION NUMBER: 10143649 FILING DATE: 05/10/2002 PATENT NUMBER: 7796396 ISSUE DATE: 09/14/2010

TITLE: INTEGRATED CRU LATCH

APPLICATION NUMBER: 10161478 FILING DATE: 05/31/2002 PATENT NUMBER: 6969928 ISSUE DATE: 11/29/2005

TITLE: MAGNETIC PROXIMITY INTERFACE CONTROL

APPLICATION NUMBER: 10198684 FILING DATE: 07/18/2002 PATENT NUMBER: 7493404 ISSUE DATE: 02/17/2009

TITLE: APPARATUS AND METHOD FOR PROVIDING TRANSPARENT SHARING OF CHANNEL RESOURCES BY MULTIPLE HOST MACHINES UTILIZING MIXED

MODE BLOCK AND FILE PROTOCOLS

APPLICATION NUMBER: 10218726 FILING DATE: 08/14/2002 PATENT NUMBER: 7616631 ISSUE DATE: 11/10/2009

TITLE: METHOD AND APPARATUS FOR DEBUGGING PROTOCOL TRAFFIC BETWEEN DEVICES IN INTEGRATED SUBSYSTEMS

APPLICATION NUMBER: 10620778 FILING DATE: 07/15/2003 PATENT NUMBER: 7478758 ISSUE DATE: 01/20/2009

TITLE: METHOD AND APPARATUS FOR AUTOMATICALLY TRACKING AND COMMUNICATING DATA STORAGE DEVICE INFORMATION USING RF TAGS:

OPERATING CONDITION, CONFIGURATION AND LOCATION

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APPLICATION NUMBER: 12316713

FILING DATE: 12/15/2008

PATENT NUMBER:

ISSUE DATE:

TITLE: SMALL COMPUTER SYSTEM INTERFACE INPUT OUTPUT (SCSI 10)

REFERRAL

APPLICATION NUMBER: 12506143

FILING DATE: 07/20/2009

PATENT NUMBER:

ISSUE DATE:

TITLE: VIRTUALIZED DATA STORAGE IN A NETWORK COMPUTING ENVIRONMENT

APPLICATION NUMBER: 12316778

FILING DATE: 12/15/2008

PATENT NUMBER:

ISSUE DATE:

TITLE: MULTI-PATHING WITH SCSI I/O REFERRALS

APPLICATION NUMBER: 12387610

FILING DATE: 05/05/2009

ISSUE DATE: PATENT NUMBER:

TITLE: EMBEDDED SCALE-OUT AGGREGATOR FOR STORAGE ARRAY CONTROLLERS

APPLICATION NUMBER: 61106309

FILING DATE: 10/17/2008

PATENT NUMBER:

ISSUE DATE:

TITLE: EMBEDDED SCALE OUT AGGREGATOR FOR LSI STORAGE SYSTEM

CONTROLLERS

APPLICATION NUMBER: 12317151

FILING DATE: 12/19/2008

ISSUE DATE: PATENT NUMBER:

TITLE: ACCELERATING INTERNET SMALL COMPUTER SYSTEM INTERFACE

(ISCSI) PROXY INPUT/OUTPUT (I/O)

APPLICATION NUMBER: 12402675

FILING DATE: 03/12/2009

PATENT NUMBER:

ISSUE DATE:

TITLE: APPLICATION INDEPENDENT STORAGE ARRAY PERFORMANCE OPTIMIZER

APPLICATION NUMBER: 12395786

FILING DATE: 03/02/2009

ISSUE DATE:

PATENT NUMBER:

TITLE: SYSTEM FOR HANDLING INPUT/OUTPUT REQUESTS BETWEEN STORAGE

ARRAYS WITH DIFFERENT PERFORMANCE CAPABILITIES

APPLICATION NUMBER: 12507700

FILING DATE: 07/22/2009

PATENT NUMBER:

ISSUE DATE:

TITLE: NON-DISRUPTIVE METHODS FOR UPDATING A CONTROLLER OF A

STORAGE SYSTEM

APPLICATION NUMBER: 12474280

FILING DATE: 05/29/2009

PATENT NUMBER:

ISSUE DATE:

TITLE: POLICY-BASED APPLICATION AWARE STORAGE ARRAY SNAPSHOT BACKUP

AND RESTORE TECHNIQUE

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TO: DAVID L. MCCOMBS COMPANY: HAYNES AND BOONE, LLP

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APPLICATION NUMBER: 12969892

FILING DATE: 12/16/2010

ISSUE DATE:

TITLE: SYSTEM TO CONNECT A SERIAL SCSI ARRAY CONTROLLER TO A

STORAGE AREA NETWORK

APPLICATION NUMBER: 61080762

FILING DATE: 07/15/2008

PATENT NUMBER:

PATENT NUMBER:

PATENT NUMBER:

PATENT NUMBER:

ISSUE DATE:

TITLE: SYSTEM TO CONNECT A SERIAL SCSI ARRAY CONTROLLER TO A

STORAGE AREA NETWORK

APPLICATION NUMBER: 12182325

FILING DATE: 07/30/2008

ISSUE DATE:

TITLE: LOW POWER CONSUMPTION STORAGE ARRAY

APPLICATION NUMBER: 12165181

FILING DATE: 06/30/2008

ISSUE DATE:

TITLE: OPTIMIZED CACHE COHERENCY IN A DUAL-CONTROLLER STORAGE ARRAY

APPLICATION NUMBER: 12428703

FILING DATE: 04/23/2009

PATENT NUMBER:

ISSUE DATE:

TITLE: ACTIVE-ACTIVE SUPPORT OF VIRTUAL STORAGE MANAGEMENT IN A

STORAGE AREA NETWORK ("SAN")

APPLICATION NUMBER: 12286591

FILING DATE: 09/30/2008

PATENT NUMBER: ISSUE DATE:

TITLE: SYSTEM AND METHOD FOR PROVIDING PERFORMANCE-ENHANCED REBUILD OF A SOLID-STATE DRIVE (SSD) IN A SOLID-STATE DRIVE HARD DISK DRIVE (SSD HDD) REDUNDANT ARRAY OF INEXPENSIVE DISKS 1 (RAID 1) PAIR

APPLICATION NUMBER: 12260324

FILING DATE: 10/29/2008

PATENT NUMBER:

ISSUE DATE:

TITLE: METHODS AND SYSTEMS FOR RECOVERING A COMPUTER SYSTEM USING A STORAGE AREA NETWORK

APPLICATION NUMBER: 12316902

FILING DATE: 12/17/2008

PATENT NUMBER:

ISSUE DATE:

TITLE: STORAGE SYSTEM SNAPSHOT ASSISTED BY SSD TECHNOLOGY

APPLICATION NUMBER: 12238438

FILING DATE: 09/26/2008 ISSUE DATE:

PATENT NUMBER:

TITLE: PRIORITY COMMAND QUEUES FOR LOW LATENCY SOLID STATE DRIVES

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APPLICATION NUMBER: 11002610 FILING DATE: 12/02/2004

PATENT NUMBER: ISSUE DATE:

TITLE: DYNAMIC COMMAND CAPACITY ALLOCATION ACROSS MULTIPLE SESSIONS

AND TRANSPORTS

APPLICATION NUMBER: 10973478 FILING DATE: 10/26/2004

PATENT NUMBER: ISSUE DATE:

TITLE: METHOD AND SYSTEM FOR EFFICIENT WRITE JOURNAL ENTRY

MANAGEMENT FOR A DISTRIBUTED FILE SYSTEM

APPLICATION NUMBER: 11289140 FILING DATE: 11/29/2005

PATENT NUMBER: ISSUE DATE:

TITLE: SYSTEMS AND METHOD FOR SIMPLE SCALE-OUT STORAGE CLUSTERS

APPLICATION NUMBER: 11516232 FILING DATE: 09/05/2006

PATENT NUMBER: ISSUE DATE:

TITLE: SECURITY-ENABLED STORAGE CONTROLLER

APPLICATION NUMBER: 12077804 FILING DATE: 03/20/2008

PATENT NUMBER: ISSUE DATE:

TITLE: SENDING VOLUMINOUS DATA OVER THE INTERNET

APPLICATION NUMBER: 12070443 FILING DATE: 02/19/2008

PATENT NUMBER: ISSUE DATE:

TITLE: UTILIZING REMOVABLE VIRTUAL VOLUMES FOR SHARING DATA ON A

STORAGE AREA NETWORK

APPLICATION NUMBER: 12200497 FILING DATE: 08/28/2008

PATENT NUMBER: ISSUE DATE:

TITLE: METHODS AND SYSTEMS FOR INTEGRATED STORAGE AND DATA

MANAGEMENT USING A HYPERVISOR

APPLICATION NUMBER: 12200643 FILING DATE: 08/28/2008

PATENT NUMBER: ISSUE DATE:

TITLE: CIRCUITS, SYSTEMS, AND METHODS TO INTEGRATE STORAGE

VIRTUALIZATION IN A STORAGE CONTROLLER

APPLICATION NUMBER: 12262248 FILING DATE: 10/31/2008

PATENT NUMBER: ISSUE DATE:

TITLE: CONTROL I/O OFFLOAD IN A SPLIT-PATH STORAGE VIRTUALIZATION

SYSTEM

APPLICATION NUMBER: 12201104 FILING DATE: 08/29/2008

PATENT NUMBER: ISSUE DATE:

TITLE: STORAGE ARRAY BOOT AND CONFIGURATION

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APPLICATION NUMBER: 12573238 FILING DATE: 10/05/2009

PATENT NUMBER: ISSUE DATE:

TITLE: METHOD AND APPARATUS FOR DEBUGGING PROTOCOL TRAFFIC BETWEEN

DEVICES IN INTEGRATED SUBSYSTEMS

APPLICATION NUMBER: 12559915 FILING DATE: 09/15/2009

PATENT NUMBER: ISSUE DATE:

TITLE: DEVICES AND METHODS FOR MATCHING LINK SPEEDS BETWEEN

CONTROLLERS AND CONTROLLED DEVICES

APPLICATION NUMBER: 12605056 FILING DATE: 10/23/2009

PATENT NUMBER: ISSUE DATE:

TITLE: ADJUSTABLE EMI BAFFLING APPARATUS FOR DATA STORAGE SYSTEMS

APPLICATION NUMBER: 12405128 FILING DATE: 03/16/2009

PATENT NUMBER: ISSUE DATE:

TITLE: SWITCHING SERIAL ADVANCED TECHNOLOGY ATTACHMENT (SATA) TO A

PARALLEL INTERFACE

APPLICATION NUMBER: 12406029 FILING DATE: 03/17/2009

PATENT NUMBER: ISSUE DATE:

TITLE: ROUTE AWARE SERIAL ADVANCED TECHNOLOGY ATTACHMENT (SATA)

SWITCH

APPLICATION NUMBER: 60477857 FILING DATE: 06/11/2003

PATENT NUMBER: ISSUE DATE:

TITLE: SERIAL ATA SWITCH

APPLICATION NUMBER: 12404257 FILING DATE: 03/13/2009

PATENT NUMBER: ISSUE DATE:

TITLE: SERIAL ADVANCED TECHNOLOGY ATTACHMENT (SATA) SWITCH

APPLICATION NUMBER: 11863688 FILING DATE: 09/28/2007

PATENT NUMBER: ISSUE DATE:

TITLE: FUEL CELL BASED BATTERY BACKUP APPARATUS FOR STORAGE

SUBSYSTEMS

APPLICATION NUMBER: 10714031 FILING DATE: 11/14/2003

PATENT NUMBER: ISSUE DATE:

TITLE: METHODS AND STRUCTURES FOR A CACHING TO ROUTER IN ISCSI

STORAGE SYSTEMS

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APPLICATION NUMBER: 12211838 FILING DATE: 09/17/2008

PATENT NUMBER: ISSUE DATE:

TITLE: METHOD FOR REMOTE DATA BACK UP WITH DE-DUPLICATION AND

RECOVERY FROM CLUSTERED SECONDARY STORAGE ARRAYS

APPLICATION NUMBER: 12354126 FILING DATE: 01/15/2009

PATENT NUMBER: ISSUE DATE:

TITLE: METHOD FOR HANDLING INTERRUPTED WRITES USING MULTIPLE CORES

APPLICATION NUMBER: 12100520 FILING DATE: 04/10/2008

PATENT NUMBER: ISSUE DATE:

TITLE: STORAGE BLADE

APPLICATION NUMBER: 12324224 FILING DATE: 11/26/2008

PATENT NUMBER: ISSUE DATE:

TITLE: METHOD AND/OR APPARATUS FOR CERTIFYING AN IN-BAND MANAGEMENT

APPLICATION OF AN EXTERNAL STORAGE ARRAY

APPLICATION NUMBER: 12143123 FILING DATE: 06/20/2008
PATENT NUMBER: 7958397 ISSUE DATE: 06/07/2011
TITLE: SYSTEM FOR AUTOMATICALLY CONFIGURING A STORAGE ARRAY

APPLICATION NUMBER: 12492147 FILING DATE: 06/26/2009

PATENT NUMBER: ISSUE DATE:

TITLE: UNIFIED ENTERPRISE LEVEL METHOD AND SYSTEM FOR ENHANCING

APPLICATION AND STORAGE PERFORMANCE

APPLICATION NUMBER: 11545872 FILING DATE: 10/10/2006
PATENT NUMBER: 7958273 FILING DATE: 06/07/2011
TITLE: SYSTEM AND METHOD FOR CONNECTING SAS RAID CONTROLLER DEVICE

CHANNELS ACROSS REDUNDANT STORAGE SUBSYSTEMS

APPLICATION NUMBER: 12429519 FILING DATE: 04/24/2009

PATENT NUMBER: ISSUE DATE:

TITLE: VIRTUALIZED DATA STORAGE IN A VIRTUALIZED SERVER ENVIRONMENT

APPLICATION NUMBER: 12221515 FILING DATE: 08/04/2008

PATENT NUMBER: ISSUE DATE:

TITLE: SCHEDULING PROPORTIONAL STORAGE SHARE FOR STORAGE SYSTEMS

APPLICATION NUMBER: 12080217 FILING DATE: 04/01/2008

PATENT NUMBER: ISSUE DATE:

TITLE: SYSTEM FOR AUTOMATING STORAGE DEVICE SWAPS AND/OR

REPLACEMENTS

SCHEDULE A

ASSIGNED PATENTS

TITLE	COUNTRY	APPLICATION	APPLICATION	PATENT NUMBER	ISSUE
	/ REGION	NUMBER	DATE		DATE
Method For Remote Data Back Up With De- Duplication And Recovery From Clustered Secondary Storage Arrays	US	12/211838	17-Sep-08		
Method For Handling Interrupted Writes Using Multiple Cores	US	12/354126	15-Jan-09		
Drive Blade Construction	US	12/100520	10-Apr-08		
Method And/Or Apparatus For Certifying An In-Band Management Application Of An External Storage Array	US	12/324224	26-Nov-08		
System For Automatically Configuring A Storage Array	US	12/143123	20-Jun-08		
Unified Enterprise Level Method And System For Enhancing Application And Storage Performance	US	12/492147	26-Jun-09		
System And Method For Connecting SAS RAID Controller Device Channels Across Redundant Storage Subsystems	US	11/545872	10-Oct-06		
System And Method For Connecting SAS RAID Controller Device Channels Across Redundant Storage Subsystems	CN	2007800340247.0	10-Oct-07		
System And Method For Connecting SAS RAID Controller Device Channels Across Redundant Storage Subsystems	DE	1120070022116.0	10-Oct-07		
System And Method For Connecting SAS RAID Controller Device	GB	9049974	10-Oct-07		

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TITLE	COUNTRY / REGION	APPLICATION NUMBER	APPLICATION DATE	PATENT NUMBER	ISSUE DATE
Channels Across					
Redundant Storage					
Subsystems	<u> </u>				
System And Method For	JP	2009532384	10-Oct-07		
Connecting SAS RAID					İ
Controller Device					
Channels Across	Į				
Redundant Storage					1
Subsystems					1
System And Method For	KR	1020097009479.0	10-0ct-07		
Connecting SAS RAID					
Controller Device					•
Channels Across					
Redundant Storage					
Subsystems					
System And Method For	PCT	PCTUS0721613	10-Oct-07		
Connecting SAS RAID					
Controller Device					
Channels Across					İ
Redundant Storage					
Subsystems					
Virtualized Data Storage	US	12/429519	24-Apr-09		
In A Virtualized Server		·	•		
Environment					
Virtualized Data Storage	wo	PCT/US2009/042311	30-Apr-09		
In A Virtualized Server		,	1		
Environment					
Virtualized Data Storage	TW	98116944	21-May-09		
In A Virtualized Server		3320311			}
Environment					1
Scheduling Proportional	US	12/221515	4-Aug-08		
Storage Share For	03	12/221313	4-Mug-00		
•					
Storage Systems					
C	110	42/000247	4.4 00		
System For Automating	US	12/080217	1-Apr-08		
Storage Device Swaps			•		
And/Or Replacements					
Integrated Cru Latch	US	10/143649	10-May-02	7796396	14-Sep-10
Magnetic Proximity	US	10/161478	31-May-02	6969928	29-Nov-05
Interface Control		,			
Apparatus For Providing	US	10/198684	18-Jul-02	7493404	17-Feb-09
Transparent Sharing Of	53	10/10004	20 30, 02		1000
Channel Resources By					1
Multiple Host Machines,					
For Use With Mixed					
Mode Block And File					
WINDE DIDCK AND THE	<u> </u>	<u> </u>	I		L

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TITLE	COUNTRY / REGION	APPLICATION NUMBER	APPLICATION DATE	PATENT NUMBER	ISSUE DATE
Protocols	·	·			
Method And Apparatus For Debugging Protocol Traffic Between Devices Inintegrated Subsystems	US	10/218726	14-Aug-02	7616631	10-Nov-09
Method And Apparatus For Debugging Protocol Traffic Between Devices In Integrated Subsystems	US	12/573238	5-Oct-09		
Method And Apparatus For Automatically Tracking And Communicating Data Storage Device Information Using RF Tags: Operating Condition, Configuration And Location	US	10/620778	15-Jul-03	7478758	20-Jan-09
Method And Apparatus For Automatically Tracking And Communicating Data Storage Device Information Using RF Tags: Operating Condition, Configuration And Location	US	12/317226	19-Dec-08	7766220	3-Aug-10
Systems And Methods For Allocating An Asset To Interconnected Devices	US	10/424408	28-Apr-03	7818461	19-Oct-10
Methods For Defining And Naming ISCSI Targets Using Volume Access And Security Policy	US	10/741559	19-Dec-03	7568216	28-Jul-09
Method And Apparatus For Identifying Ipsec Security Policy In Iscsi	US	10/741563	19-Dec-03	7461140	2-Dec-08

TITLE	COUNTRY / REGION	APPLICATION NUMBER	APPLICATION DATE	PATENT NUMBER	ISSUE DATE
Transmit Prioritizer Context Prioritization Scheme	US	10/671353	25-Sep-03	7573870	11-Aug-09
Failed Drive Locator For Removable Disk Array Modules	US	10/817344	2-Apr-04	7395460	1-Jul-08
Enclosure Slot Identification By Modules	US	10/783785	20-Feb-04	7783792	24-Aug-10
Electromagnetic Interference Shield For Data Storage Systems	US	11/130618	17-May-05	7492608	17-Feb-09
User Configurable Ultra320 SCSI Target Device Simulator And Error Injector	US	10/984287	8-Nov-04	7376546	20-May-08
Method And Apparatus For Fully Automated Iscsi Target Configuration	US	10/968495	19-Oct-04	7584272	1-Sep-09
Method For Detecting Changes in A Storage Area Network Without External Tools And Hardware	US	10/972809	25-Oct-04	7769849	3-Aug-10
Self Verifying Communications Testing	US	10/959619	6-Oct-04	7409618	5-Aug-08
Methods And Systems For Automatically Identifying A Modification To A Storage Array	US	11/136741	24-May-05	7840755	23-Nov-10
Method Of Validating Manufacturing Configurations During Hardware Assembly	US	10/966861	15-Oct-04	7441320	28-Oct-08
Online Testing Unification System With Remote Test Automation Technology	US	11/052434	7-Feb-05	7673179	2-Mar-10
Remote Status And Control Of Storage Devices	US	11/070361	2-Mar-05	7689586	30-Mar-10
Fibre Selective Control Switch System	US	11/057548	14-Feb-05	7620320	17-Nov-09

TITLE	COUNTRY / REGION	APPLICATION NUMBER	APPLICATION DATE	PATENT NUMBER	ISSUE DATE
System And Method For Fabric Storage Utilizing Multicast With Distributed Intelligence	US	11/167379	27-Jun-05	7760727	20-Jul-10
Methods And Systems For Locking In Storage Controllers	US	11/253368	19-Oct-05	7529902	5-May-09
Methods And Structure For Detection And Handling Of Catastrophic SCSI Errors	US	10/986751	12-Nov-04	7428665	23-Sep-08
Methods And Structure For Detection And Handling Of Catastrophic SCSI Errors	US	11/924813	26-Oct-07	7853831	14-Dec-10
System For Providing An Alternative Communication Path In A SAS Cluster	US	11/064684	24-Feb-05	7552355	23-Jun-09
System For Providing An Alternative Communication Path In A SAS Cluster	US	12/387043	27-Apr-09	7836351	16-Nov-10
Application Programming Interface For Fusion Message Passing Technology	US	11/148395	7-Jun-05	7761630	20-Jul-10
System And Method To Synchronize And Coordinate Parallel, Automated Fault Injection Processes Against Storage Area Network Arrays	US	11/248544	12-Oct-05	7444267	28-Oct-08
Method Of Partitioning Storage in Systems With Both Single And Virtual Target Interfaces	US	11/283232	18-Nov-05	7765365	27-Jul-10
Method For Creating A Large-Scale Storage Array System Out Of Multiple Mid-Range Storage Arrays	US	11/192636	29-Jul-05	7568069	28-Jul-09
Peer-To-Peer License Tracking And Control	US	11/328700	10-Jan-06	7650642	19-Jan-10
Methods And Structure For Verifying Domain Functionality	US	11/224850	13-Sep-05	7412631	12-Aug-08

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TITLE	COUNTRY / REGION	APPLICATION NUMBER	APPLICATION DATE	PATENT NUMBER	ISSUE DATE
Self-Aligning Electromagnetic	US	11/493260	25-Jul-06	7390975	24-Jun-08
Interference Gaskets For					
Customer Removable					
Modules					
Write Journaling Using	US	11/220936	7-Sep-05	7533298	12-May-09
Battery Backed Cache		_			
Devices And Methods	US	11/286633	23-Nov-05	7599392	6-Oct-09
For Matching Link					
Speeds Between					
Controllers And	!			1	
Controlled Devices					
Devices And Methods	US	12/559915	15-Sep-09		
For Matching Link			,		
Speeds Between	•			•	
Controllers And					
Controlled Devices					ļ
Dynamic Peer	US	11/272920	14-Nov-05	7623472	24-Nov-09
Application Discovery					Į
Method For Reporting	US	11/540468	29-Sep-06	7847801	7-Dec-10
Redundant Controllers	05	12/540400	25 567 55		
As Independent Storage				ı	1
Entities					
Methods For Reporting A	PCT	PCT/US2007/020570	24-Sep-07		
Storage Array With	"	1 701/032007/020370	24-3ер-07		1
Redundant Dual Active	1				
Controllers As Two					
Independent Storage					
Entries To The Hosts	1		1		ŀ
	US	11/634064	5-Dec-06	7667984	23-Feb-10
Adjustable EMI Baffling	03	11/054004	3-560-00	7007504	23.0010
Apparatus For Data					
Storage Systems		10/202025	22.0-1.00		
Adjustable Emi Baffling	US	12/605056	23-Oct-09		
Apparatus For Data					
Storage Systems	ļ				
Multi-Fan Airflow	US	11/673466	9-Feb-07	7515411	7-Apr-09
Regulation For Fan Fail					
Conditions					
Storage Virtualization In	US	10/257426	10-Oct-02	6898670	24-May-05
A Storage Area Network					
Storage Virtualization In	CA	2405405	04-Apr-01		
A SAN	ļ				
Storage Virtualization in	EPO	19197417	04-Apr-01		
A SAN				İ	
Storage Area Network	US	10/469727	28-Aug-03	7437753	14-Oct-08
(SAN) Security					
Storage Area Network	CA	2439692	27-Feb-02		
Provide Uses MCMANY	1 50	- 10000	1	İ	1

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TITLE	COUNTRY / REGION	APPLICATION NUMBER	APPLICATION DATE	PATENT NUMBER	ISSUE
Storage Area Network (SAN) Security	EP	27005560	27-Feb-02	1374056	21-Jun-06
Storage Area Network (SAN) Security	GB	27005560	27-Feb-02	1374056	21-Jun-06
Storage Area Network (SAN) Security	IE	27005560	27-Feb-02	1374056	21-Jun-06
Horizontal Drive System And Method	US	12/082481	11-Apr-08	7864539	4-Jan-11
Improved Method Of Securing And Protecting Expansion Cards In Mating Slots	US	12/072145	25-Feb-08	7713066	11-May-10
Switching Serial Advanced Technology Attachment (Sata)	US	10/775521	9-Feb-04	7523236	21-Apr-09
Switching Serial Advanced Technology Attachment (Sata)	US	12/405128	16-Mar-09		
Route Aware Serial Advanced Technology Attachment (Sata) Switch	US	10/775523	9-Feb-04	7539797	26-May-09
Route Aware Serial Advanced Technology Attachment (Sata) Switch	US	12/406029	17-Mar-09		
Serial Ata Switch	US	10/775488	9-Feb-04	7523235	21-Apr-09
Serial Ata Switch	US	60/477857	11-Jun-03		
Serial Ata Switch	US	12/404257	13-Mar-09		
Serial Ata Switch	CN	2004100493109.0	10-Jun-04	ZL200410049310.9	12-Nov-08
Serial Ata Switch	DE	42530931	26-May-04	1486880	12-Jan-11
Serial Ata Switch	EP	42530931	26-May-04	1486880	12-Jan-11
Serial Ata Switch	JP	2004174862	11-Jun-04		
Serial Ata Switch	TW	93113828	17-May-04	1318738	21-Dec-09
Serial Ata Switch	GB	42530931	26-May-04	1486880	12-Jan-11
Drive Box	US	12/167472	3-Jul-08	7715182	11-May-10
Drive Box	CN	2009801224026.0	07-Jan-09		
Drive Box	EP	97739346	07-Jan-09		
Drive Box	KR	1020117002292	07-Jan-09		
Drive Box	PCT	PCT/US2009/030302	07-Jan-09		

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TITLE	COUNTRY / REGION	APPLICATION NUMBER	APPLICATION DATE	PATENT NUMBER	ISSUE
Drive Box	TW	98102345	21-Jan-09		
Articulating Cable Chain Assembly	US	12/208182	10-Sep-08	7552581	30-Jun-09
Configurable Storage Array Controller	US	12/419840	7-Apr-09	7913027	22-Mar-11
Methods And Apparatus For Issuing Updates To Multiple Management Entitles	US	09/350742	9-Jul-99	7640325	29-Dec-09
Fuel Cell Based Battery Backup Apparatus For Storage Subsystems	US	11/863688	28-Sep-07		
Methods And Structures For A Caching To Router In Iscsi Storage Systems	US	10/714031	14-Nov-03		
Dynamic Command Capacity Allocation Across Multiple Sessions And Transports	US	11/002610	2-Dec-04		
Method And System For Efficient Write Journal Entry Management For A Distributed File System	US	10/973478	26-Oct-04		
Systems And Method For Simple Scale-Out Storage Clusters	US	11/289140	29-Nov-05		
Security-Enabled Storage Controller	US	11/516232	5-Sep-06		
Sending Voluminous Data Over The Internet	US	12/077804	20-Mar-08		
Utilizing Removable Virtual Volumes For Sharing Data On A Storage Area Network	US	12/070443	19-Feb-08		
Methods And Systems For Integrated Storage And Data Management Using A Hypervisor	US	12/200497	28-Aug-08	and E	
Circuits, Systems, And Methods To Integrate Storage Virtualization In A Storage Controller	US	12/200643	28-Aug-08		
Control IO Offload In A Split Path-Storage Virtualization System	US	12/262248	31-Oct-08	74144	

TITLE	COUNTRY / REGION	APPLICATION NUMBER	APPLICATION DATE	PATENT NUMBER	ISSUE DATE
Storage Array Boot And Configuration	US	12/201104	29-Aug-08		
System To Connect A Serial SCSI Array Controller To A Storage Area Network	US	12/969892	21-Aug-08		
System To Connect A Serial SCSI Array Controller To A Storage Area Network	US	61/080762	15-Jul-08		
System To Connect A Serial SCSI Array Controller To A Storage Area Network	CN	2008801303220.0	21-Aug-08		
System To Connect A Serial SCSI Array Controller To A Storage Area Network	EP	87954855	21-Aug-08		
System To Connect A Serial SCSI Array Controller To A Storage Area Network	KR	20117001394	21-Aug-08		
System To Connect A Serial SCSI Array Controller To A Storage Area Network	PCT	PCT/US2008/009944	21-Aug-08		
System To Connect A Serial SCSI Array Controller To A Storage Area Network	TW	97138858	21-Oct-08		
Low Power Consumption Storage Array	US	12/182325	30-Jul-08		
Optimized Cache Coherency in A Dual- Controller Storage Array	US	12/165181	30-Jun-08		
Active-Active Support Of Virtual Storage Management In A Storage Area Network ("San")	US	12/428703	23-Apr-09		

Active-Active Presentation Of Volumes From Data Path Modules Active-Active Support Of Virtual Storage Management In A Storage Area Network ("San") System And Method For Providing Performance-Enhanced Rebuild Of A Solid-State Drive (Ssd) in A Solid-State Drive (Ssd) in A Solid-State Drive (Ssd) in A Solid-State Drive Hard Disk Drive (Ssd Hdd) Redundant Array Of Inexpensive Disks 1 (Raid 1) Pair Methods And Systems For Recovering A Computer System Using A Storage Area Network Methods And Systems For Recovering A Computer System Using A Storage Area Network Methods And Systems For Recovering A Computer System Using A Storage Area Network Methods And Systems For Recovering A Computer System Using A Storage Area Network Methods And Systems For Recovering A Computer System Using A Storage Area Network Methods And Systems For Recovering A Computer System Using A Storage Area Network Methods And Systems TW 98118808 05-Jun-09 Tomputer System Using A Storage Area Network Methods And Systems Storage System Snapshot Assisted By SSD Technology	TITLE	COUNTRY / REGION	APPLICATION NUMBER	APPLICATION DATE	PATENT NUMBER	ISSUE DATE
Virtual Storage Management In A Storage Area Network ("San") System And Method For Providing Performance- Enhanced Rebuild Of A Solid-State Drive (Ssd) In A Solid-State Drive (Ssd) In A Solid-State Drive Hard Disk Drive (Ssd Hdd) Redundant Array Of Inexpensive Disks 1 (Raid 1) Pair Methods And Systems For Recovering A Computer System Using A Storage Area Network Methods And Systems For Recovering A Computer System Using A Storage Area Network Methods And Systems For Recovering A Computer System Using A Storage Area Network Methods And Systems For Recovering A Computer System Using A Storage Area Network Methods And Systems For Recovering A Computer System Using A Storage Area Network Methods And Systems For Recovering A Computer System Using A Storage System Snapshot A Storage System Snapshot Assisted By SSD	Presentation Of Volumes	PCT	PCT/US2009/043561	12-May-09		
Providing Performance-Enhanced Rebuild Of A Solid-State Drive (Ssd) In A Solid-State Drive (Ssd) In A Solid-State Drive (Ssd) In Bedundant Array Of Inexpensive Disks 1 (Raid 1) Pair Methods And Systems For Recovering A Computer System Using A Storage Area Network Methods And Systems For Recovering A Computer System Using A Storage Area Network Methods And Systems For Recovering A Computer System Using A Storage Area Network TW 98118808 05-Jun-09 For Recovering A Computer System Using A Storage Area Network Methods And Systems For Recovering A Computer System Using A Storage Area Network Storage System Snapshot Assisted By SSD	Virtual Storage Management In A Storage Area Network	TW	98118506	05-Jun-09		
For Recovering A Computer System Using A Storage Area Network Methods And Systems For Recovering A Computer System Using A Storage Area Network Methods And Systems For Recovering A Computer System Using A Storage Area Network Methods And Systems For Recovering A Computer System Using A Storage Area Network Storage System Snapshot Assisted By SSD PCT PCT/US2009/043468 11-May-09 05-Jun-09 05-Jun-09 17-Dec-08	Providing Performance- Enhanced Rebuild Of A Solid-State Drive (Ssd) In A Solid-State Drive Hard Disk Drive (Ssd Hdd) Redundant Array Of Inexpensive Disks 1 (Raid	US	12/286591	30-Sep-08		
For Recovering A Computer System Using A Storage Area Network Methods And Systems For Recovering A Computer System Using A Storage Area Network Storage System Snapshot Assisted By SSD Decrose 12/316902 17-Dec-08	For Recovering A Computer System Using	US	12/260324	29-Oct-08		
Methods And Systems For Recovering A Computer System Using A Storage Area Network Storage System Snapshot Assisted By SSD TW 98118808 05-Jun-09 17-Dec-08	For Recovering A Computer System Using	PCT	PCT/US2009/043468	11-May-09		
Storage System Snapshot US 12/316902 17-Dec-08 Assisted By SSD	Methods And Systems For Recovering A Computer System Using	TW	98118808	05-Jun-09		
	Storage System Snapshot Assisted By SSD	US	12/316902	17-Dec-08		

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Flash SSD Assisted Snapshot	PCT	PCT/US2009/002008	30-Mar-09		
Flash SSD Assisted Snapshot	TW	98110790	01-Apr-09		
Priority Command Queues For Low Latency Solid State Drives	US	12/238438	26-Sep-08		
Small Computer System Interface Input Output (Scsi Io) Referral	US	12/316713	15-Dec-08		
Virtualized Data Storage In A Network Computing Environment	US	12/506143	20-Jul-09		
Multi-Pathing With SCSI I/O Referrals	US	12/316778	15-Dec-08		
Embedded Scale Out Aggregator For LSI Storage System Controllers	US	12/387610	5-May-09		
Embedded Scale Out Aggregator For LSI Storage System Controllers	US	61/106309	17-Oct-08		
Embedded Scale Out Aggregator For LSI Storage System Controllers	CN	2009101692649.0	25-Aug-09		
Embedded Scale Out Aggregator For LSI Storage System Controllers	EP	92517754	9-Jul-09		

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Embedded Scale Out Aggregator For LSI Storage System Controllers	JР	2009237920	15-Oct-09		
Embedded Scale Out Aggregator For LSI Storage System Controllers	KR	20090067089	23-Jul-09		
Embedded Scale Out Aggregator For LSI Storage System Controllers	TW	98125174	27-Jul-09		
ACCELERATING INTERNET SMALL COMPUTER SYSTEM INTERFACE (Iscsi) PROXY INPUT/OUTPUT (I/O)	US	12/317151	19-Dec-08		
Aplication Independent Storage Array Performance Optimizer	US	12/402675	12-Mar-09		
A Method To Handle los Between Two Arrays With Different Performance Capabilities	US	12/395786	2-Mar-09		
Non-Disruptive Methods For Updating A Controller Of A Storage Subsystem	US	12/507700	22-Jul-09		
Policy-Based Application Aware Storage Array Snapshot Backup And Restore Technique	US	12/474280	29-May-09		
Cable Chain Return System And Associated Methods	US	12/417510	2-Apr-09		
Embedded Private Scale Out Network	US	12/481389	9-Jun-09		
Embedded Private Scale Out Network	CN	2009101706675.0	01-Sep-09		
Embedded Private Scale Out Network	EP	91752550	06-Nov-09		
Embedded Private Scale Out Network	JP	20107804	18-Jan-10		

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Embedded Private Scale Out Network	KR	20090096172	09-Oct-09		
Embedded Private Scale Out Network	TW	98125374	28-Jul-09		
Storage Array Assist Architecture	US	12/481303	9-Jun-09		
Storage Array Assist Architecture	CN	200910170668X	01-Set-09		
Storage Array Assist Architecture	EP	101563351	12-Mar-10		
Storage Array Assist Architecture	JP	20107803	18-Jan-10		·
Storage Array Assist Architecture	KR	1020090096167.0	09-Oct-09	,	
Storage Array Assist Architecture	TW	98125377	28-Jul-09		
Enterprise Level Green Storage System Disk Drive Technique	US	12/407795	20-Mar-09		,
Customer Replaceable Unit Drive Isolator	US	12/600877	19-Nov-09		
Customer Replaceable Unit Drive Isolator	WO	PCTUS2008075045	02-Sep-08		
Customer Replaceable Unit Drive Isolator	CN	2008800128099.0	02-Sep-08		
Customer Replaceable Unit Drive Isolator	EP	88210935	02-Sep-08		
Customer Replaceable Unit Drive Isolator	KR	1020107006822.0	02-Sep-08		
Customer Replaceable Unit Drive Isolator	TW	97143731	12-Nov-08		

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