

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT3523794

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT

## CONVEYING PARTY DATA

Name	Execution Date
LSI LOGIC CORPORATION	05/06/2011

## RECEIVING PARTY DATA

<b>Name:</b>	NetApp, Inc.
<b>Street Address:</b>	495 East Java Drive
<b>City:</b>	Sunnyvale
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	94089

## PROPERTY NUMBERS Total: 16

Property Type	Number
Patent Number:	6691245
Patent Number:	6340795
Patent Number:	6422893
Patent Number:	6480970
Patent Number:	6820099
Patent Number:	6757753
Patent Number:	7042737
Patent Number:	6766466
Patent Number:	6795849
Patent Number:	7077942
Patent Number:	6959007
Patent Number:	6498890
Patent Number:	6813676
Patent Number:	7093265
Patent Number:	6730842
Patent Number:	7080190

## 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.*

**PATENT**

503477169

REEL: 036552 FRAME: 0557

**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

<b>ATTORNEY DOCKET NUMBER:</b>	47415.3
<b>NAME OF SUBMITTER:</b>	THOMAS W. KELTON
<b>SIGNATURE:</b>	/Thomas W. Kelton/
<b>DATE SIGNED:</b>	09/14/2015

**Total Attachments: 16**

source=LSI-Logic-Corporation-to-NetApp-Inc#page1.tif  
source=LSI-Logic-Corporation-to-NetApp-Inc#page2.tif  
source=LSI-Logic-Corporation-to-NetApp-Inc#page3.tif  
source=LSI-Logic-Corporation-to-NetApp-Inc#page4.tif  
source=LSI-Logic-Corporation-to-NetApp-Inc#page5.tif  
source=LSI-Logic-Corporation-to-NetApp-Inc#page6.tif  
source=LSI-Logic-Corporation-to-NetApp-Inc#page7.tif  
source=LSI-Logic-Corporation-to-NetApp-Inc#page8.tif  
source=LSI-Logic-Corporation-to-NetApp-Inc#page9.tif  
source=LSI-Logic-Corporation-to-NetApp-Inc#page10.tif  
source=LSI-Logic-Corporation-to-NetApp-Inc#page11.tif  
source=LSI-Logic-Corporation-to-NetApp-Inc#page12.tif  
source=LSI-Logic-Corporation-to-NetApp-Inc#page13.tif  
source=LSI-Logic-Corporation-to-NetApp-Inc#page14.tif  
source=LSI-Logic-Corporation-to-NetApp-Inc#page15.tif  
source=LSI-Logic-Corporation-to-NetApp-Inc#page16.tif

## PATENT ASSIGNMENT

THIS PATENT ASSIGNMENT is made as of May 6, 2011 by **LSI LOGIC 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 LOGIC CORPORATION**

By: Marie H. MacNichol  
Name: Marie H. MacNichol  
Title: Vice President - Law

# SCHEDULE A

## ASSIGNED PATENTS

TITLE	COUNTRY / REGION	APPLICATION NUMBER	APPLICATION DATE	PATENT NUMBER	ISSUE DATE
Storage System For Pervasive And Mobile Content	US	11/280764	16-Nov-05		
Systems And Methods For Releaseably Securing An Article Within A Computer System	US	08/885443	30-Jun-97	5963422	5-Oct-99
Standard High Volume Battery Charger	US	10/137587	2-May-02	6630812	7-Oct-03
Method For Detecting Failure In Redundant Controllers Using A Private LUN	US	08/941894	30-Sep-97	5975738	2-Nov-99
Redundant Controller Diagnosis Using A Private Lun	PCT	PCT/US1998/020347	29-Sep-98		
Redundant Controller Diagnosis Using A Private Lun	DE	989485693	29-Sep-98	69802833.3	05-Dec-01
Redundant Controller Diagnosis Using A Private Lun	EP	989485693	29-Sep-98	1019823	05-Dec-01
Redundant Controller Diagnosis Using A Private Lun	FR	989485693	29-Sep-98	1019823	05-Dec-01
Redundant Controller Diagnosis Using A Private Lun	GB	98485693	29-Sep-98	1019823	05-Dec-01
Method for virtual to physical mapping in a mapped compressed virtual storage subsystem	US	08/441866	16-May-95		
Method for virtual to physical mapping in a mapped compressed virtual storage subsystem	US	08/933327	18-Sep-97	5778411	07-Jul-98
Method And Apparatus For Terminating Busses Having Different Widths	US	08/995222	19-Dec-97	5983296	9-Nov-99

TITLE	COUNTRY / REGION	APPLICATION NUMBER	APPLICATION DATE	PATENT NUMBER	ISSUE DATE
Auto-Termination of Plural Multi-Connectors	US	08/433915	02-May-95		
Auto-Termination of Plural Multi-Connectors	EP	963030481	01-May-96		
Auto-Termination of Plural Multi-Connectors	JP	1447731996	01-May-96		
Context-Based Failover Architecture For Redundant Servers	US	08/949678	14-Oct-97	5996086	30-Nov-99
Method For Controlling And Emulating Functional And Logical Behaviors Of An Array Of Storage Devices For Different Protocols	US	10/610154	30-Jun-03	7308397	11-Dec-07
Methods And Structure For Supporting Persistent Reservations In A Multiple-Path Storage Environment	US	10/868554	15-Jun-04	7313636	25-Dec-07
Method And System For Determining And Displaying The Topology Of A Storage Array Network Having Multiple Hosts And Computer Readable Medium For Generating The Topology	US	09/490383	24-Jan-00	6671776	30-Dec-03
Method And Apparatus For Handling Transfers Of Data Volumes Between Controllers In A Storage Environment Having Multiple Paths To The Data Volumes	US	09/735086	11-Dec-00	6675268	6-Jan-04
Method And Apparatus For Recreating Fiber Channel Traffic	US	10/033125	23-Oct-01	6687856	3-Feb-04
Method And Apparatus For Recreating Fiber Channel Traffic	US	09/210171	11-Dec-98	6367033	2-Apr-02

TITLE	COUNTRY / REGION	APPLICATION NUMBER	APPLICATION DATE	PATENT NUMBER	ISSUE DATE
Data Storage With Host-Initiated Synchronization And Fail-Over Of Remote Mirror	US	09/685498	10-Oct-00	6691245	10-Feb-04
Method And Apparatus For Providing Iscsi Target Stealth Operation	US	10/729115	5-Dec-03	7343621	11-Mar-08
Compact Ventilation Unit With Exhaust Ports For Electronic Apparatus	US	08/869267	4-Jun-97	6042474	28-Mar-00
Compact Ventilation Unit With Exhaust Ports For Electronic Apparatus	DE	989261615	03-Jun-98	69822821	31-Mar-04
Compact Ventilation Unit With Exhaust Ports For Electronic Apparatus	EP	989261615	03-Jun-98	986941	31-Mar-04
Compact Ventilation Unit With Exhaust Ports For Electronic Apparatus	FR	989261615	03-Jun-98	986941	31-Mar-04
Compact Ventilation Unit With Exhaust Ports For Electronic Apparatus	GB	989261615	03-Jun-98	986941	31-Mar-04
Compact Ventilation Unit With Exhaust Ports For Electronic Apparatus	PCT	PCT/US1998/011158	03-Jun-98		
Adaptive Clamping Of An Electrochemical Cell Within A Replaceable Container Tray	US	08/884836	30-Jun-97	6048642	11-Apr-00
Adaptive Clamping Of An Electrochemical Cell Within A Replaceable Container Tray	JP	50586299	19-Nov-99		
Adaptive Clamping Of An Electrochemical Cell Within A Replaceable Container Tray	PCT	PCT/US1998/013522	29-Jun-98		

TITLE	COUNTRY / REGION	APPLICATION NUMBER	APPLICATION DATE	PATENT NUMBER	ISSUE DATE
Method And Apparatus For Fibre Channel Identification And Retrieval	US	09/216400	18-Dec-98	6721320	13-Apr-04
Uniform Routing Of Storage Access Requests Through Redundant Array Controllers	US	09/874515	6-Jun-01	6732104	4-May-04
Self-Extraction Panel Hinge	US	10/025245	19-Dec-01	6730842	4-May-04
Electrical Cable	US	09/617160	17-Jul-00	6340795	22-Jan-02
Electrical Connector And Cable	US	09/641736	18-Aug-00	6422893	23-Jul-02
Alternating Shadow Directories In Pairs Of Storage Spaces For Data Storage	US	09/755458	5-Jan-01	6629203	30-Sep-03
Managing A Snapshot Volume Or One Or More Checkpoint Volumes With Multiple Point-In-Time Images In A Single Repository	US	09/735175	11-Dec-00	6594744	15-Jul-03
Testing Components Of A Computerized Storage Network System Having A Storage Unit With Multiple Controllers	US	09/731991	7-Dec-00	6754853	22-Jun-04
Method For Nondisruptive Testing Of Device And Host Attachment To Storage Subsystems	US	09/728415	1-Dec-00	6738937	18-May-04
Method Of Verifying Data Consistency Between Local And Remote Mirrored Data Storage Systems	US	09/876713	7-Jun-01	6480970	12-Nov-02
Instantaneous Data Updating Using Snapshot Volumes	US	09/834823	13-Apr-01	6820099	16-Nov-04
Uniform Routing Of Storage Access Requests Through Redundant Array Controllers	US	09/875475	6-Jun-01	6757753	29-Jun-04

TITLE	COUNTRY / REGION	APPLICATION NUMBER	APPLICATION DATE	PATENT NUMBER	ISSUE DATE
System For Efficiently Channeling High Frequency Data Signals Through Sheet Metal Containment	US	09/734998	12-Dec-00	7042737	9-May-06
System And Method For Isolating Fibre Channel Failures In A SAN Environment	US	09/855666	15-May-01	6766466	20-Jul-04
Paradigm For Inter-Networked Storage	US	09/842335	25-Apr-01	6795849	21-Sep-04
Method For Changing Fibre Channel Speed Of A Drive Loop With ESM-Controlled Drive Boxes Using Redundant Drive Channels	US	09/998734	31-Oct-01	7177942	13-Feb-07
High Speed Network Protocol Stack In Silicon	US	09/888902	25-Jun-01	6959007	25-Oct-05
High Speed Network Protocol Stack In Silicon	US	60/273072	02-Mar-01		
Connector Cable For Connecting Between An Optical Cable And Multiple Devices	US	09/897578	2-Jul-01	6498890	24-Dec-02
Host Interface Bypass On A Fabric Based Array Controller	US	09/916773	27-Jul-01	6813676	2-Nov-04
Method And Apparatus For Providing Highly-Transparent, Host-Based Multi-Pathing Support	US	09/960827	21-Sep-01	7093265	15-Aug-06
Power Ground Short Circuit, With Adjustable Activation Delay And Activation Time Period	US	09/975337	11-Oct-01	6573767	3-Jun-03
Virtual Shared Volume Via Proxy Data Transfer	US	10/029759	29-Oct-01	6889294	3-May-05
Apparatus And Method For Providing Transparent Sharing Of Channel Resources By Multiple Host	US	10/158477	30-May-02	7080190	18-Jul-06



TITLE	COUNTRY / REGION	APPLICATION NUMBER	APPLICATION DATE	PATENT NUMBER	ISSUE DATE
Machines					
System And Method For Providing Graph Structuring For Layered Virtual Volumes	US	10/127870	23-Apr-02	6836821	28-Dec-04
Methods And Systems For Enhanced Automated System Testing	US	10/178135	24-Jun-02	6745145	1-Jun-04
Methods And Structure For Maintaining State Information To Resume Automated Test Processing After Reset	US	10/166513	10-Jun-02	6757634	29-Jun-04
Selectable Keying Device	US	10/191219	9-Jul-02	7204371	17-Apr-07
Method For Determining Deskew Margins In Parallel Interface Receivers	US	10/214801	6-Aug-02	6892334	10-May-05
EMI Sealed Removable Latching Cover	US	10/210574	30-Jul-02	6852924	8-Feb-05
Method And Apparatus For Mapping Storage Partitions Of Storage Elements To Host Systems	US	10/230735	29-Aug-02	6961836	1-Nov-05
Methods And Systems For Enhanced Automated System Testing	US	10/246168	18-Sep-02	6876942	5-Apr-05
Method And Apparatus For Balancing A Request Load Of Communication Channels	US	10/230824	29-Aug-02	7260113	21-Aug-07
Method And Apparatus For Identifying One Or More Devices Having Faults In A Communication Loop	US	10/226553	23-Aug-02	7007191	28-Feb-06
Method For Providing Cable Isolation In A Fibre Channel Test Environment	US	10/271027	15-Oct-02	7007204	28-Feb-06

TITLE	COUNTRY / REGION	APPLICATION NUMBER	APPLICATION DATE	PATENT NUMBER	ISSUE DATE
Method For Providing Cable Isolation In A Fibre Channel Test Environment Using A Software Driven PCI Device	US	10/271281	15-Oct-02	7047449	16-May-06
Apparatus And Method For Enhancing Data Availability By Implementing Inter-Storage-Unit Communication	US	10/289710	7-Nov-02	7039829	2-May-06
Apparatus And Method For Enhancing Data Availability By Leveraging Primary/Backup Data Storage Volumes	US	10/295519	15-Nov-02	7107483	12-Sep-06
Convolutd EMC Seal For Subsystem CRU's In Advanced Controller Based Subsystems	US	10/301390	21-Nov-02	6775131	10-Aug-04
Method And Structure For Read Prefetch In A Storage Complex Architecture	US	10/328672	23-Dec-02	6917990	12-Jul-05
Method And Apparatus For Handling Storage Requests	US	10/329184	23-Dec-02	7043622	9-May-06
Method And Apparatus For Mapping Storage Partitions Of Storage Elements For Host Systems	US	10/315326	10-Dec-02	6944712	13-Sep-05
Methods And Structure For Improved Volume Migration Between Storage Array Subsystems	US	10/395558	24-Mar-03	7010646	7-Mar-06
Methods And Systems For Pre-Merge Read Of Configuration Data From A Foreign Volume Group Inserted In Storage Array	US	10/395512	24-Mar-03	7146481	5-Dec-06

TITLE	COUNTRY / REGION	APPLICATION NUMBER	APPLICATION DATE	PATENT NUMBER	ISSUE DATE
Method And System For Automating Data Storage Array Components Testing With Integrated Work Order Dispatching	US	10/414126	15-Apr-03	6754605	22-Jun-04
Methods And Structure For Testing Responses From SAS Device Controllers Or Expanders	US	10/798680	11-Mar-04	7210065	24-Apr-07
High Speed Serial Interface Test	US	10/457850	9-Jun-03	7082557	25-Jul-06
Methods And Structure For SCSI2 To SCSI3 Reservation Protocol Mapping	US	10/635887	6-Aug-03	7085867	1-Aug-06
Data Storage System With A Removable Backplane Having A Array Of Disk Drives	US	10/660889	12-Sep-03	7042717	9-May-06
Disk Storage System With Removable Arrays Of Disk Drives	US	10/660887	12-Sep-03	6987674	17-Jan-06
Method And Apparatus For Supporting Legacy Mode Fail-Over Driver With Iscsi Network Entity Including Multiple Redundant Controllers	US	10/741756	19-Dec-03	7257730	14-Aug-07
Method To Provide External Observability When Embedded Firmware Detects Predefined Conditions	US	10/730523	8-Dec-03	6990424	24-Jan-06
Onboard Indicator	US	10/731191	8-Dec-03	7194578	20-Mar-07
Method And System For Capturing Data To Create Serial ATA Eye Diagram	US	10/844686	13-May-04	6973407	6-Dec-05
Systems And Methods For Non-Intrusive Testing Of Signals Between Circuits	US	10/766085	27-Jan-04	7024328	4-Apr-06
Wireless Storage Device Connectivity	US	10/838726	4-May-04	7260423	21-Aug-07
Wireless Storage Enterprise Connectivity	US	10/838725	4-May-04	7260417	21-Aug-07

TITLE	COUNTRY / REGION	APPLICATION NUMBER	APPLICATION DATE	PATENT NUMBER	ISSUE DATE
Self-Sealing EMC Door For Removable Units Requiring A Continuous Grounding Barrier	US	11/120840	2-May-05	7081587	25-Jul-06
Intelligent Transportable Memory Apparatus And Method For Charging A Battery For A Memory In An Intelligent Transportable Memory Apparatus	US	10/961323	8-Oct-04	7114658	3-Oct-06
Removable Cage For A Computer Chassis	US	11/041679	24-Jan-05	7193845	20-Mar-07
Thermal Control Through A Channel Structure	US	11/413853	27-Apr-06	7826212	2-Nov-10
Cru Interlocking Emi Shield	US	11/821617	25-Jun-07	7684213	23-Mar-10
Cru Interlocking Emi Shield	US	60/806652	06-Jul-06		
Multiple Drive Plugin Cable	US	11/879602	17-Jul-07	7719843	18-May-10
Shoulder Screw And Handle Drive Mounting System	US	11/903640	24-Sep-07	7576977	18-Aug-09
Methods And Apparatus For Balancing Loads On A Storage Subsystem Among A Plurality Of Controllers	US	08/772618	23-Dec-96	6108684	22-Aug-00
Methods And Apparatus For Balancing Loads On A Storage Subsystem Among A Plurality Of Controllers	PCT	PCT/US1997/023083	15-Dec-97		
Methods And Apparatus For Coordinating Shared Multiple RAID Controller Access To Common Storage Devices	US	08/772614	23-Dec-96	6073218	6-Jun-00

TITLE	COUNTRY / REGION	APPLICATION NUMBER	APPLICATION DATE	PATENT NUMBER	ISSUE DATE
Methods And Apparatus For Coordinating Shared Multiple RAID Controller Access To Common Storage Devices	US	09/499926	8-Feb-00	6457098	24-Sep-02
Methods and Apparatus for Coordinating Shared Multiple RAID Controller Access to Common Storage Devices	PCT	PCT/US1997/023080	15-Dec-97		
Method And Apparatus For Providing Centralized Intelligent Cache Between Multiple Data Controlling Elements	US	08/941770	30-Sep-97	6381674	30-Apr-02
Method And Apparatus For Providing Centralized Intelligent Cache Between Multiple Data Controlling Elements	PCT	PCT/US1998/020423	29-Sep-98		
Apparatus And Method To Provide Virtual Solid State Disk In Cache Memory In A Storage Controller	US	08/994250	19-Dec-97	6567889	20-May-03
Maintaining Identifier Information In A Memory Using Unique Identifiers As A Linked List	US	08/822625	21-Mar-97	5956723	21-Sep-99
Method Of Maintaining Login Service Parameters	US	09/197112	20-Nov-98	6119121	12-Sep-00
Media Drive Canister Vibration Dampner And Method Of Dampening	US	08/990930	15-Dec-97	6166900	26-Dec-00
System Controller With Plurality Of Memory Queues For Prioritized Scheduling Of I/O Requests From Priority Assigned Clients	US	09/047251	24-Mar-98	6157963	5-Dec-00

				PATENT NUMBER	ISSUE DATE
Hot Plugging System Which Precharging Data Signal Pins To The Reference Voltage That Was Generated From Voltage Detected On The Operating Mode Signal Conductor In The Bus	US	08/996841	23-Dec-97	6157974	5-Dec-00
Hot Plugging In Differential Transceivers	PCT	PCT/US1998/026829	16-Dec-98		
User Interface To Provide A Physical View Of Movable Physical Entities	US	09/311220	13-May-99	6384842	7-May-02
Method And Apparatus For Caching Objects In A Disparate Management Environment	US	09/286554	5-Apr-99	6591337	8-Jul-03
Data Transfer Method And Apparatus That Allocate Storage Based Upon A Received Relative Offset	US	09/082996	21-May-98	6310884	30-Oct-01
Programmable Computerize Enclosure Module For Accommodating SCSI Devices And Associated Method Of Configuring Operation Features Thereof	US	09/385124	27-Aug-99	6557049	29-Apr-03
Methods And Apparatus For Performing Mass Operations On A Plurality Of Managed Devices On A Network	US	09/350800	9-Jul-99	6584499	24-Jun-03
System For Updating An Identity Of A Device In Response To Determining That A Neighbor Device Has An Identity Different From One Stored Therein	US	09/223877	31-Dec-98	6366965	2-Apr-02

TITLE	COUNTRY / REGION	APPLICATION NUMBER	APPLICATION DATE	PATENT NUMBER	ISSUE DATE
Methods And Structures For An Extensible RAID Storage Architecture	US	09/607300	30-Jun-00	6820171	16-Nov-04
Methods And Apparatus For Managing Heterogeneous Storage Devices	US	09/350739	9-Jul-99	6769022	27-Jul-04
Alterable Scripting Tool And Method	US	09/206535	7-Dec-98	6311320	30-Oct-01
Methods And Apparatus For Committing Configuration Changes To Managed Devices Prior To Completion Of The Configuration Change	US	09/350735	9-Jul-99	6480955	12-Nov-02
Method And Apparatus For Transmitting Data	US	09/216401	18-Dec-98	6747984	8-Jun-04
Method And Apparatus For Transmitting Data To A Node In A Distributed Data Processing System	US	09/679506	4-Oct-00	6570853	27-May-03
Method And Apparatus For Generating A Fibre Channel Compliant Frame	US	09/363130	28-Jul-99	6397360	28-May-02
Methods And Apparatus For Dynamic Version Transition Of Management Applications And Attached Subsystems	US	09/607691	30-Jun-00	6622302	16-Sep-03
Configuring And Monitoring Data Volumes In A Consolidated Storage Array Using One Storage Array To Configure The Other Storage Arrays	US	09/732003	7-Dec-00	6895485	17-May-05

TITLE	COUNTRY / REGION	APPLICATION NUMBER	APPLICATION DATE	PATENT NUMBER	ISSUE DATE
Data Structures Containing Sequence And Revision Number Metadata Used In Mass Storage Data Integrity-Assuring Technique	US	09/573135	17-May-00	6606629	12-Aug-03
Data Storage Access Through Switched Fabric	US	09/643210	22-Aug-00	6944152	13-Sep-05
Electrical Cable	US	09/546818	11-Apr-00	6346676	12-Feb-02
Piercing Pin Structure And Attachment For Higher Density Ribbon Cable	US	09/595100	16-Jun-00	6386901	14-May-02
System And Method For Efficient Initialization Of A Ring Network	US	09/031797	27-Feb-98	6081847	27-Jun-00
Configuration Verification, Recommendation, And Animation Method For A Disk Array In A Storage Area Network (SAN)	US	11/416537	3-May-06		
Multiple Instances Of Mapping Configurations In A Storage System Or Storage Appliance	US	11/633780	5-Dec-06		
Technique For Sharing Hot Spare Drives Among Multiple Subsystems	US	08/577311	22-Dec-95	5941994	24-Aug-99
Technique for Sharing Hot Spare Drives Among Multiple Subsystems	DE	963092200	17-Dec-96	69629444	15-Apr-04
Technique for Sharing Hot Spare Drives Among Multiple Subsystems	EP	963092200	17-Dec-96	780765	13-Aug-03
Technique for Sharing Hot Spare Drives Among Multiple Subsystems	FR	963092200	17-Dec-96	780765	13-Aug-03
Technique for Sharing Hot Spare Drives Among Multiple	GB	96309220	17-Dec-96	780765	13-Aug-03



TITLE	COUNTRY / REGION	APPLICATION NUMBER	APPLICATION DATE	PATENT NUMBER	ISSUE DATE
Subsystems					
Technique for Sharing Hot Spare Drives Among Multiple Subsystems	JP	8332421	12-Dec-96		
Technique for Sharing Hot Spare Drives Among Multiple Subsystems	KR	688761996	20-Dec-96	288020	02-Feb-01
Support For Direct Connect Disk Drives	US	08/721078	26-Sep-96	5908325	1-Jun-99
Methods And Apparatus For Locking Files Within A Clustered Storage Environment	US	08/773470	23-Dec-96	5933824	3-Aug-99
Methods And Apparatus For Locking Files Within A Clustered Storage Environment	PCT	PCT/US1997/022611	15-Dec-97		
Compact Ventilation Unit For Electronic Apparatus	US	08/770890	20-Dec-96	5772500	30-Jun-98
Test Mode For Multifunction PCI Device	US	08/940866	30-Sep-97	5905744	18-May-99
Method And Apparatus For Storage Of Multiple Host Storage Management Information On A Storage Subsystem	US	08/884707	30-Jun-97	5895493	20-Apr-99
Storage Of Multiple Host Storage Management Information	DE	989329461	29-Jun-98	69801824	26-Sep-01
Storage Of Multiple Host Storage Management Information	EP	989329461	29-Jun-98	993632	26-Sep-01

TITLE	COUNTRY / REGION	APPLICATION NUMBER	APPLICATION DATE	PATENT NUMBER	ISSUE DATE
Storage Of Multiple Host Storage Management Information	FR	989329461	29-Jun-98	993632	26-Sep-01
Storage Of Multiple Host Storage Management Information	GB	989329461	29-Jun-98	993632	26-Sep-01
Storage Of Multiple Host Storage Management Information	IT	989329461	29-Jun-98	993632	26-Sep-01
Storage Of Multiple Host Storage Management Information	JP	2000500590	04-Jan-00		
Fuel Cell Based Battery Backup Apparatus For Storage Subsystems	US	10/244575	16-Sept-02		