

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT4049399

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	RELEASE OF REEL 037847 FRAME 0843 (ABL)	
CONVEYING PARTY DATA		
Name		Execution Date
BANK OF AMERICA, N.A., AS ADMINISTRATIVE AGENT		09/07/2016
RECEIVING PARTY DATA		
Name:	DELL SOFTWARE INC.	
Street Address:	5 POLARIS WAY	
City:	ALISO VIEJO	
State/Country:	CALIFORNIA	
Postal Code:	92656	
Name:	DELL PRODUCTS L.P.	
Street Address:	ONE DELL WAY	
City:	ROUND ROCK	
State/Country:	TEXAS	
Postal Code:	78682	
Name:	WYSE TECHNOLOGY L.L.C.	
Street Address:	3471 NORTH FIRST ST.	
City:	SAN JOSE	
State/Country:	CALIFORNIA	
Postal Code:	95134-1801	
PROPERTY NUMBERS Total: 257		
Property Type	Number	
Patent Number:	9191432	
Patent Number:	9215198	
Patent Number:	9189516	
Patent Number:	9218031	
Patent Number:	9215241	
Patent Number:	9203762	
Patent Number:	9203853	
Application Number:	14929023	
Application Number:	14929022	
Application Number:	14928698	

PATENT

Property Type	Number
Application Number:	14929006
Application Number:	14928911
Application Number:	14928109
Application Number:	14928078
Application Number:	14930483
Application Number:	14930403
Application Number:	14929450
Application Number:	14930052
Application Number:	14930116
Application Number:	14929456
Application Number:	14929460
Application Number:	14930323
Application Number:	14929482
Application Number:	14931496
Application Number:	14931404
Application Number:	14931036
Application Number:	14931454
Application Number:	14931095
Application Number:	14932478
Application Number:	14932731
Application Number:	14932256
Application Number:	14932429
Application Number:	29544723
Application Number:	14933270
Application Number:	14933720
Application Number:	14934772
Application Number:	14934720
Application Number:	14936503
Application Number:	14935619
Application Number:	14936321
Application Number:	14936311
Application Number:	14936307
Application Number:	14936282
Application Number:	14936281
Application Number:	14937415
Application Number:	14937776
Application Number:	14937407
Application Number:	14937590

Property Type	Number
Application Number:	14938573
Application Number:	14938580
Application Number:	29545369
Application Number:	29545368
Application Number:	14939508
Application Number:	14941079
Application Number:	14941440
Application Number:	14940890
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Application Number:	14941202
Application Number:	14940628
Application Number:	14942662
Application Number:	14942776
Application Number:	14942335
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Application Number:	14942840
Application Number:	14943343
Application Number:	14943833
Application Number:	14943910
Application Number:	14944045
Application Number:	14945065
Application Number:	14944296
Application Number:	14944775
Application Number:	14946458
Application Number:	14946457
Application Number:	14946075
Application Number:	14946440
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Application Number:	14949513
Application Number:	14951010
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Application Number:	14951967
Application Number:	14952176
Application Number:	14952173
Application Number:	14952607

Property Type	Number
Application Number:	14952333
Application Number:	14952960
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Application Number:	14960566
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Application Number:	14963926
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Application Number:	14965186
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Property Type	Number
Application Number:	14981251
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Application Number:	14990048
Application Number:	14989963
Application Number:	14990241
Application Number:	14991865
Application Number:	14991665
Application Number:	14991737
Application Number:	14991019
Application Number:	14991643
Application Number:	14991567
Application Number:	14991646
Application Number:	14991641
Application Number:	14991637
Application Number:	14987698
Application Number:	14993013
Application Number:	14992145
Application Number:	14992411
Application Number:	14993059
Application Number:	14993894
Application Number:	14993828
Application Number:	14994772
Application Number:	14994765

Property Type	Number
Application Number:	14994735
Application Number:	14994726
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Application Number:	14994328
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Application Number:	14996036
Application Number:	14996133
Application Number:	14996608
Application Number:	14997023
Application Number:	14997169
Application Number:	14997814
Application Number:	14997755
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Application Number:	14997761
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Application Number:	15002339
Application Number:	15002151
Application Number:	15004294
Application Number:	15004608
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Application Number:	15006891
Application Number:	15007919
Application Number:	15008081
Application Number:	15007869
Application Number:	15007472
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Application Number:	15007695
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Application Number:	15009111
Application Number:	15008626
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Application Number:	15008602
Application Number:	15008592

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Application Number:	15008588
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Application Number:	15011008
Application Number:	15010469
Application Number:	15010540
Application Number:	15010533
Application Number:	15010322
Application Number:	15010523
Application Number:	15010835
Application Number:	15010309
Application Number:	15010290
Application Number:	15010885
Application Number:	15010960
Application Number:	15011977
Application Number:	15009559

CORRESPONDENCE DATA

Fax Number: (800)914-4240

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: 800-713-0755

Email: Michael.Violet@wolterskluwer.com

Correspondent Name: MICHAEL VIOLET

Address Line 1: 4400 EASTON COMMONS WAY

Address Line 2: SUITE 125

Address Line 4: COLUMBUS, OHIO 43219

NAME OF SUBMITTER:	JENNIFER RIEHL
SIGNATURE:	/Jennifer Riehl/
DATE SIGNED:	09/13/2016

Total Attachments: 18

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RECORDATION FORM COVER SHEET
PATENTS ONLY

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

1. Name of conveying party(ies)

Bank of America, N.A., as Administrative Agent

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance/Execution Date(s):

Execution Date(s) September 7, 2016

- ☐ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Joint Research Agreement
☐ Government Interest Assignment
☐ Executive Order 9424, Confirmatory License
☒ Other Release of Reel 037847 Frame 0843 (ABL)

2. Name and address of receiving party(ies)

Name: Dell Software Inc.

Internal Address: _____

Street Address: 5 Polaris Way

City: Aliso Viejo

State: CA

Country: USA

Zip: 92656

Additional name(s) & address(es) attached? ☒ Yes ☐ No

4. Application or patent number(s):

☐ This document is being filed together with a new application.

A. Patent Application No.(s)

14/929,023

B. Patent No.(s)

9191432

Additional numbers attached? ☒ Yes ☐ No

5. Name and address to whom correspondence concerning document should be mailed:

Name: Jennifer Riehl, Legal Assistant

Internal Address: Cahill Gordon & Reindel LLP

Street Address: 80 Pine Street

City: New York

State: NY Zip: 10005

Phone Number: (212) 701-3788

Docket Number: _____

Email Address: jrieht@cahill.com

6. Total number of applications and patents involved: 257

7. Total fee (37 CFR 1.21(h) & 3.41) \$ _____

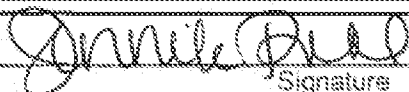
- ☐ Authorized to be charged to deposit account
☐ Enclosed
☐ None required (government interest not affecting title)

8. Payment Information

Deposit Account Number _____

Authorized User Name _____

9. Signature: _____



Signature

September 7, 2016

Date

Jennifer Riehl

Name of Person Signing

Total number of pages including cover sheet, attachments, and documents:

18

Documents to be recorded (including cover sheet) should be faxed to (571) 273-9148, or mailed to:
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O. Box 1450, Alexandria, V.A. 22313-1450

ITEM 2 (cont'd)
to Patents Recordation Form Cover Sheet
Release of Reel 037847 Frame 0843

Additional Receiving Parties

Entity	Address
Dell Products L.P.	One Dell Way Round Rock, TX 78682
Wyse Technology L.L.C	3471 North First St. San Jose, CA 95134-1801

**RELEASE OF SECURITY INTEREST IN PATENTS
(ABL)**

This RELEASE OF SECURITY INTEREST IN PATENTS (this "Release"), dated as of September 7, 2016 (the "Effective Date"), is made by Bank of America, N.A., in its capacity as Administrative Agent (the "Agent"), in favor of Dell Software Inc., a Delaware corporation, Dell Products L.P., a Texas limited partnership, and Wyse Technology L.L.C., a Delaware limited liability company (each a "Grantor" and collectively, the "Grantors").

WHEREAS, pursuant to that certain Collateral Agreement dated as of October 29, 2013, by and among the Agent, the Grantors and certain other parties thereto (as amended, amended and restated, or otherwise modified from time to time, the "Collateral Agreement"), the Grantors granted to the Agent, in its capacity as Administrative Agent, a security interest in and to certain collateral;

WHEREAS, pursuant to the Collateral Agreement, the Grantors executed and delivered a Supplemental Patent Security Agreement, dated as of February 12, 2016 (the "Patent Security Agreement"), for recordal with the United States Patent and Trademark Office;

WHEREAS, the Patent Security Agreement was recorded with the United States Patent and Trademark Office on February 18, 2016 at Reel/Frame 037847/0843;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Agent hereby agrees as follows:

1. Defined Terms. All capitalized terms used, but not otherwise defined herein, shall have the respective meanings ascribed in or otherwise referenced in the Collateral Agreement or the Patent Security Agreement, as applicable.
2. Release. The Agent, without representation or warranty of any kind, hereby releases, discharges, terminates and cancels all of its security interest in and to the Patent Collateral, including the patents and patent applications set forth in Schedule 1 attached hereto, arising under the Collateral Agreement and the Patent Security Agreement. If and to the extent that the Agent has acquired any right, title or interest in and to the Patent Collateral under the Patent Security Agreement, the Agent, without representation or warranty of any kind, hereby re-transfers, re-conveys and re-assigns such right, title or interest to the Grantors. The Agent hereby requests the Commissioner for Patents record this Release.
3. Termination. The Agent, without representation or warranty of any kind, terminates and cancels the Patent Security Agreement.
4. Further Assurances. The Agent agrees to take all further actions, and provide to the Grantors and their successors, assigns or other legal representatives, all such cooperation and assistance (including, without limitation, the execution and delivery of any and all documents or other instruments), reasonably requested by the Grantors, at the Grantors' sole cost and expense, to more fully and effectively effectuate the purposes of this Release.
5. Governing Law. This Release shall be governed exclusively under the laws of New York, without regard to conflicts of law or choice of law principles.

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IN WITNESS WHEREOF, the Agent has caused this Release to be executed by its duly authorized representative as of the Effective Date:

**BANK OF AMERICA, N.A., acting in its
capacity as Administrative Agent for the
Lenders**

By: 
Name: _____
Title: **Hance VanBeber
Sr. Vice President**

[Dell - ABL Patent Release]

.....**PATENT**.....
REEL: 040017 FRAME: 0378

SCHEDULE 1

Granted U.S. Patents:

	<u>Reg. No.</u>	<u>Title</u>	<u>Owner</u>
1.	9191432	Saas network-based backup system	Dell Products L.P.
2.	9215198	Efficient use of resources in message classification	Dell Software Inc.
3.	9189516	Using distinguishing properties to classify messages	Dell Software Inc.
4.	9218031	System and method for providing wireless power feedback in a wireless power delivery system	Dell Products L.P.
5.	9215241	Reputation-based threat protection	Dell Software Inc.
6.	9203762	Information handling system data center bridging features with defined application environments	Dell Products L.P.
7.	9203853	Cloud-based gateway security scanning	Dell Software Inc.

U.S. Patent Applications:

	<u>App. No.</u>	<u>Title</u>	<u>Owner</u>
1.	14/929023	System and Method to Use Common Addresses on Different Interfaces in a Management Controller without Conflict	Dell Products L.P.
2.	14/929022	System and Method for Pre-Operating System Memory Map Management to Minimize Operating System Failures	Dell Products L.P.
3.	14/928698	Data Storage Device Carrier System	Dell Products L.P.
4.	14/929006	System and Method for Powering a Wireless End Point in a Server Rack of a Data Center	Dell Products L.P.
5.	14/928911	Method and Mechanism for Mitigating Signal Attenuation in Printed Circuit Board Connections	Dell Products L.P.
6.	14/928109	REMOTE DESKTOP PROTOCOL CLIENT WITH VIRTUAL CHANNEL SUPPORT IMPLEMENTED IN A STANDARDS-BASED WEB BROWSER	Dell Products L.P.
7.	14/928078	PROVIDING AUDIO DATA FOR A REMOTE DESKTOP PROTOCOL IN A STANDARDS-BASED WEB BROWSER	Dell Products L.P.
8.	14/930483	Dual Mode USB and Serial Console Port	Dell Products L.P.
9.	14/930403	Carbon-Fiber Chassis of an Information Handling System	Dell Products L.P.

	<u>App. No.</u>	<u>Title</u>	<u>Owner</u>
10.	14/929450	System and Method for Automated On-Demand Creation of a Customized Software Application	Dell Products L.P.
11.	14/930,052	TOOL-LESS AIR BAFFLE	Dell Products L.P.
12.	14/930,116	SYSTEMS AND METHODS FOR BACK UP IN SCALE-OUT STORAGE AREA NETWORK	Dell Products L.P.
13.	14/929,456	Redundant PSU structure without OR-ing MOSFETs	Dell Products L.P.
14.	14/929460	Augmented content-based Classification through Communication Usage text enrichment technique	Dell Software Inc.
15.	14/930323	RUN-LENGTH ENCODED IMAGE DECOMPRESSOR FOR A REMOTE DESKTOP PROTOCOL CLIENT IN A STANDARDS-BASED WEB BROWSER	Dell Products L.P.
16.	14/929482	Context based log dimensions analysis (Re-submission for 104091 - Log Event and Performance Metrics Correlation)	Dell Software Inc.
17.	14/931496	SYSTEMS AND METHODS FOR REMOTELY RESETTING MANAGEMENT CONTROLLER VIA POWER OVER ETHERNET SWITCH	Dell Products L.P.
18.	14/931404	SYSTEMS AND METHODS FOR DYNAMIC WIRELESS CHARGING COMPENSATION	Dell Products L.P.
19.	14/931036	System and Method for Providing an Authentication Certificate for a Wireless Handheld Device a Data Center Environment	Dell Products L.P.
20.	14/931454	Agent managed container	Dell Software Inc.
21.	14/931095	Systems and Methods for Website Improvement	Dell Products L.P.
22.	14/932,478	Duty-Cycled Equalization	Dell Products L.P.
23.	14/932731	PROTECTING FILES AND FOLDERS ON A SHARED APPLICATION LAYER	Wyse Technology L.L.C.
24.	14/932,256	System and Method for Intercept of UEFI Block I/O Protocol Services for BIOS Based Hard Drive Encryption Support	Dell Products L.P.
25.	14/932429	FLEXIBLE ROLL-UP INFORMATION HANDLING SYSTEM	Dell Products L.P.
26.	29/544723	Information Handling System	Dell Products L.P.
27.	14/933270	System and Method of Transferring Data over Available Pins	Dell Products L.P.
28.	14/933,720	Dynamic allocation of queue depths for the virtual functions in a converged infrastructure	Dell Products L.P.

	<u>App. No.</u>	<u>Title</u>	<u>Owner</u>
29.	14/934772	Methods and Systems for Managing Performance and Power Utilization of a Processor Employing a Fully Multithreaded Load Threshold	Dell Products L.P.
30.	14/934720	Platform for Administration of Personal Health Information	Dell Software Inc.
31.	14/936503	SAAS NETWORK-BASED BACKUP SYSTEM	Dell Products L.P.
32.	14/935,619	SYSTEMS AND METHODS FOR PROVIDING A COMBINATION CONNECTOR ASSEMBLY IN AN INFORMATION HANDLING SYSTEM	Dell Products L.P.
33.	14/936321	System and Method for Providing Wireless Communications to a Boxed Server	Dell Products L.P.
34.	14/936311	System and Method for Provisioning a Powered Off Server in a Data Center	Dell Products L.P.
35.	14/936307	System and Method for Providing a Wireless Device Connection in a Server Rack of a Data Center	Dell Products L.P.
36.	14/936282	System and Method for Securing a Wireless Device Connection in a Server Rack of a Data Center	Dell Products L.P.
37.	14/936281	Data Analytics Model Selection through Champion Challenger Mechanism	Dell Products L.P.
38.	14/937415	System and Method for Providing Proxied Virtual Wireless End Points in a Server Rack of a Data Center	Dell Products L.P.
39.	14/937776	FIREWALL INFORMED BY WEB SERVER SECURITY POLICY IDENTIFYING AUTHORIZED RESOURCES AND HOSTS	Dell Software Inc.
40.	14/937407	Asynchronous Notification Including Parameter Values in Serial Advanced Technology Attachment Protocol	Dell Products L.P.
41.	14/937590	FIBRE CHANNEL GATEWAY SYSTEM	Dell Products L.P.
42.	14/938573	Using Distinguishing Properties To Classify Messages	Dell Products L.P.
43.	14/938580	Document Link Migration	Dell Software Inc.
44.	29/545369	Information Handling System Cabinet	Dell Products L.P.
45.	29/545368	Information Handling System Storage Device Carrier	Dell Products L.P.
46.	14/939508	Information Handling System Desktop Surface Display Touch Input Compensation	Dell Products L.P.
47.	14/941079	Diagnostic Method and Apparatus for a Tape Storage System	Dell Products L.P.
48.	14/941,440	Supplemental Storage Tray for Increasing Storage Capacity within an Information Handling System	Dell Products L.P.

	<u>App. No.</u>	<u>Title</u>	<u>Owner</u>
49.	14/940890	SYSTEMS AND METHODS FOR DATA STORAGE TIERING	Dell Products L.P.
50.	14/940481	Information Handling System Application Decentralized Workload Management	Dell Products L.P.
51.	14/941202	Network Communication Protocol Processing Optimization System	Dell Products L.P.
52.	14/940628	Information Handling System Physical Component Maintenance Through Near Field Communication Device Interaction	Dell Products L.P.
53.	14/942662	System and Method for Providing Wireless Power Feedback in a Wireless Power Delivery System	Dell Products L.P.
54.	14/942776	Method to automatically create Office 365 Groups using multifactor relationship data provided by users and systems.	Dell Software Inc.
55.	14/942335	Power Management System	Dell Products L.P.
56.	14/942330	Generic Rack Transportation Top Cap	Dell Products L.P.
57.	14942840	SECURELY PASSING USER AUTHENTICATION DATA BETWEEN A PRE-BOOT AUTHENTICATION ENVIRONMENT AND AN OPERATING SYSTEM	Dell Products L.P.
58.	14/943,343	SYSTEMS AND METHODS FOR ENABLING A SYSTEMS MANAGEMENT INTERFACE WITH AN ALTERNATE FRAME BUFFER	Dell Products L.P.
59.	14/943833	Wireless Mesh Network Repair System	Dell Products L.P.
60.	14/943,910	Mapped Device/PHY Maintaining System	Dell Products L.P.
61.	14944045	NATIVE CLIENT MULTIMEDIA REDIRECTION	Wyse Technology L.L.C.
62.	14/945065	System and Method for Controlling a Projector via a Passive Control Strip	Dell Products L.P.
63.	14944296	DETECTING MALIGN CODE IN UNUSED FIRMWARE MEMORY	Dell Products L.P.
64.	14/944775	In-Situ Tx Characterization for HSS SerDes and Redrivers	Dell Products L.P.
65.	14/946458	SYSTEMS AND METHODS FOR TRACKING OF CACHE SECTOR STATUS	Dell Products L.P.
66.	14/946457	Optimized Flow Rules Pipeline for Software Defined Networking Application	Dell Products L.P.
67.	14/946075	Simultaneous Power Control Among Multiple Devices per Context	Dell Products L.P.

	<u>App. No.</u>	<u>Title</u>	<u>Owner</u>
68.	14/946440	Data Storage Device Connector with Integrated Temperature Sensor	Dell Products L.P.
69.	14/947934	Systems And Methods For An Extranet Multicast Virtual Private Network In A Virtual Routing And Forwarding Based Customer Edge Device	Dell Products L.P.
70.	14/948,133	Resource Aware Classification System	Dell Software Inc.
71.	14/949,731	NET-BASED EMAIL FILTERING	Dell Products L.P.
72.	14/949513	SYSTEMS AND METHODS FOR BIOS UPDATE OPTIMIZATION	Dell Products L.P.
73.	14/951010	System And Method For Management Of Networking Monitoring Information	Dell Products L.P.
74.	14/950706	Method and Apparatus for Gross-Level User and Input Detection Using Similar or Dissimilar Camera Pair	Dell Products L.P.
75.	14/952250	SYSTEMS AND METHODS FOR A MULTI-RAIL VOLTAGE REGULATOR WITH CONFIGURABLE PHASE ALLOCATION	Dell Products L.P.
76.	14/951967	Video Manipulation for Privacy Enhancement	Dell Products L.P.
77.	14/952176	Information Handling System Port Fluidic Component Manager	Dell Products L.P.
78.	14/952173	Information Handling System Port Seal	Dell Products L.P.
79.	14/952607	MULTIPLE BACKLIGHT DISPLAY SYSTEM	Dell Products L.P.
80.	14/952333	PRE-BOOT AUTHENTICATION CREDENTIAL SHARING SYSTEM	Dell Products L.P.
81.	14952960	SWITCHING OF HOST NETWORK TRAFFIC THROUGH BASEBOARD MANAGEMENT CONTROLLER (BMC)	Dell Products L.P.
82.	14/954,938	Apparatus and Method for Enabling Fingerprint-Based Secure Access to a User-Authenticated Operational State of an Information Handling System	Dell Products L.P.
83.	14/954062	Information Handling System Folded Display Assembly	Dell Products L.P.
84.	14/954834	SYSTEM AND METHOD FOR DISPLAY STREAM COMPRESSION FOR REMOTE DESKTOP PROTOCOLS	Wyse Technology L.L.C.
85.	14955069	DRY POWER SUPPLY ASSEMBLY FOR IMMERSION-COOLED INFORMATION HANDLING SYSTEMS	Dell Products L.P.
86.	14/955,877	VIRTUAL RESOURCE BANK FOR LOCALIZED AND SELF DETERMINED ALLOCATION OF	Dell Products L.P.

	<u>App. No.</u>	<u>Title</u>	<u>Owner</u>
		RESOURCES	
87.	14/956298	Internet of Things Dynamic Data Loss Prevention	Dell Software Inc.
88.	14/955751	SELECTIVE PARTITION BASED REDIRECTION FOR MULTI-PARTITIONED USB DEVICES	Wyse Technology L.L.C.
89.	14/955977	System and Method for Managing Workloads and Hot-Swapping a Co-Processor of an Information Handling System	Dell Products L.P.
90.	14/955,462	Safety-compliant PSU fault diagnosis mechanism to reduce PSU field returns	Dell Products L.P.
91.	14/956,464	DETERMINING A RISK INDICATOR BASED ON CLASSIFYING DOCUMENTS USING A CLASSIFIER	Dell Software Inc.
92.	14/956899	KEYBOARD WITH USER CONFIGURABLE GRANULARITY SCALES FOR PRESSURE SENSITIVE KEYS	Dell Products L.P.
93.	14/957,337	Student Grouping And Communication System	Dell Products L.P.
94.	14/958,642	Storage Device Security System	Dell Products L.P.
95.	14/958414	DYNAMIC POWER SYSTEM ADJUSTMENT TO STORE ENERGY FOR POWER EXCURSIONS	Dell Products L.P.
96.	14/958058	Geo-tagged Beacons for Wi-Fi Performance Optimization	Dell Products L.P.
97.	14/958528	MULTI-CHASSIS LAG ACCESS NODE DETERMINATION SYSTEM	Dell Products L.P.
98.	14960043	DISTRIBUTED DATABASE DRIVER MIDDLEWARE	Dell Software Inc.
99.	14/959561	System and Method for Monitoring a Battery Status in a Server in a Data Center	Dell Products L.P.
100.	14/959599	System and Method for Modelling Time Series Data	Dell Products L.P.
101.	14/960/566	Reducing Videoconferencing Bandwidth Usage	Dell Software Inc.
102.	14/960554	METHOD AND SYSTEM FOR EFFICIENT REPLICATION OF FILES USING SHARED NULL MAPPINGS WHEN HAVING TRIM OPERATIONS ON FILES	Dell Products L.P.
103.	14/960556	METHOD AND SYSTEM FOR EXECUTION OF CLIENT-INITIATED OPERATIONS ON FILE HANDLES IN A DISTRIBUTED SERVER SYSTEM	Dell Products L.P.
104.	14/960596	Method and Apparatus for Predicting Mobile Device Wireless Link Quality of Service Requirements Along	Dell Products L.P.

	<u>App. No.</u>	<u>Title</u>	<u>Owner</u>
		a Predicted Path	
105.	14/960542	METHOD AND SYSTEM FOR RECONNECTING SERVER MESSAGE BLOCK (SMB) CLIENTS TO PERSISTENT FILE HANDLES	Dell Products L.P.
106.	14/960548	METHOD AND SYSTEM FOR EXECUTION OF DISCONNECTION FROM AND RECONNECTION TO PERSISTENT HANDLES	Dell Products L.P.
107.	14/960809	Information Handling System Encrypted Image Display Through Secondary Device	Dell Products L.P.
108.	14/963072	FORM FACTOR SWAPPABLE DC BATTERY BACK-UP	Dell Products L.P.
109.	14/962,211	USAGE-BASED MODIFICATION OF USER PRIVILEGES	Dell Software Inc.
110.	14/963443	Methods and Systems for Providing Network Attached Storage (NAS) Within a Manage	Dell Products L.P.
111.	14/964356	Methods for Managing Performance States in an Information Handling System	Dell Products L.P.
112.	14964027	REGISTERING NETWORK DEVICES USING KNOWN HOST DEVICES	Dell Software Inc.
113.	14/964502	A Method to Enable Deep Packet Inspection (DPI) in OpenFlow-based Software Defined Network (SDN)	Dell Products L.P.
114.	14/963,903	Methods And Systems For Improving Light Load Efficiency For Power Stages of Multi-Phase Voltage Regulator Circuits	Dell Products L.P.
115.	14/963926	System and Method for Minimizing Broadcast Communications When Allocating Network Addresses	Dell Products L.P.
116.	14/964,731	Dynamic gaze correction for video conferencing.	Dell Software Inc.
117.	14/965859	AUTOMATIC TUNNELS ROUTING LOOP ATTACK DEFENSE	Dell Software Inc.
118.	14/965186	Systems and Methods For Cooling Portable Information Handling Systems	Dell Products L.P.
119.	14/965866	REASSEMBLY FREE DEEP PACKET INSPECTION FOR PEER TO PEER NETWORKS	Dell Software Inc.
120.	14/967,256	System and Method for Real-Time Measurement-Based Election of Active Power Supply	Dell Products L.P.
121.	14/966595	Method for Semi-Supervised Learning Approach to Add Context to Malicious Events	Dell Products L.P.
122.	14/967259	SYSTEMS AND METHODS FOR TWO LAYER THREE DIMENSIONAL TORUS SWITCHED CONNECTIVITY DATACENTER TOPOLOGY	Dell Products L.P.
123.	14/968786	REPUTATION BASED THREAT PROTECTION	Dell Products L.P.

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124.	14/968037	RAID-6 FOR STORAGE SYSTEM EMPLOYING A HOT SPARE DRIVE	Dell Products L.P.
125.	14967431	MANAGING DEPENDENCIES FOR HUMAN INTERFACE INFRASTRUCTURE (HII) DEVICES	Dell Products L.P.
126.	14/968455	Printed document control with verified unique watermarks	Dell Software Inc.
127.	14968486	GATEWAY THAT ENABLES A BROWSER-BASED APPLICATION TO COMMUNICATE WITH A SERVER-SIDE APPLICATION USING A NON-BROWSER-COMPATIBLE PROTOCOL	Wyse Technology L.L.C.
128.	14/970186	SYSTEMS AND METHODS OF CONFIGURING MANAGED RESOURCES	Dell Software Inc.
129.	14/970,717	System and Method for RAID Management, Reallocation, and Restripping	Dell Products L.P.
130.	14/971274	CONNECTOR WITH STAGGERED ELECTRICAL PINS	Dell Products L.P.
131.	14971342	Method and System for Forming Compute Clusters Using Block Chains.	Dell Software Inc.
132.	14/970948	Information Handling System Dynamic Antenna Management	Dell Products L.P.
133.	14/971193	Aperiodic Routing to Mitigate Floquet Mode Resonances	Dell Products L.P.
134.	14/972,595	Systems and Methods for Insertion and Removal of an Information Handling Resource	Dell Products L.P.
135.	14/970048	Network Cache Deduplication Analytics Based Compute Cluster Load Balancer	Dell Products L.P.
136.	14/973,456	ZERO VOLTAGE SWITCHING FLYBACK CONVERTER	Dell Products L.P.
137.	14/943689	System and Method for Providing a Wireless Failover of a Management Connection in a Server Rack of a Data Center	Dell Products L.P.
138.	14/975625	TCP Traffic Priority Control based on TCP Window Adjustment in Bandwidth Management	Dell Software Inc.
139.	14/974646	System and Method for Production Testing of an Application	Dell Products L.P.
140.	14/975567	PLATFORM FOR ADOPTING SETTINGS TO SECURE A PROTECTED FILE	Dell Products L.P.
141.	14/975474	ENFORCEMENT MITIGATIONS FOR A PROTECTED FILE	Dell Products L.P.
142.	14/975,770	User Aware Digital Vision Correction	Dell Products L.P.
143.	62/270,575	HDD carrier with integrated liquid collection, isolation, and detection system	Dell Products L.P.
144.	62/270574	Liquid Flow Control algorithm for holding a desired server exhaust temperature using energy conservation	Dell Products L.P.

	<u>App. No.</u>	<u>Title</u>	<u>Owner</u>
		principles	
145.	62/270,571	Scalable Rackmount liquid to air heat exchanger for targeted heat rejection of rack-mount equipment	Dell Products L.P.
146.	62/270,564	Fluid Manifold with embedded heat exchanger system	Dell Products L.P.
147.	62/270,563	Modular Rack Liquid Framework and Distribution System	Dell Products L.P.
148.	14/976061	Multi-Function Information Handling System With Multi-Orientation Stand	Dell Products L.P.
149.	14/976023	Adaptive Information Handling System Rack Rail Mount	Dell Products L.P.
150.	14/976777	System and Method for Aggregating Communication and Control of Wireless End-Points in a Data Center	Dell Products L.P.
151.	14/976,652	A Centralized Language Management System Tool for Distributed System	Dell Software Inc.
152.	14/757625	SYSTEMS AND METHODS FOR ENABLING A HOST SYSTEM TO USE A NETWORK INTERFACE OF A MANAGEMENT CONTROLLER	Dell Products L.P.
153.	14980009	CONTEXT-AWARE DELEGATION ENGINE	Dell Software Inc.
154.	14/981031	MOBILE DEVICE MANAGEMENT DELEGATE FOR MANAGING ISOLATED DEVICES	Dell Products L.P.
155.	14/981299	CONTROLLING CONTENT MODIFICATIONS BY ENFORCING ONE OR MORE CONSTRAINT LINKS	Dell Software Inc.
156.	14/981251	DRIVE CARRIER COUPLING SYSTEM	Dell Products L.P.
157.	14/981232	COMPONENT CARRIER AND GUIDING SYSTEM FOR TUNABLE, ENHANCED CHASSIS AIRFLOW	Dell Products L.P.
158.	14/981156	PEER-TO-PEER WIRELESS CONTROLLER TOPOLOGY PROVISIONING SYSTEM	Dell Products L.P.
159.	14/982559	Electronic Device with Pivoting Display Assembly	Dell Products L.P.
160.	14/984724	Obtaining Device Drivers From an Out-of-Band Management Network	Dell Products L.P.
161.	14/985054	Runtime API Framework for Client-Server Communication	Dell Products L.P.
162.	14/984198	SYSTEMS AND METHODS FOR ZONE PAGE ALLOCATION FOR SHINGLED MEDIA RECORDING DISKS	Dell Products L.P.
163.	14/984226	DELIVERY OF EMAIL TO A MOBILE DEVICE	Dell Products L.P.

	<u>App. No.</u>	<u>Title</u>	<u>Owner</u>
164.	14/985,530	METHOD AND SYSTEM FOR MANAGING FLAT AND ROUTED CLIENTS IN A CLUSTER USING SINGLE TYPE OF VIPS	Dell Products L.P.
165.	14/985,654	METHOD AND SYSTEM FOR GENERATING OUT-OF-BAND NOTIFICATIONS OF CLIENT ACTIVITY IN A NETWORK ATTACHED STORAGE (NAS) DEVICE	Dell Products L.P.
166.	14/988495	SYSTEM AND METHOD FOR LAYER 3 PROXY ROUTING	Dell Products L.P.
167.	14989654	EMAIL RECOVERY VIA EMULATION AND INDEXING	Dell Software Inc.
168.	14989657	SMART EXCHANGE DATABASE INDEX	Dell Software Inc.
169.	14/989552	SYSTEMS AND METHODS FOR HARDWARE ARBITRATION OF A COMMUNICATIONS BUS	Dell Products L.P.
170.	14/989635	Systems and Methods for Optimizing Write Accesses in a Storage Array	Dell Products L.P.
171.	14/990499	SYSTEMS AND METHODS FOR DYNAMIC STORAGE ALLOCATION AMONG STORAGE SERVERS	Dell Products L.P.
172.	14/990453	SYSTEMS AND METHODS FOR OPTIMIZED UTILIZATION OF STORAGE RESOURCES BASED ON PERFORMANCE AND POWER CHARACTERISTICS	Dell Products L.P.
173.	14/990048	Workflow to Distribute Content Across a Plurality of Social Media Platforms	Dell Products L.P.
174.	14/989963	Workflow to Automatically Generate Metadata for New and Updated Products and Augment Short Message System Content	Dell Products L.P.
175.	14/990241	Information Handling System Utilizing a Smart Logo to Provide Properties of the Information Handling System	Dell Products L.P.
176.	14/991,865	Method for automatic mapping out of the faulty device/drivers during system boot-up	Dell Products L.P.
177.	14/991665	METHODS AND SYSTEMS FOR FACILITATING A REMOTE DESKTOP SESSION UTILIZING A REMOTE DESKTOP CLIENT COMMON INTERFACE	Dell Products L.P.
178.	14/991737	Methods And Systems For Conducting A Remote Desktop Session Via HTML That Supports A 2D Canvas And Dynamic Drawing	Dell Products L.P.
179.	14991019	DIGITAL WATERMARKING FOR SECURING REMOTE DISPLAY PROTOCOL OUTPUT	Dell Products L.P.
180.	14/991643	Retractable Docking System	Dell Products L.P.

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181.	14/991567	Managing Persistent Cookies on a Corporate Web Portal	Dell Software Inc.
182.	14/991646	Systems and Methods for Security Configuration	Dell Products L.P.
183.	14/991641	Systems and Methods for Rule Quality Estimation	Dell Products L.P.
184.	14/991637	Systems and Methods for Providing a Man-in-the-Middle Proxy	Dell Products L.P.
185.	14/987698	FAST IDENTIFICATION OF CONTENT	Dell Products L.P.
186.	14/993,013	MITIGATING PREMATURE WEAR OUT OF A RECHARGEABLE BATTERY	Dell Products L.P.
187.	14/992145	User Interface for Automating Sales Training Activities	Dell Products L.P.
188.	14/992,411	SYSTEMS AND METHODS FOR MANAGEMENT CONTROLLER MANAGEMENT OF KEY ENCRYPTION KEY	Dell Products L.P.
189.	14/993059	Managing Infectious Messages As Identified By An Attachment	Dell Products L.P.
190.	14/993894	Off-Host Authentication System	Dell Products L.P.
191.	14/993828	EMI Testing Deviation Correction System	Dell Products L.P.
192.	14/994772	Edge to Edge Touch Screen	Dell Products L.P.
193.	14/994765	System and Method for Providing Confidence Scores in a Persistent Framework	Dell Products L.P.
194.	14/994,735	System and Method for Providing an Authentication Agent in a Persistent Authentication Framework	Dell Products L.P.
195.	14/994726	System and Method for Providing an Authentication Engine in a Persistent Authentication Framework	Dell Products L.P.
196.	14/994723	System and Method for Providing Persistent Authentication in an Information Handling System	Dell Products L.P.
197.	14/994328	Temporary Disposable Portable Identifier	Dell Software Inc.
198.	14995071	SYNCHRONOUS POWER BURST FOR SYSTEM TURBO	Dell Products L.P.
199.	14995033	FREE DEVICE PLACEMENT FOR WIRELESS CHARGING	Dell Products L.P.
200.	62/238579	Managing Persistent Cookies on a Corporate Web Portal	Dell Products L.P.
201.	14/996036	User Based Stateless IPv6 RA-Guard	Dell Software Inc.
202.	14/996133	Dynamic DNS Destination Selection	Dell Software Inc.

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203.	14/996,608	Object Deduplication And Application Aware Snapshots	Dell Products L.P.
204.	14/997023	Gaming Keyboard And Related Methods	Dell Products L.P.
205.	14/997,169	SYSTEMS AND METHODS FOR PROACTIVELY RECOMMENDING INPUT/OUTPUT REDIRECTION USING MANAGEMENT CONTROLLER	Dell Products L.P.
206.	14/997,814	SYSTEM AND METHOD FOR SUPPORT OF NON-VOLATILE MEMORY ON A STANDARD DDR MEMORY CHANNEL	Dell Products L.P.
207.	14/997755	Enterprise Messaging System Using an Optimized Queueing Model	Dell Products L.P.
208.	14/997763	System and Method for Prediction of Future Threat Actions	Dell Products L.P.
209.	14/997761	System and Method for Attribution of Actors to Indicators of Threats to a Computer System and Prediction of Future Threat Actions	Dell Products L.P.
210.	15000867	DELAYING ONE OR MORE SEARCHES TO CAUSE MULTIPLE SEARCHES TO LOAD AND EVALUATE SEGMENTS TOGETHER	Dell Software Inc.
211.	15/002,339	Proactive Dynamic Peak Power Limiting	Dell Products L.P.
212.	15/002151	CHANGING AIR FLOW DIRECTION ON AIR-COOLED ELECTRONIC DEVICES	Dell Products L.P.
213.	15/004294	SYSTEMS AND METHODS FOR AUTOMATIC DETECTION AND CONFIGURATION OF VOLTAGE REGULATOR PHASES IN A MULTI-RAIL VOLTAGE REGULATOR	Dell Products L.P.
214.	15/004608	Storage Device Failure Recovery System	Dell Products L.P.
215.	15005846	OPTIMIZER MODULE IN HIGH LOAD CLIENT/SERVER SYSTEMS	Dell Software Inc.
216.	15005840	MULTIDIMENSIONAL SYNOPSIS GENERATION	Dell Software Inc.
217.	15/006,875	Privacy Enabled Mobile Device Identification for BYOD policies.	Dell Software Inc.
218.	15/006,891	Identifying common configurations in distributed environments with memorable hash names	Dell Software Inc.
219.	15/007,919	CATEGORIZING CAPTURED IMAGES FOR SUBSEQUENT SEARCH	Dell Software Inc.
220.	15/008,081	RECOVERING A SPECIFIED SET OF DOCUMENTS FROM A DATABASE BACKUP	Dell Software Inc.
221.	15/007869	OFF-HOST AUTHENTICATION SYSTEM	Dell Products L.P.

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222.	15/007472	USING MULTICASTING TO CONCURRENTLY IMAGE MULTIPLE CLIENT DEVICES	Dell Products L.P.
223.	15/007749	System and Method for Special Event High Volume Commerce Experience and Deals Management	Dell Products L.P.
224.	15/007695	Database Report Offload Server	Dell Products L.P.
225.	15/007992	METHODS AND SYSTEMS FOR NORMALIZING A READ-WRITE CACHE ALLOCATION POOL FOR VIRTUAL DESKTOP INFRASTRUCTURE WORKLOADS	Dell Products L.P.
226.	15/008558	POWER MONITORING CALIBRATION TO A TARGET PERFORMANCE LEVEL	Dell Products L.P.
227.	15/009111	MULTI-USER PEER-TO-PEER COLLABORATION SYSTEM AND METHOD	Dell Products L.P.
228.	15/008626	Information Handling System Port Power Management and Cable Detect	Dell Products L.P.
229.	15/008612	Information Handling System Reversible Charge Port and Magnetic Charge Connector	Dell Products L.P.
230.	15/008602	Information Handling System Multiple Port Power Source Management	Dell Products L.P.
231.	15/008592	Information Handling System Multiport Power Management	Dell Products L.P.
232.	15/008588	Information Handling System External Adapter and Battery Source	Dell Products L.P.
233.	15/008581	Information Handling System External Adapter and Battery Source	Dell Products L.P.
234.	15/000536	Enhanced Convective Cooling System	Dell Products L.P.
235.	15/009,617	READ-ONLY FILE SYSTEM FOR TESTING DE-DUPLICATION	Dell Software Inc.
236.	29/553211	Information Handling System Housing	Dell Products L.P.
237.	15/011087	Information Handling System Performance Optimization System	Dell Products L.P.
238.	15/011008	IHS Component Cooling System	Dell Products L.P.
239.	15/010469	DYNAMIC CAPACITY EXPANSION OF RAID VOLUMES	Dell Products L.P.
240.	15/010540	Information Handling System to Utilize Multiple Parameters to Adjust the Behavior of a Live System	Dell Products L.P.
241.	15/010533	Information Handling System to Alter Results for a Query Based on Strategic Inference	Dell Products L.P.
242.	15/010322	Information Handling System Secure Dock	Dell Products L.P.

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243.	15/010,523	Information Handling System to Calculate Probabilistic Strategies for a Search Query	Dell Products L.P.
244.	15/010835	Carbon Fiber Information Handling System Housing and Process for Manufacture	Dell Products L.P.
245.	15/010309	Information Handling System Automated Wireless Pairing of Peripheral Devices	Dell Products L.P.
246.	15/010,290	METHOD AND SYSTEM FOR SYNCHRONIZATION AND DISTRIBUTION OF CONFIGURATION CROSS CLUSTER WITHOUT BLOCKING	Dell Products L.P.
247.	15/010885	FAN CHARACTERIZATION AND CONTROL SYSTEM	Dell Products L.P.
248.	15/010960	Risk and Value based information Classification system.	Dell Software Inc.
249.	15/011977	SELF-HEALING OF LAYER METADATA WITHIN A LAYERING SYSTEM	Dell Products L.P.
250.	15/009559	N-NODE SYSTEMS AND METHODS FOR LINK AGGREGATION GROUPS (LAG)	Dell Products L.P.