PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4051380

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	RELEASE OF REEL 036502 FRAME 0237 (TL)

CONVEYING PARTY DATA

Name	Execution Date
BANK OF AMERICA, N.A., AS COLLATERAL 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: 205

Property Type	Number
Patent Number:	9047272
Patent Number:	9071993
Patent Number:	9075804
Patent Number:	9094365
Application Number:	14704710
Application Number:	14704657
Application Number:	14704722
Application Number:	14705878
Application Number:	14705097
Application Number:	14706060
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PATENT

Property Type	Number
Application Number:	14706639
Application Number:	14706184
Application Number:	14706803
Application Number:	14706416
Application Number:	14707397
Application Number:	14708110
Application Number:	14708646
Application Number:	14708420
Application Number:	14708417
Application Number:	14709882
Application Number:	14710083
Application Number:	14710903
Application Number:	29526997
Application Number:	29526989
Application Number:	14714033
Application Number:	14713443
Application Number:	14715260
Application Number:	14715235
Application Number:	14715838
Application Number:	14716332
Application Number:	14717469
Application Number:	14717554
Application Number:	29527725
Application Number:	14719256
Application Number:	14719248
Application Number:	14718804
Application Number:	14719224
Application Number:	14718724
Application Number:	14718767
Application Number:	14718305
Application Number:	14719121
Application Number:	14718339
Application Number:	29527900
Application Number:	14720167
Application Number:	14719554
Application Number:	14722040
Application Number:	14721735
Application Number:	14722055

Property Type	Number
Application Number:	14722064
Application Number:	14722125
Application Number:	14722914
Application Number:	14722854
Application Number:	14724768
Application Number:	14724626
Application Number:	14724481
Application Number:	14723686
Application Number:	14723821
Application Number:	14725620
Application Number:	14725608
Application Number:	14725347
Application Number:	14726036
Application Number:	14725778
Application Number:	14726925
Application Number:	29528806
Application Number:	14726971
Application Number:	14727784
Application Number:	14728395
Application Number:	14729477
Application Number:	14729878
Application Number:	14729801
Application Number:	14729558
Application Number:	14731283
Application Number:	14731278
Application Number:	14731271
Application Number:	14731252
Application Number:	14731134
Application Number:	14732255
Application Number:	14732504
Application Number:	14732375
Application Number:	14733768
Application Number:	14734549
Application Number:	14735060
Application Number:	14734508
Application Number:	14734453
Application Number:	14735190
Application Number:	14736100

Property Type	Number
Application Number:	14736967
Application Number:	14737326
Application Number:	14737292
Application Number:	14737329
Application Number:	14738430
Application Number:	14737842
Application Number:	14738087
Application Number:	14739519
Application Number:	14739709
Application Number:	14741215
Application Number:	14740406
Application Number:	14741125
Application Number:	14741021
Application Number:	14742235
Application Number:	14742253
Application Number:	14742239
Application Number:	14742092
Application Number:	14742124
Application Number:	14742191
Application Number:	14742148
Application Number:	14743454
Application Number:	14746086
Application Number:	14746418
Application Number:	14746318
Application Number:	14746258
Application Number:	14747860
Application Number:	14747918
Application Number:	14747827
Application Number:	14747994
Application Number:	14747947
Application Number:	14747801
Application Number:	14748189
Application Number:	14748193
Application Number:	14748199
Application Number:	14748201
Application Number:	14747393
Application Number:	14749332
Application Number:	14750789

Property Type	Number
Application Number:	14749998
Application Number:	14749706
Application Number:	14750764
Application Number:	14750822
Application Number:	14751494
Application Number:	14754970
Application Number:	14755592
Application Number:	14755921
Application Number:	14755973
Application Number:	14788002
Application Number:	14755284
Application Number:	14755325
Application Number:	14789855
Application Number:	14789849
Application Number:	29532035
Application Number:	14789823
Application Number:	14789847
Application Number:	14789852
Application Number:	14791069
Application Number:	14790975
Application Number:	14792083
Application Number:	14792021
Application Number:	14793447
Application Number:	14793126
Application Number:	14795446
Application Number:	14797010
Application Number:	14796828
Application Number:	14796864
Application Number:	14796096
Application Number:	14796058
Application Number:	14798022
Application Number:	14799005
Application Number:	14800167
Application Number:	14799789
Application Number:	14801623
Application Number:	14802858
Application Number:	14802434
Application Number:	14802495

Property Type	Number
Application Number:	14802781
Application Number:	14802841
Application Number:	14802847
Application Number:	14804317
Application Number:	14803709
Application Number:	14803817
Application Number:	14806072
Application Number:	14806158
Application Number:	14806638
Application Number:	14805670
Application Number:	14807668
Application Number:	14807621
Application Number:	14808771
Application Number:	14808184
Application Number:	14808925
Application Number:	14809915
Application Number:	14809956
Application Number:	14810096
Application Number:	14811419
Application Number:	14810816
Application Number:	14810694
Application Number:	14811501
Application Number:	14812067
Application Number:	14812296
Application Number:	14812823
Application Number:	14812572
Application Number:	14812642
Application Number:	14811968
Application Number:	14812488
Application Number:	14814275
Application Number:	14814199
Application Number:	14813309
Application Number:	14814006
Application Number:	14813252
Application Number:	14814143
Application Number:	14815755
Application Number:	14815582
Application Number:	14815221

Property Type	Number
Application Number:	14815866
Application Number:	14815840
Application Number:	14816031
Application Number:	14816893
Application Number:	14795781

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.

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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:	09/14/2016	

Total Attachments: 14

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ITEM 2 (cont'd) to Patents Recordation Form Cover Sheet Release of Reel 036502 Frame 0237

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 (Term Loan)

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 Collateral 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 Collateral 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 August 25, 2015 (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 August 27, 2015 at Reel/Frame 036502/0237;

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

- 1. <u>Defined Terms</u>. 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 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. <u>Termination</u>. The Agent, without representation or warranty of any kind, terminates and cancels the Patent Security Agreement.
- 4. <u>Further Assurances</u>. The Agent agrees to take all further actions, and provide to the Grantors and its 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. <u>Governing Law</u>. 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 Collateral Agent for the Lenders

By:____ Name: Title:

History Pennell Vice President

[Dell - Term Patent Release]

SCHEDULE 1

Granted U.S. Patents:

	Title	Filing Date	Patent	Owner
			Number	
1.	SYSTEM AND METHODS FOR INDEX SELECTION IN	6/2/2015	9047272	Dell Software
	COLLECTIONS OF DATA			Inc.
2.	CENTRALIZED WIRELESS LAN LOAD BALANCING	6/30/2015	9071993	Dell Software
				Inc.
3.	ON-THE FLY PATTERN RECOGNITION WITH	7/7/2015	9075804	Dell Software
	CONFIGURABLE BOUNDS			Inc.
4.	METHOD AND APPARATUS FOR RESOURCE LOCATOR	7/28/2015	9094365	Dell Software
	IDENTIFIER REWRITE			Inc.

U.S. Patent Applications:

	Title	Filing Date	Application Number	Owner
1.	I2C BUS PRIORITY ALERT SYSTEM	5/5/2015		Dell Products L.P.
2.	SOFTWARE-DEFINED- NETWORKING (SDN) ENABLING OPERATING-SYSTEM CONTAINERS FOR REAL-TIME APPLICATION TRAFFIC FLOW IMPROVEMENT	5/5/2015	14/704657	Dell Products L.P.
3.	COMMUNICATION TRANSMISSION SYSTEM FOR COMMUNICATION PROTOCOL FAILURES	5/5/2015	14/704722	Dell Products L.P.
4.	DEVICE ASSET TRACKING AND SERVICE DESK USING AN EXTERNAL MANAGEMENT SYSTEM AS A DATA SOURCE	5/6/2015	l ′	Dell Software Inc.
5.	SECURITY BREACH PREDICTION BASED ON EMOTIONAL ANALYSIS	5/6/2015	14/705097	Dell Products L.P.
6.	FOR A WORKLOAD	5/7/2015	14/706060	Dell Software Inc.
7.	IMPROVED PERFORMANCE OF STORAGE CONTROLLERS FOR APPLICATIONS WITH VARYING ACCESS PATTERNS IN INFORMATION HANDLING SYSTEMS	5/7/2015		Dell Products L.P.
8.	WATER-BLOCK THERMAL DAMPING SYSTEM	5/7/2015	l	Dell Products L.P.
9.	SYSTEMS AND METHODS TO IMPROVE READ/WRITE PERFORMANCE IN OBJECT STORAGE APPLICATIONS	5/7/2015		Dell Products L.P.
10.	SYSTEM AND METHOD FOR SELF-HEALING BASIC INPUT/OUTPUT SYSTEM BOOT IMAGE AND SECURE RECOVERY	5/7/2015		Dell Products L.P.
11.	SYSTEM AND METHOD FOR OPTIMIZING SYSTEM MEMORY AND IN-PUT/OUTPUT OPERATIONS MEMORY	5/8/2015		Dell Products L.P.
12.	TWO STAGE MEMORY ALLOCATION USING A CACHE	5/8/2015	14/708110	Dell Software Inc.
13.	REDUNDANT STORAGE ENCLOSURE PROCESSOR (SEP) IMPLEMENTATION FOR USE IN SERIAL ATTACHED SCSI (SAS) ENVIRONMENT	5/11/2015		Dell Products L.P.
14.	INFORMATION HANDLING SYSTEM DIFFERENTIAL	5/11/2015	14/708420	Dell Products

[Schedule 1 to Release of Security Interest in Patents]

PATENT

	Title	Filing Date	Application Number	Owner
	SIGNALING VARIABLE BANDWIDTH INTERFACE			L.P.
15.	SYSTEMS AND METHODS FOR PROVIDING SERVICE AND SUPPORT TO COMPUTING DEVICES	5/11/2015	14708417	Dell Products L.P.
16.	INFORMATION HANDLING SYSTEM LI- CENSE MANAGEMENT THROUGH NFC	5/12/2015	14/709882	Dell Products L.P.
17.	METHOD AND APPARATUS TO PERFORM NATIVE DISTRIBUTED ANALYTICS USING METADATA ENCODED DECISION ENGINE IN REAL TIME	5/12/2015	14/710083	Dell Software Inc.
18.	MECHANISMS TO IDENTIFY MISMATCHES IN LAYER 3 CONFIGURATION IN A NETWORK	5/13/2015	14/710903	Dell Products L.P.
19.	INFORMATION HANDLING SYSTEM	5/14/2015	29/526997	Dell Products L.P.
20.	INFORMATION HANDLING SYSTEM	5/14/2015	29/526989	Dell Products L.P.
	METHOD AND SYSTEM FOR ADAPTING A DISPLAY BASED ON INPUT FROM AN IRIS CAMERA	5/15/2015	14/714033	Dell Products L.P.
22.	SYSTEMS AND METHODS FOR RAID STORAGE CONFIGURATION USING HETEROGENEOUS PHYSICAL DISK (PD) SET UP	5/15/2015		Dell Products L.P.
1	SHUTDOWN RESPONSE SYSTEM	5/18/2015		Dell Products L.P.
24.	CONGESTION NOTIFICATION SYSTEM	5/18/2015		Dell Products L.P.
25.	VIRTUAL DISK DRIVE SYSTEM AND METHOD	5/19/2015		Dell Products L.P.
1	SYSTEM AND METHOD FOR PROVIDING MULTI- DIMENSIONAL POWER SUPPLY EFFICIENCY PROFILES	5/19/2015		Dell Products L.P.
	SYSTEMS AND METHODS OF DYNAMIC MIMO ANTENNA CONFIGURATION AND/OR RECONFIGURATION FOR PORTABLE INFORMATION HANDLING SYSTEMS	5/20/2015	l	Dell Products L.P.
28.	SYSTEMS AND METHODS FOR PROVIDING AUTOMATIC SYSTEM STOP AND BOOT-TO-SERVICE OS FOR FORENSICS ANALYSIS	5/20/2015		Dell Products L.P.
29.	INFORMATION HANDLING SYSTEM HOUSING	5/21/2015		Dell Products L.P.
30.	A SYSTEM AND METHOD OF PROVIDING OR EXECUTING LAYERED RESOURCES	5/21/2015		Dell Products L.P.
1	A SYSTEM AND METHOD OF CREATING A LAYERED RESOURCE	5/21/2015	14/719248	Dell Products L.P.
32.	SYSTEM AND METHOD FOR AGGLOMERATIVE CLUSTERING	5/21/2015	14/718804	Dell Software Inc.
1	PROCESSING UNKNOWN OR UNEXPECTED PROPERTIES ENCOUNTERED DURING MIGRATION OR ARCHIVING OPERATIONS	5/21/2015	14/719224	Dell Software Inc.
	SYSTEM AND METHOD FOR LIVE MIGRATION OF REMOTE DESKTOP SESSION HOST SESSIONS WITHOUT DATA LOSS	5/21/2015		Dell Products L.P.
1	SYSTEM AND METHOD FOR ADJUSTING COOLING FAN CONTROL SETTINGS BASED ON IDENTIFICATION OF A MODULE	5/21/2015		Dell Products L.P.
36.		5/21/2015	14718305	Dell Products

	Title	Filing Date	Application Number	Owner
	ETHERNET CONTROLLER			L.P.
37.	METHOD FOR DETERMINING PREDICTIVE RESPONSE TIME ACROSS ENTERPRISE COMMUNICATION SYSTEMS	5/21/2015	14/719121	Dell Software Inc.
38.	SYSTEM AND METHOD FOR COPYING DIRECTORY STRUCTURES	5/21/2015		Dell Products L.P.
39.	INFORMATION HANDLING SYSTEM HOUSING	5/22/2015	29/527900	Dell Products L.P.
40.	PROCESSOR LOADING SYSTEM	5/22/2015	14/720167	Dell Products L.P.
41.	SYSTEM AND METHOD FOR RENDERING VIDEO DATA	5/22/2015	14719554	Dell Products L.P.
42.	DISTRIBUTED CACHE FOR STATE TRANSFER OPERATIONS	5/26/2015	14/722040	Dell Products L.P.
43.	SYSTEMS AND METHODS FOR MANAGING TELECONFERENCE PARTICIPANT MUTE STATE	5/26/2015	14/721,735	Dell Products L.P.
44.	REDUCING TRANSMISSION PATHWAY LENGTHS WITHIN A DISTRIBUTED NETWORK	5/26/2015	14/722055	Dell Software Inc.
45.	SECURING INTERNET OF THINGS COMMUNICATIONS ACROSS MULTIPLE VENDORS	5/26/2015	14/722064	Dell Software Inc.
46.	SYSTEM AND METHOD FOR ADAPTIVE PATHS LOCATOR FOR VIRTUAL NETWORK FUNCTION LINKS	5/26/2015		Dell Software Inc.
47.	DATA FINGERPRINT STRENGTHENING	5/27/2015	14/722,914	Dell Software Inc.
48.	CONTENT-BASED ENCRYPTION KEYS	5/27/2015	14/722,854	Dell Software Inc.
49.	PREVENTING DAMAGE TO STORAGE DEVICES WITHIN A STORAGE SYSTEM DUE TO MOVEMENT OF THE STORAGE SYSTEM	5/28/2015		Dell Products L.P.
50.	METHOD FOR REDUCING EXECUTION JITTER IN MULTI- CORE PROCESSORS WITHIN AN INFORMATION HANDLING SYSTEM	5/28/2015		Dell Products L.P.
51.	SYSTEMS AND METHODS FOR SMART DIAGNOSIS USING HOSTED RESOURCES WITH INTELLIGENT ALTERING OF BOOT ORDER	5/28/2015		Dell Products L.P.
52.	POWER MANAGEMENT COMPENSATION FOR SYSTEM WITH OLED DISPLAY (RESUBMIT 103872)	5/28/2015	14723686	Dell Products L.P.
53.	METHOD FOR INTERCHANGEABLE IO MODULES WITH INDIVIDUAL AND SHARED PERSONALITIES	5/28/2015	14723821	Dell Products L.P.
54.	SYSTEM AND METHOD FOR AUTOMATIC DOCUMENT CLASSIFICATION AND GROUPING BASED ON DOCUMENT TOPIC	5/29/2015	14/725620	Dell Software Inc.
55.	SYSTEM AND METHOD FOR CACHE RESERVATION IN AN INFORMATION HANDLING SYSTEM	5/29/2015	14/725608	Dell Products L.P.
56.	METHODS AND SYSTEMS FOR OBFUSCATING DATA AND COMPUTATIONS DEFINED IN A SECURE DISTRIBUTED TRANSACTION LEDGER	5/29/2015	14/725347	Dell Products L.P.
57.	EVENT-BASED POWER PROVISIONING SYSTEM	5/29/2015	14/726036	Dell Products L.P.
58.	MODEL BASED SYSTEM AND METHODS TO GENERATE END-TO-END DEPENDENCY GRAPH IN MULTI-LAYER NETWORK FUNCTION VIRTUALIZATION MONITORING	5/29/2015	· · · · · · · · · · · · · · · · · · ·	Dell Software Inc.

	Title	Filing Date	Application Number	Owner
	SYSTEMS			
59.	WAVEGUIDE WITH PORTS FOR NEAR FIELD COMMUNICATION	6/1/2015	14/726,925	Dell Products L.P.
60.	DISPLAY DEVICE	6/1/2015	29/528806	Dell Products L.P.
61.	METHOD AND APPARATUS TO EXTRAPOLATE SARCASM AND IRONY USING MULTI-DIMENSIONAL MACHINE LEARNING BASED LINGUISTIC ANALYSIS	6/1/2015	14726971	Dell Software Inc.
62.	SYSTEMS AND METHODS FOR EXPORTING DIAGNOSTIC DATA AND SECURING PRIVILEGES IN A SERVICE OPERATING SYSTEM	6/1/2015	14727784	Dell Products L.P.
63.	CLICKPAD AND INFORMATION HANDLING SYSTEM INCLUDING SAME	6/2/2015	14/728395	Dell Products L.P.
64.	SYSTEMS AND METHODS FOR OPTIMIZING LAYER THREE ROUTING IN AN INFORMATION HANDLING SYSTEM	6/3/2015	14/729477	Dell Products L.P.
65.	SYSTEM AND METHOD FOR MANAGEMENT OF CACHE CONFIGURATION	6/3/2015	14/729878	Dell Products L.P.
66.	BATTERY WITH IMPROVED DISCHARGE UTILIZATION	6/3/2015	14/729801	Dell Products L.P.
	AUTOMATIC TUNING FOR A MEMORY VOLTAGE REGULATOR	6/3/2015		Dell Products L.P.
68.	DETERMINE CONFIDENCE OF MAIL ARCHIVE OWNERSHIP FROM SENDERS IN "SENT ITEMS" FOLDER	6/4/2015	14/731283	Dell Software Inc.
69.	MIGRATE NICKNAME CACHE FOR EMAIL SYSTEMS AND DEVICES	6/4/2015	14/731278	Dell Software Inc.
	MIGRATION ENHANCED BY PRESENCE, INSTANT MESSAGING, AND LAST LOG-ON TIME	6/4/2015	I	Dell Software Inc.
	SELECTIVELY SUPPRESS OR THROTTLE MIGRATION OF DATA ACROSS WAN CONNECTIONS	6/4/2015	I	Dell Software Inc.
	SYSTEMS AND METHODS FOR MONITORING A PRIMARY OPERATING SYSTEM (OS) AND/OR MIGRATING DATA USING AN OS HYPERVISOR	6/4/2015		Dell Products L.P.
73.	SYSTEM AND METHOD FOR CONFIGURATION OF LINK AGGREGATION GROUPS	6/5/2015		Dell Products L.P.
74.	DEFERRED CONFIGURATION OR INSTRUCTION EXECUTION USING A SECURE DISTRIBUTED TRANSACTION LEDGER	6/5/2015		Dell Products L.P.
75.	SYSTEM AND METHOD FOR MANAGING RAID STORAGE SYSTEM HAVING A HOT SPARE DRIVE	6/5/2015		Dell Products L.P.
76.	NETWORK INTERFACE AND DETECTION MODULE TO ENABLE NETWORK COMMUNICATION WITHIN INFORMATION HANDLING SYSTEMS	6/8/2015	14/733768	Dell Products L.P.
77.	DYNAMIC NETWORK LOAD REBALANCING	6/9/2015	14/734549	Dell Products L.P.
1	SYSTEMS AND METHODS FOR DETERMINING EMOTIONS BASED ON USER GESTURES	6/9/2015	14/735060	Dell Products L.P.
	SYSTEMS AND METHODS TO CONTROL TRANSMIT POWER AND SPECIFIC ABSORPTION RATE (SAR) FOR WIRELESS DEVICES	6/9/2015	14/734508	Dell Products L.P.
80.	SYSTEMS AND METHODS FOR CONTROL- LING RADIO TRANSMIT POWER FOR INFORMATION HANDLING	6/9/2015	14/734453	Dell Products L.P.

	Title	Filing Date	Application Number	Owner
	SYSTEMS BASED ON SYSTEM SPECIFIC RF PARAMETERS			
81.	OUT-OF-BAND (OOB) REAL- TIME INVENTORY AND CONFIGURATION OF ORIGINAL EQUIPMENT MANUFACTURER (OEM) DEVICES USING ADVANCED CONFIGURATION AND POWER INTERFACE (ACPI) AND UNIFIED EXTENSIBLE FIRMWARE INTERFACE (UEFI) SERVICES	6/10/2015	14735190	Dell Products L.P.
82.		6/10/2015	14736100	Dell Products L.P.
83.	SYSTEMS AND METHODS FOR COMMAND-BASED ENTRY INTO BASIC INPUT/OUTPUT SYSTEM SETUP FROM OPERATING SYSTEM	6/11/2015	14/736967	Dell Products L.P.
84.	METHOD AND APPARATUS FOR DEMAND ESTIMATION FOR ENERGY MANAGEMENT OF CLIENT SYSTEMS	6/11/2015	14/737326	Dell Products L.P.
85.	TOUCH USER INTERFACE AT A DISPLAY EDGE	6/11/2015	14/737292	Dell Products L.P.
86.	LIGHT GUIDE FOR DISPLAY LIGHT ENHANCEMENT	6/11/2015	14/737329	Dell Products L.P.
	SYSTEM AND METHOD FOR HOSTING MULTIPLE RECOVERY OPERATING SYSTEMS IN MEMORY	6/12/2015	14/738430	Dell Products L.P.
88.	SYSTEMS AND METHODS FOR ENABLING VIRTUAL KEYBOARD-VIDEO-MOUSE FOR EXTERNAL GRAPHICS CONTROLLERS	6/12/2015	14/737842	Dell Products L.P.
89.	DYNAMICALLY OPTIMIZING DATA ACCESS PATTERNS USING PREDICTIVE CROWDSOURCING	6/12/2015	14/738087	Dell Software Inc.
90.	SYSTEM AND METHOD FOR SECURE IN- FORMATION HANDLING SYSTEM FLASH MEMORY ACCESS	6/15/2015	14/739519	Dell Products L.P.
91.	COMPLETION NOTIFICATION FOR A STORAGE DEVICE	6/15/2015	14/739709	Dell Products L.P.
92.	POWER EXCURSION WARNING SYSTEM	6/16/2015	14/741215	Dell Products L.P.
93.	SYSTEMS AND METHODS FOR REPLICATION OF DATA UTILIZING DELTA VOLUMES	6/16/2015	14/740,406	Dell Products L.P.
	METHOD AND APPARATUS FOR CUSTOMIZED ENERGY POLICY BASED ON ENERGY DEMAND ESTIMATION FOR CLIENT SYSTEMS		14/741125	Dell Products L.P.
	MULTI-TENANT SAAS ENVIRONMENT TO CONTROL THEIR OWN UPGRADE TIMELINES ON AN ACCOUNT- BY-ACCOUNT BASIS.	6/16/2015	14/741021	Dell Software Inc.
96.	FLEXIBLE DISPLAY DEVICE MONITORING SYSTEM	6/17/2015	14/742235	Dell Products L.P.
	SYSTEMS AND METHODS FOR SMART DIAGNOSES AND TRIAGE OF FAILURES WITH IDENTITY CONTINUITY		14742253	Dell Products L.P.
98.	CENTRALIZED PLUGGABLE AUTHENTICATION AND AUTHORIZATION	6/17/2015	14/742239	Wyse Technology L.L.C.
99.	MIDDLEWARE AS A SERVICE	6/17/2015	14/742092	Wyse Technology L.L.C.
100.	PLUGGABLE AUTHENTICATION AND AUTHORIZATION	6/17/2015	14/742124	Wyse

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				Technology L.L.C.
101.	CLIENT SIDE REDIRECTION	6/17/2015	14/742191	Dell Products L.P.
102.	CLIENT SIDE REDIRECTION WITH PLUGGABLE AUTHENTICATION AND AUTHORIZATION	6/17/2015	14/742148	Dell Products L.P.
103.	SYSTEM AND METHOD TO DISCOVER VIRTUAL MACHINES FROM A MANAGEMENT CONTROLLER	6/18/2015	14/743454	Dell Products L.P.
104.	SYSTEM AND METHOD FOR MANAGING SPACE ALLOCATION WITHIN A FILE SYSTEM	6/22/2015	14/746086	Dell Products L.P.
105.	SYSTEM AND METHOD FOR PROVIDING ACCESSIBILITY FOR ACCESS CONTROLLER STORAGE MEDIA	6/22/2015	14/746418	Dell Products L.P.
106.		6/22/2015	14/746318	Dell Products L.P.
	SYSTEMS AND METHODS FOR PROVIDING PROTOCOL INDEPENDENT DISJOINT PORT NAMES	6/22/2015	14/746258	Dell Products L.P.
108.	METHOD AND APPARATUS TO PERFORM MULTIPLE PACKET PAYLOADS ANALYSIS	6/23/2015	14/747860	Dell Products L.P.
109.	AUTOMATED FAULT RECOVERY	6/23/2015	14747918	Dell Products L.P.
	PRE-BOOT SELF-HEALING AND ADAPTIVE FAULT ISOLATION	6/23/2015	14747827	Dell Products L.P.
		6/23/2015	14747994	Dell Products L.P.
112.	SYSTEMS AND METHODS FOR FREQUENCY SHIFTING RESONANCE OF CONNECTOR STUBS	6/23/2015	14/747947	Dell Products L.P.
113.		6/23/2015		Dell Products L.P.
114.		6/23/2015		Dell Products L.P.
	METHOD AND CONTROL SYSTEM PROVIDING AN INTERACTIVE INTERFACE FOR DEVICE-LEVEL MONITORING AND SERVICING OF DISTRIBUTED, LARGE SCALE INFORMATION HANDLING SYSTEM (LSIHS) (WITH ONE CLICK COMMISSION OF DEVICE TEST ACROSS ENTIRE LSIHS)	6/23/2015	l '	Dell Products L.P.
	METHOD AND CONTROL SYSTEM PROVIDING AN INTERACTIVE INTERFACE FOR DEVICE-LEVEL MONITORING AND SERVICING OF DISTRIBUTED, LARGE-SCALE INFORMATION HANDLING SYSTEM (LIHS)	6/23/2015	14/748,199	Dell Products L.P.
117.	FLOATING SET POINTS TO OPTIMIZE POWER ALLOCATION AND USE IN MODULAR DATA CENTER	6/23/2015	14/748,201	Dell Products L.P.
118.	DISPLAY COVER PANEL WITH INSERT MOLDING	6/23/2015	14/747393	Dell Products L.P.
119.	FLOW-BASED NETWORK SWITCHING SYSTEM	6/24/2015	14/749332	Dell Products L.P.
120.	PROACTIVE FAULT	6/25/2015	14750789	Dell Products

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	AVOIDANCE			L.P.
121.	COOPERATIVE DATA RECOVERY IN A STORAGE STACK	6/25/2015	· · · · · · · · · · · · · · · · · · ·	Dell Products L.P.
122.	SYSTEMS AND METHODS FOR REDUCING BIOS REBOOTS	6/25/2015		Dell Products L.P.
123.	PORT MONITORING SYSTEM	6/25/2015	14/750764	Dell Products L.P.
124.	COMPUTING DEVICE CONFIGURATION AND MANAGEMENT USING A SECURE DECENTRALIZED TRANSACTION LEDGER	6/25/2015	14/750822	Dell Products L.P.
125.	PORT MONITORING SYSTEM	6/26/2015	14/751494	Dell Products L.P.
126.	LEVERAGING SNAPSHOTS AND REPLICAS TO RECOVER UNREADABLE SECTORS	6/30/2015		Dell Products L.P.
127.	CENTRALIZED WIRELESS LAN LOAD BALANCING	6/30/2015		Dell Products L.P.
	A NETWORK OF DEVICES WITH EMBEDDED ELECTRON-ICS	6/30/2015		Dell Products L.P.
	SYSTEM AND METHOD FOR IMPLEMENTING AN ECOSYSTEM BASED ON POLICY EXCHANGES IN A NETWORK OF DEVICES WITH EMBEDDED ELEC- TRONICS	6/30/2015		Dell Products L.P.
	SYSTEM AND METHOD FOR DEVICE P:OLICY EXCHANGE IN A NETWORK OF DEVICES WITH EMBEDDED ELECTRONICS	6/30/2015		Dell Products L.P.
131.	SERVER INFORMATION HANDLING SYSTEM WIRELESS MANAGEMENT AND TOPOLOGY	6/30/2015		Dell Products L.P.
132.	SERVER INFORMATION HANDLING SYSTEM SIRELESS MANAGEMENT AND TOPOLOGY	6/30/2015	14/755325	Dell Products L.P.
133.	COMPUTE CLUSTER LOAD BALANCING BASED ON I/O CACHE CONTENTS	7/1/2015	14/789855	Dell Products L.P.
134.	SENSOR DATA ADVERTISEMENT VIA NETWORK IDENTIFIER IN SHARED SPACES	7/1/2015		Dell Products L.P.
135.	INFORMATION HANDLING SYSTEM	7/1/2015	29/532035	Dell Products L.P.
136.	COMPUTING DEVICE SERVICE LIFE MANAGEMENT	7/1/2015	14/789823	Dell Products L.P.
	INFORMATION HANDLING SYSTEM CON- FIGURATION PARAMETER HISTORY MANAGEMENT	7/1/2015	14/789847	Dell Products L.P.
138.	COMPUTE CLUSTER LOAD BALANCING BASED ON MEMORY PAGE CONTENTS	7/1/2015	14/789852	Dell Products L.P.
	METHOD AND APPARATUS FOR DYNAMICALLY GENERATING MEDIA CLIPS ON DEMAND FOR LIVE STREAMING	7/2/2015		Dell Products L.P.
140.	SYSTEMS AND METHODS TO CREATE HIGHLY SCALABLE NETWORK SERVICES	7/2/2015	14/790975	Dell Products L.P.
141.	SYSTEMS AND METHODS TO SECURELY INJECT BINARY IMAGES AND CODE INTO FIRMWARE	7/6/2015		Dell Products L.P.
142.	VIRTUAL CHANNEL VIRTUAL PRIVATE NETWORK	7/6/2015	14/792021	Dell Products L.P.
143.	DIFFERENTIAL TRACE PAIR SYSTEM	7/7/2015		Dell Products

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				L.P.
144.	MICROBURST MONITORING SYSTEM	7/7/2015	14/793126	Dell Products L.P.
	INFORMATION HANDLING SYSTEM BATTERY CHARGE MANAGEMENT TO SUPPORT VARIABLE INCREASED CURRENT USE FUNCTIONS	7/9/2015	14/795446	Dell Products L.P.
	SYSTEM AND METHOD FOR IMPROVING SECURITY INTELLIGENCE THROUGH INVENTORY DISCOVERY	7/10/2015	14/797,010	Dell Software Inc.
	VARIABLE STIFFNESS CHASSIS FOR ULTRATHIN DEVICES	7/10/2015	14/796828	Dell Products L.P.
	METHOD FOR DEPLOYING BIOS INTEGRITY MEASUREMENT VIA BIOS UPDATE PACKAGE AND SYSTEM THEREFOR	7/10/2015	14/796864	Dell Products L.P.
	SYSTEMS AND METHODS FOR LOADING FIRMWARE MODULES	7/10/2015	14/796096	Dell Products L.P.
	GENERATING REPORTS FROM SHORT MESSAGE TYPE IDENTIFIERS BASED ON SPECIFIC ATTRIBUTES	7/10/2015	14/796058	Dell Products L.P.
	METHOD FOR RESOURCE AND PERFORMANCE MATCHING IN VIRTUAL POOL OF MIXED GRAPHICS WORKLOADS	7/13/2015	14/798022	Dell Products L.P.
152.	FABRIC INDEPENDENT PCIE CLUSTER MANAGER	7/14/2015	14/799005	Dell Products L.P.
153.	CARBON FIBER/CERAMIC CHASSIS	7/15/2015		Dell Products L.P.
154.	MULTI-PROCESSOR STARTUP SYSTEM	7/15/2015		Dell Products L.P.
	SESSION MANAGER FOR SECURED REMOTE COMPUTING	7/16/2015		Dell Products L.P.
	SYSTEM AND METHOD OF MEASURING REAL-TIME CURRENT	7/17/2015		Dell Products L.P.
	APPARATUS AND METHOD FOR SEMI- CIRCULAR ROUTING FOR TRANSMISSION LINE SIGNALS	7/17/2015		Dell Products L.P.
	SYSTEM AND METHOD FOR GREEN BATTERY CONDITIONING	7/17/2015		Dell Products L.P.
	SAFETY CIRCUIT FOR INFRARED AND LASER IMAGING DEVICES	7/17/2015		Dell Products L.P.
	DISPLAY DEVICE WITH COMPACT INTEGRATED STRUCTURAL DESIGN	7/17/2015		Dell Products L.P.
	SYSTEMS AND METHODS FOR A COMMODITY CONTRACTS MARKET USING A SECURE DISTRIBUTED TRANSACTION LEDGER	7/17/2015		Dell Products L.P.
	METHOD AND APPARATUS FOR CONNECTION CONTEXT AWARE RADIO COMMUNICATION MANAGEMENT	7/20/2015		Dell Products L.P.
	POWER OVER ETHERNET DYNAMIC POWER ALLOCATION SYSTEM	7/20/2015	14/803709	Dell Products L.P.
	INSTALLATION OF DEVICE DRIVERS FROM VIRTUAL MEDIA	7/20/2015	14/803817	Dell Products L.P.
165.	PROBABILITY BASED WHITELIST	7/22/2015	14/806072	Dell Products L.P.
	APPARATUS AND METHOD FOR PRECISION IMMOBILIZATION OF MULTIPLE CAMERAS IN A MULTI-	7/22/2015	14/806158	Dell Products L.P.

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	CAMERA SYSTEM			
167.	SYSTEMS AND METHODS FOR AUTONOMOUS, SCALABLE, AND DISTRIBUTED DATABASE MANAGEMENT	7/22/2015		Dell Products L.P.
168.	SYSTEMS AND METHODS FOR INTERNET RECOVERY AND SERVICE	7/22/2015		Dell Products L.P.
169.	SYSTEMS AND METHODS FOR APPLICATION-AWARE INFORMATION HANDLING RESOURCE THROTTLING	7/23/2015	l	Dell Products L.P.
170.	SYSTEMS AND METHODS FOR INPUT/OUTPUT TRAFFIC SHAPING FOR OPTIMAL PERFORMANCE UNDER THERMAL CONSTRAINTS	7/23/2015		Dell Products L.P.
171.	BANDWIDTH OPTIMIZATION FOR REMOTE DESKTOP PROTOCOL	7/24/2015		Dell Products L.P.
172.	OVER CURRENT PROTECTION IN A VARIABLE OUTPUT POWER SUPPLY	7/24/2015		Dell Products L.P.
173.	SYSTEMS AND METHODS FOR AUTONOMOUS RESOURCE DISCOVERY, MANAGEMENT, AND STITCHING	7/24/2015		Dell Products L.P.
174.	SYSTEM AND METHOD FOR CALCULATING DATA COMPRESSION RATIO WITHOUT WRITING DATA TO MEDIA	7/27/2015	· '	Dell Products L.P.
175.	DHCP COMMUNICATIONS CONFIGURATION SYSTEM	7/27/2015	l	Dell Products L.P.
176.	INFORMATION HANDLING SYSTEM CONFIGURATION FOR POWER SYSTEM OUTPUT CAPABILITY	7/27/2015		Dell Products L.P.
177.	SYSTEMS AND METHODS FOR MANAGEMENT OF SURFACE TEMPERATURE IN AN INFORMATION HANDLING SYSTEM	7/28/2015		Dell Products L.P.
178.	STATE-BASED PROVISIONING OF A CLIENT HAVING A WINDOWS-BASED EMBEDDED IMAGE	7/28/2015		Dell Products L.P.
179.	BOOTSTRAP CONTROLLER FOR SWITCHING POWER SUPPLY	7/28/2015		Dell Products L.P.
180.	INTER-NETWORKING DEVICE LINK PROVISIONING SYSTEM	7/28/2015	· /	Dell Products L.P.
181.	SYSTEM AND METHOD TO REDIRECT USB MASS STORAGE DEVICES IN HIGH LATENCY VDI ENVIRONMENTS	7/29/2015	14/812067	Wyse Technology L.L.C.
182.	SYSTEM AND METHOD TO IMPROVE USB MASS STORAGE DEVICE ARRIVAL ACCELERATION FOR REDIRECTED USB MASS STORAGE DEVICES	7/29/2015	14/812296	Wyse Technology L.L.C.
183.	MANAGING ALERT PROFILES	7/29/2015	14/812823	Dell Software Inc.
	PROTOCOL INDEPENDENT WAY FOR DYNAMICALLY SELECTING DATA COMPRESSION METHODS FOR REDIRECTED USB DEVICES	7/29/2015		Wyse Technology L.L.C.
	GEOGRAPHY BASED HTML5 CONTENT REDIRECTION			Wyse Technology L.L.C.
186.	PROTOCOL INDEPENDENT WAY TO RESERVE AND ASSIGN PREFERRED PORT NAMES FOR SESSION- ISOLATED USB SERIAL/PARALLEL PORT DEVICES	7/29/2015	14/811968	Wyse Technology L.L.C.
187.	PROVISIONING AND MANAGING AUTONOMOUS	7/29/2015	14/812,488	Dell Products

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	SENSORS			L.P.
188.	SYSTEMS AND METHODS FOR ENHANCING SYSTEM HOLD UP TIME USING REVERSE CHARGING OF POWER SUPPLY UNIT	7/30/2015	14/814275	Dell Products L.P.
189.	SYSTEMS AND METHODS FOR PROGRAMMABLE SYSTEM RIDE-THROUGH AND HOLD-UP	7/30/2015		Dell Products L.P.
190.	INFORMATION HANDLING SYSTEM VIRTUALIZED POINTING DEVICE SUPPORT BETWEEN MULTIPLE PROTOCOLS	7/30/2015	14/813309	Dell Products L.P.
191.	EVENT-BASED DISPLAY INFORMATION PROTECTION SYSTEM	7/30/2015		Dell Products L.P.
192.	TRANSACTION REQUEST OPTIMIZATION FOR REDIRECTED USB DEVICES OVER A NETWORK	7/30/2015		Wyse Technology L.L.C.
193.	SYSTEM AND METHOD FOR INFORMATION SHARING USING VISUAL TAGS	7/30/2015		Dell Products L.P.
194.	HANDLING SHINGLED MAGNETIC RECORDING (SMR) DRIVES IN A TIERED STORAGE SYSTEM	7/31/2015	14815755	Dell Products L.P.
	SYSTEMS AND METHODS FOR PROVIDING WAKE-ON- LAN (WOL) SUPPORT	7/31/2015	14/815582	Dell Products L.P.
196.	AUTOMATIC DETERMINATION OF OPTIMAL TIME WINDOW FOR MIGRATION, BACKUP OR OTHER PROCESSES	7/31/2015	14/815,221	Dell Software Inc.
197.	SOCIAL MEDIA LOGIN AND INTERACTION MANAGEMENT	7/31/2015	14/815866	Dell Software Inc.
198.	SOLID STATE DRIVE COOLING FOR USE IN RACK SERVERS AND DENSE STORAGE	7/31/2015	14815840	Dell Products L.P.
199	PROACTIVE DYNAMIC PEAK POWER LIMITING	8/2/2015	,	Dell Products L.P.
200.	SYSTEMS AND METHODS FOR MANAGEMENT OF EXHAUST TEMPERATURE IN AN INFORMATION HANDLING SYSTEM	8/3/2015	14/816893	Dell Products L.P.
201.	A SOFTWARE BASED SELF-ENCRYPTING DRIVE (SED) DRIVE SLEEP RESUMING METHOD	7/9/2017		Dell Products L.P.

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