PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT7002954

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	RELEASE OF SECURITY INTEREST AT REEL 055408 FRAME 0697

CONVEYING PARTY DATA

Name	Execution Date
CREDIT SUISSE AG, CAYMAN ISLANDS BRANCH	11/01/2021

RECEIVING PARTY DATA

Name:	DELL PRODUCTS L.P.
Street Address:	ONE DELL WAY
City:	ROUND ROCK
State/Country:	TEXAS
Postal Code:	78682
Name:	EMC IP HOLDING COMPANY LLC
Street Address:	ONE DELL WAY
City:	ROUND ROCK
State/Country:	TEXAS
Postal Code:	78682

PROPERTY NUMBERS Total: 521

Property Type	Number
Application Number:	17162807
Application Number:	17160574
Application Number:	17160540
Application Number:	17160609
Application Number:	17160597
Application Number:	17160579
Application Number:	17160519
Application Number:	17160707
Application Number:	17160629
Application Number:	17161582
Application Number:	17159393
Application Number:	17159664
Application Number:	17159578
Application Number:	17159678
Application Number:	17160097

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Application Number:	17159903
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Application Number:	17158370
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Application Number:	17088192
Application Number:	17086866
Application Number:	16260713
Application Number:	16263657
Application Number:	16263767

CORRESPONDENCE DATA

Fax Number: (202)408-3141

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: 202-408-3121 X62348

Email: jean.paterson@cscglobal.com

Correspondent Name: CSC

Address Line 1: 1090 VERMONT AVENUE NW, SUITE 430

Address Line 4: WASHINGTON, D.C. 20005

NAME OF SUBMITTER:	JEAN PATERSON
SIGNATURE:	/jep/
DATE SIGNED:	11/02/2021

Total Attachments: 53
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RELEASE OF SECURITY INTEREST IN PATENTS

This RELEASE OF SECURITY INTEREST IN PATENTS (this "Release"), dated as of November 1, 2021 (the "Effective Date"), is made by CREDIT SUISSE AG, CAYMAN ISLANDS BRANCH, in its capacity as Collateral Agent (the "Agent"), in favor of the grantor party identified on the signature page hereto (the "Grantor").

WHEREAS, pursuant to that certain Collateral Agreement, dated as of September 7, 2016, by and among the Agent, the Grantor and certain other parties thereto (as amended, amended and restated, or otherwise modified from time to time, the "Collateral Agreement"), the Grantor granted to the Agent, in its capacity as Agent, a security interest in and to certain collateral;

WHEREAS, pursuant to the Collateral Agreement, the Grantor executed and delivered a Patent Security Agreement, dated as of February 25, 2021 (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 25, 2021 at Reel/Frame 055408/0697;

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 on Schedule A 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 Grantor.
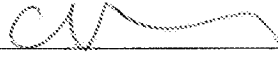
3. Termination. The Agent, without representation or warranty of any kind, terminates and cancels the Patent Security Agreement.

4. Further Assurances. The Agent agrees to take all further actions, and provide to the Grantor 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 Grantor, at the Grantor's sole cost and expense, to more fully and effectively effectuate the purposes of this Release.
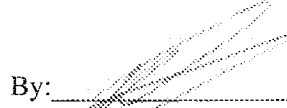
5. Governing Law. This Release shall be governed exclusively under the laws of New York, without regard to conflicts of law or choice of law principles.

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

CREDIT SUISSE AG, CAYMAN ISLANDS BRANCH, acting in its capacity as Collateral Agent for the Lenders

By: _____

Name: William O'Daly
Title: Authorized Signatory

By: _____

Name: Jessica Gavarkovs
Title: Authorized Signatory

GRANTORS:
    DELL PRODUCTS L.P.
    EMC IP HOLDING COMPANY LLC

[Signature Page to Patent Release]

SCHEDULE A

Release of Reel/Frame 054408/0697

Owner	Application Title	Application Number	Filed Date
Dell Products L.P.	System and Method to Reduce Address Range Scrub Execution Time in Non-Volatile Dual Inline Memory Modules	17/162807	1/29/2021
Dell Products L.P.	Distributed Storage Data Reduction	17/160574	1/28/2021
Dell Products L.P.	METHOD AND SYSTEM FOR PROVIDING COMPOSABLE INFRASTRUCTURE CAPABILITIES	17/160540	1/28/2021
Dell Products L.P.	Multi-system NVMe-oF target agent	17/160609	1/28/2021
Dell Products L.P.	METHOD AND SYSTEM FOR LIMITING DATA ACCESSIBILITY IN COMPOSED SYSTEMS	17/160597	1/28/2021
Dell Products L.P.	SYSTEM AND METHOD FOR OPERATION ANALYSIS	17/160579	1/28/2021
Dell Products L.P.	SYSTEM AND METHOD FOR MANAGEMENT OF COMPOSED SYSTEMS USING OPERATION DATA	17/160519	1/28/2021
Dell Products L.P.	SYSTEM AND METHOD FOR SECURELY MANAGING RECORDED VIDEO CONFERENCE SESSIONS	17/160707	1/28/2021
Dell Products L.P.	SYSTEM AND METHOD FOR INTELLIGENT MULTI-APPLICATION AND POWER	17/160629	1/28/2021

	MANAGEMENT FOR MULTIMEDIA COLLABORATION APPLICATIONS		
Dell Products L.P.	SYSTEM AND METHOD FOR OPERATING AN INTELLIGENT FACE FRAMING MANAGEMENT SYSTEM FOR VIDEOCONFERENCING APPLICATIONS	17/161582	1/28/2021
Dell Products L.P.	Method and System for Providing a Mesh Network of Displays Using a Universal Serial Bus	17/159393	1/27/2021
Dell Products L.P.	Selective Noise Cancellation	17/159664	1/27/2021
Dell Products L.P.	Dynamic-Baseline Imaging Array with Real-Time Spatial Data Capture and Fusion	17/159578	1/27/2021
Dell Products L.P.	ASSIGNING CUSTOMER CALLS TO CUSTOMER CARE AGENTS BASED ON COMPATABILITY	17/159678	1/27/2021
Dell Products L.P.	Color Temperature Adjustment Independent of Scaler Color Space	17/160097	1/27/2021
Dell Products L.P.	Adjusting Audio Volume and Quality of Near End and Far End Talkers	17/160141	1/27/2021
Dell Products L.P.	Synchronous Multi-Segment Hinge for Foldable Devices	17/159880	1/27/2021
Dell Products L.P.	Method to dynamically assess and improve PC user Wellbeing	17/160362	1/27/2021
Dell Products L.P.	Encrypted Data Storage System	17/159903	1/27/2021
Dell Products L.P.	Portable Information Handling System Midframe to Sliding Frame Assembly	17/158605	1/26/2021

Dell Products L.P.	Information Handling System Mass Balancing Thermal Reservoirs	17/158370	1/26/2021
Dell Products L.P.	Zoned Dielectric Loss Circuit Board System	17/158524	1/26/2021
Dell Products L.P.	Power Supply Powerline Networking Management System	17/158427	1/26/2021
Dell Products L.P.	Inhomogeneous Dielectric Medium HIgh-Speed Stripline Trace System	17/158618	1/26/2021
Dell Products L.P.	Inhomogeneous Dielectric Medium HIgh-Speed Stripline Trace System	17/158769	1/26/2021
Dell Products L.P.	SYSTEM AND METHOD FOR OPERATING AN INTELLIGENT VIDEOFRAME PRIVACY MONITORING MANAGEMENT SYSTEM FOR VIDEOCONFERENCING APPLICATIONS	17/159064	1/26/2021
Dell Products L.P.	SYSTEM AND METHOD FOR INTELLIGENT APPEARANCE MONITORING MANAGEMENT SYSTEM FOR VIDEOCONFERENCING APPLICATIONS	17/158548	1/26/2021
Dell Products L.P.	Systems and Methods for Power Protection on Failed Memory Devices	17/158482	1/26/2021
Dell Products L.P.	NVME Over Fabrics Authentication System	17/158912	1/26/2021
Dell Products L.P.	DATA COLLECTION AGENT TRAINED FOR TELEMETRY DATA COLLECTION	17/157257	1/25/2021
Dell Products L.P.	Contextual Latency Configuration for Isochronous Audio Transport	17/156812	1/25/2021

Dell Products L.P.	A SYSTEM AND METHOD FOR VIDEO PERFORMANCE OPTIMIZATIONS DURING A VIDEO CONFERENCE SESSION	17/157586	1/25/2021
Dell Products L.P.	Management Controller to BIOS Root of Trust Bypass Implant Detection and Remediation	17/157492	1/25/2021
Dell Products L.P.	SYSTEM AND METHOD FOR SERVICEABILITY DURING EXECUTION OF A VIDEO CONFERENCING APPLICATION USING INTELLIGENT CONTEXTUAL SESSION MANAGEMENT	17/156618	1/24/2021
Dell Products L.P.	SYSTEM AND METHOD FOR INTELLIGENT VIRTUAL BACKGROUND MANAGEMENT FOR VIDEOCONFERENCING APPLICATIONS	17/156606	1/24/2021
Dell Products L.P.	Innovative hard disk failure detection using sound sensors to use as an input to sound classification techniques (PART#2 -focuses on the sound classification technique)	17/155279	1/22/2021
Dell Products L.P.	Innovative hard disk failure detection using sound sensors to use as an input to sound classification techniques (PART#1-focuses only on the sound sensor)	17/155272	1/22/2021
Dell Products L.P.	A method to authenticate users in combination of finger prints and heartbeats	17/155231	1/22/2021

Dell Products L.P.	METHOD AND APPARATUS FOR PROACTIVELY COUNTERING THE EFFECTS OF STORAGE DEVICE FAILURE	17/155801	1/22/2021
Dell Products L.P.	AUTOMATED SOFTWARE UPGRADE DOWNLOAD CONTROL BASED ON DEVICE ISSUE ANALYSIS	17/155197	1/22/2021
Dell Products L.P.	A Method To Determine the Most Appropriate time to replace faulty FAN	17/155223	1/22/2021
Dell Products L.P.	IMPROVING TEST CASE EXECUTION SEQUENCES	17/155533	1/22/2021
Dell Products L.P.	DETACHABLE WIRELESS CHARGING CLIP	17/155804	1/22/2021
Dell Products L.P.	System and Method for Intelligent Imaging Sensory Classification	17/155425	1/22/2021
Dell Products L.P.	SYSTEM AND METHOD FOR CALCULATING BATTERY LIFE	17/155932	1/22/2021
Dell Products L.P.	Automated Synchronous Key Multi-Factor Authentication	17/155995	1/22/2021
Dell Products L.P.	Secure Infrastructure Onboarding System	17/155821	1/22/2021
Dell Products L.P.	ASYNCHRONOUS MEETING MANAGEMENT FOR COLLABORATION SOLUTIONS	17/156187	1/22/2021
Dell Products L.P.	METHOD AND SYSTEM FOR DYNAMIC AUTO-GENERATION OF UP-TO-DATE DEPLOYMENT AND OPERATIONS GUIDANCE FOR SOLUTIONS	17/156166	1/22/2021

Dell Products L.P.	Clamshell cable channel sealing method and apparatus	17/156075	1/22/2021
Dell Products L.P.	MANAGING INTERNET PROTOCOL (IP) ADDRESS DETECTION WITH A SYSTEM MANAGEMENT CONSOLE	17/155398	1/22/2021
Dell Products L.P.	Systems and Methods for Providing Secured Boot and Scan for Devices with Limited Access	17/155788	1/22/2021
Dell Products L.P.	Mechanisms and Method for Two-Sided Rack Access	17/154931	1/21/2021
Dell Products L.P.	Image-Based Search and Prediction System for Physical Defect Investigations	17/154390	1/21/2021
Dell Products L.P.	NETWORK TIME PARAMETER CONFIGURATION BASED ON LOGICAL HOST GROUP	17/154469	1/21/2021
Dell Products L.P.	Automatically Migrating Process Capabilities Using Artificial Intelligence Techniques	17/154341	1/21/2021
Dell Products L.P.	Automatically Identifying and Correcting Erroneous Process Actions Using Artificial Intelligence Techniques	17/154326	1/21/2021
Dell Products L.P.	SECURE DATA STRUCTURE FOR DATABASE SYSTEM	17/154271	1/21/2021
Dell Products L.P.	Information Handling System with Integrated Latches for Stacking Electrical Enclosures	17/154800	1/21/2021
Dell Products L.P.	OPTIMIZATION OF LOW POWER STATES WHILE AC LINE POWER AVAILABILITY IS LIMITED	17/154140	1/21/2021
Dell Products L.P.	FOLDABLE DISPLAY FOR AN	17/154201	1/21/2021

	INFORMATION HANDLING SYSTEM		
Dell Products L.P.	SCALED COMPUTE MANAGEMENT FOR COLLABORATION SOLUTIONS	17/154400	1/21/2021
Dell Products L.P.	SYSTEM AND METHOD FOR MEETING PREPARATION AND USER CONTENT MANAGEMENT USING HETEROGENEOUS CLOUD SERVICE PROVIDERS	17/154386	1/21/2021
Dell Products L.P.	Managed Intelligent Discovery with Working Together Easy Connect	17/154329	1/21/2021
Dell Products L.P.	LIGHTING, COLOR VECTOR, AND VIRTUAL BACKGROUND CORRECTION DURING A VIDEO CONFERENCE SESSION	17/154821	1/21/2021
Dell Products L.P.	SYSTEM AND METHOD FOR INTELLIGENT CONTEXTUAL SESSION MANAGEMENT FOR VIDEOCONFERENCING APPLICATIONS	17/154528	1/21/2021
Dell Products L.P.	Systems and Methods for Floating Paddle Card Enablement	17/154836	1/21/2021
Dell Products L.P.	SUPPORT PLATFORM WITH BI-DIRECTIONAL COMMUNICATION CHANNEL FOR PERFORMING REMOTE ACTIONS ON COMPUTING DEVICES	17/152860	1/20/2021
Dell Products L.P.	INFORMATION EXTRACTION FROM IMAGES USING NEURAL NETWORK TECHNIQUES AND	17/153359	1/20/2021

Dell Products L.P.	DEVICE DISCOVERY IN A VIRTUALIZED ENVIRONMENT	17/153091	1/20/2021
Dell Products L.P.	Firmware Failure Reason Prediction Using Machine Learning Techniques	17/153370	1/20/2021
Dell Products L.P.	ELECTRONIC DEVICE MANAGEMENT UTILIZING A DISTRIBUTED LEDGER	17/152964	1/20/2021
Dell Products L.P.	ADJUSTING CAMERA SETTINGS BASED ON A DISPLAY OF AN INFORMATION HANDLING SYSTEM	17/152904	1/20/2021
Dell Products L.P.	Information Handling System Blue Light Exposure System and Method	17/153665	1/20/2021
Dell Products L.P.	System and Method for Measuring and Controlling Dust Ingress in a Particulate Matter Sensor in an Information Handling System	17/153203	1/20/2021
Dell Products L.P.	Information Handling System Display Visual Augmentation System and Method	17/153668	1/20/2021
Dell Products L.P.	Aggregated Networking Subsystem Station Move Control System	17/153072	1/20/2021
Dell Products L.P.	Asymmetric to Symmetric IRB Migration System	17/152908	1/20/2021
Dell Products L.P.	System and Method for Closed-Loop Memory Power Capping	17/153583	1/20/2021
Dell Products L.P.	SYSTEM FUNCTIONALITY ACTIVATION USING DISTRIBUTED LEDGER	17/152043	1/19/2021
Dell Products L.P.	BLOCKCHAIN-BASED ATTESTATION SERVICE	17/152037	1/19/2021
Dell Products L.P.	Transforming Background Color of Displayed Documents to Increase Lifetime of OLED Display	17/152195	1/19/2021

Dell Products L.P.	System and Method for Transfer of Clipboard Data Between Display Screens	17/152396	1/19/2021
Dell Products L.P.	SYSTEM AND METHOD OF UTILIZING MEMORY MEDIUM FAULT RESILIENCY WITH SECURE MEMORY MEDIUM PORTIONS	17/152115	1/19/2021
Dell Products L.P.	Storage Usage Management System	17/151817	1/19/2021
Dell Products L.P.	BINDING CUSTOMER-SIGNED IMAGE TO A SPECIFIC PLATFORM	17/152314	1/19/2021
Dell Products L.P.	DETERMINING CHANGES TO COMPONENTS OF A COMPUTING DEVICE PRIOR TO BOOTING TO A PRIMARY ENVIRONMENT OF THE COMPUTING DEVICE	17/151459	1/18/2021
Dell Products L.P.	System and Method for Switching and On-Device Portability of Personalized Monitor Profiles	17/151411	1/18/2021
Dell Products L.P.	EVENT-BASED OPERATIONAL DATA COLLECTION FOR IMPACTED COMPONENTS	17/150662	1/15/2021
Dell Products L.P.	CONTEXT-BASED INTELLIGENT RE-INITIATION OF MICROSERVICES	17/150623	1/15/2021
Dell Products L.P.	ADJUSTING UNDERLIGHTING OF A KEYBOARD INPUT DEVICE	17/150042	1/15/2021
Dell Products L.P.	Auto Allocate The Position Setting For Extending Monitors	17/149974	1/15/2021
Dell Products L.P.	Method to use enterprise hosted, integrity protected ledger for component certificate attestation	17/149956	1/15/2021

Dell Products L.P.	Group Conference Video Optimization	17/149938	1/15/2021
Dell Products L.P.	Method to Produce flexible hinge covers for foldable devices	17/150743	1/15/2021
Dell Products L.P.	Method to Resolve Touch and Pen Conflict Among Multiple Touch Controllers in Large and Foldable Touch Screen Displays	17/150423	1/15/2021
Dell Products L.P.	SMART SERVICE ORCHESTRATOR	17/150108	1/15/2021
Dell Products L.P.	Automatically Determining Configuration-Based Issue Resolutions Across Multiple Devices Using Machine Learning Models	17/148738	1/14/2021
Dell Products L.P.	DISPLAYING MULTI-SOURCE CONTENT BASED ON INTERACTION DATA	17/149049	1/14/2021
Dell Products L.P.	SYSTEM AND METHOD OF DETERMINING AT LEAST ONE INFORMATION HANDLING SYSTEM FOR A GAME	17/148981	1/14/2021
Dell Products L.P.	Thermal and Acoustical Management in Information Handling Systems Based on Mechanical Connections	17/148786	1/14/2021
Dell Products L.P.	Thermal and Acoustical Management in Information Handling Systems	17/149192	1/14/2021
Dell Products L.P.	MEMORY SCRUB SYSTEM	17/147555	1/13/2021
Dell Products L.P.	Portable LED Receiver	17/148271	1/13/2021
Dell Products L.P.	Desktop Display Assignment Optimization	17/148241	1/13/2021

	in a Virtual Desktop Environment		
Dell Products L.P.	MANAGING CONTENT OF A USER INTERFACE	17/147850	1/13/2021
Dell Products L.P.	MANAGING INPUT SENSITIVITY OF AN INFORMATION HANDLING SYSTEM	17/147796	1/13/2021
Dell Products L.P.	IMAGE ANALYSIS FOR PROBLEM RESOLUTION	17/147657	1/13/2021
Dell Products L.P.	Information Handling System Host to Management Controller Attestation Service Channel	17/148286	1/13/2021
Dell Products L.P.	Client Driven Cloud Network Access System and Method	17/148345	1/13/2021
Dell Products L.P.	Configuration Cluster-Based Performance Optimization of Applications in an Information Handling System (IHS)	17/148318	1/13/2021
Dell Products L.P.	ML-to-ML Orchestration System and Method for System Wide Information Handling System (IHS) Optimization	17/148291	1/13/2021
Dell Products L.P.	Transceiver with integrated visual indicator for port link and activity	17/147269	1/12/2021
Dell Products L.P.	Locking apparatus for securing a transceiver module	17/147291	1/12/2021
Dell Products L.P.	Predicting Statistics Gathering Times for Database Activity Data Using Machine Learning Techniques	17/146883	1/12/2021
Dell Products L.P.	SYSTEM AND METHOD OF UTILIZING A MULTIPLAYER GAME	17/146721	1/12/2021
Dell Products L.P.	Extensible Upgrade and Modification as a Service	17/146817	1/12/2021

Dell Products L.P.	SYSTEM AND METHOD OF ADJUSTING ATTRIBUTES OF AN APPLICATION BASED AT LEAST ON A STRESS INDEX ASSOCIATED WITH A USER	17/146684	1/12/2021
Dell Products L.P.	Information Handling System Variable Feel Input Device	17/147224	1/12/2021
Dell Products L.P.	SYSTEMS AND METHODS FOR COMPARISON AND SCORING OF NETWORK ACCESS POINTS	17/146140	1/11/2021
Dell Products L.P.	System and Method for Authorization Scope Extension for Security Protocol and Data Model Capable Devices	17/145479	1/11/2021
Dell Products L.P.	Server Airflow Reporting via Air Mover Power Measurement	17/146428	1/11/2021
Dell Products L.P.	Unique method of determination and control of temperature threshold on airflow (open loop) controlled devices	17/146394	1/11/2021
Dell Products L.P.	Method for Remote Assisted Optimization of Native Services	17/146266	1/11/2021
Dell Products L.P.	Mechanical cable release in transceiver	17/144966	1/8/2021
Dell Products L.P.	CONTROLLING A STATE OF A SHUTTER OF A CAMERA MODULE OF AN INFORMATION HANDLING SYSTEM	17/144907	1/8/2021
Dell Products L.P.	MODEL-BASED RESOURCE ALLOCATION FOR AN INFORMATION HANDLING SYSTEM	17/144512	1/8/2021

Dell Products L.P.	METHOD TO ENHANCE SYSTEM POWER AND THERMAL LIMITS THROUGH SOFTWARE CONTROL FOR CONFIGURATIONS USING EXTERNAL MONITORS	17/144815	1/8/2021
Dell Products L.P.	INFORMATION HANDLING SYSTEM CLOSED LOOP BANDWIDTH PRIORITIZATION	17/144637	1/8/2021
Dell Products L.P.	METHOD AND APPARATUS FOR CHANGE AUTOMATION	17/144589	1/8/2021
Dell Products L.P.	SYSTEM AND METHOD TO UTILIZE HIGH BANDWIDTH MEMORY (HBM)	17/144903	1/8/2021
Dell Products L.P.	UNIFORM BEZEL DISPLAY WITH OFF-AXIS ILLUMINATION	17/143853	1/7/2021
Dell Products L.P.	Hidden Monitor Support	17/143839	1/7/2021
Dell Products L.P.	BIOS/OS KEY PROVISIONING SYSTEM	17/143374	1/7/2021
Dell Products L.P.	High-Speed Cable Drain Wire System	17/143894	1/7/2021
Dell Products L.P.	Information Handling System Infinity Keyboard with Hidden Lattice	17/143861	1/7/2021
Dell Products L.P.	REPLACING DEDICATED WITNESS NODE IN A STRETCHED CLUSTER WITH DISTRIBUTED MANAGEMENT CONTROLLERS	17/143753	1/7/2021
Dell Products L.P.	System and Method for Predictively Sensing Harmful Environmental Conditions Based on Location and Historical User Data	17/142588	1/6/2021

Dell Products L.P.	SINGLE- AND MULTI-CHANNEL, MULTI-LATENCY PAYLOAD BUS	17/142944	1/6/2021
Dell Products L.P.	USING PREDICTION UNCERTAINTY QUANTIFIER WITH MACHINE LEANING CLASSIFIER TO PREDICT THE SURVIVAL OF A STORAGE DEVICE	17/141551	1/5/2021
Dell Products L.P.	Voice Equalization Based on Face Position and System Therefor	17/142043	1/5/2021
Dell Products L.P.	System and Method for Storage Class Memory Tiering	17/141666	1/5/2021
Dell Products L.P.	UPDATING A COMPUTING DEVICE OF AN INFORMATION HANDLING SYSTEM	17/141884	1/5/2021
Dell Products L.P.	SYSTEMS AND METHODS OF AUTOMATICALLY PRE-PROVISIONING EMBEDDED SUBSCRIBER IDENTIFICATION MODULE (ESIM) PROFILES ON AN INFORMATION HANDLING SYSTEM	17/140988	1/4/2021
Dell Products L.P.	Updating Firmware of Unsupported Devices	17/140899	1/4/2021
Dell Products L.P.	Multi-device conference call transfer using BLE Ranging	17/138988	12/31/2020
Dell Products L.P.	Predicting Component Lifespan Information by Processing User Install Base Data and Environment-Related Data Using Machine Learning Techniques	17/137670	12/30/2020
Dell Products L.P.	DETERMINING A DEPLOYMENT SCHEDULE FOR OPERATIONS	17/137733	12/30/2020

	PERFORMED ON DEVICES USING DEVICE DEPENDENCIES AND REDUNDANCIES		
Dell Products L.P.	System an Method for Providing Secure Console Access with Multiple Smart NICS Using NC-SI and SPDM	17/138424	12/30/2020
Dell Products L.P.	Console-Based Validation of Secure Assembly and Delivery of Information Handling Systems	17/138182	12/30/2020
Dell Products L.P.	Validating Secure Assembly and Delivery of Multiple Information Handling Systems Installed in a Shared Chassis	17/138113	12/30/2020
Dell Products L.P.	Secure Booting of Information Handling Systems Based on Validated Hardware	17/138045	12/30/2020
Dell Products L.P.	Validating Secure Modifications to Information Handling Systems	17/137976	12/30/2020
Dell Products L.P.	Validating Secure Delivery of Information Handling Systems	17/137903	12/30/2020
Dell Products L.P.	Validating Secure Assembly and Delivery of Information Handling Systems	17/137849	12/30/2020
Dell Products L.P.	CLUSTERING STORAGE SYSTEMS FOR SHARING OF DATA PATTERNS USED FOR DEDUPLICATION	17/136484	12/29/2020
Dell Products L.P.	Automatically Determining Storage System Data Breaches Using Machine Learning Techniques	17/135274	12/28/2020
Dell Products L.P.	Automatically Generating Conditional Instructions for Resolving Predicted System Issues Using	17/135249	12/28/2020

	Machine Learning Techniques		
Dell Products L.P.	Secure Data Collection for Validation of Installed Components of Information Handling Systems	17/135252	12/28/2020
Dell Products L.P.	Secure Identification of Components Installed in Information Handling System	17/135187	12/28/2020
Dell Products L.P.	Wi-Fi TWT for Bluetooth Traffic Persistence	17/134265	12/26/2020
Dell Products L.P.	Method For Adaptive Link Persistence In Intelligent Connectivity	17/133511	12/23/2020
Dell Products L.P.	Self-Describing System Using Single-Source/Multi-Destination Cable	17/132905	12/23/2020
Dell Products L.P.	Systems and Methods for Providing Secure Logic Device Authentication, Update, and Recovery	17/132783	12/23/2020
Dell Products L.P.	System and Method for Dynamically Disabling Haptic Feedback with Recognition of Pen on Touch Sensitive Area of an Information Handling System	17/130271	12/22/2020
Dell Products L.P.	SYSTEMS AND METHODS FOR SINGLE-WIRE MULTI-PROTOCOL DISCOVERY AND ASSIGNMENT TO PROTOCOL-AWARE PURPOSE-BUILT ENGINES	17/131300	12/22/2020
Dell Products L.P.	System and method to monitor, deploy, and evaluate the migration of on-premises application services to cloud model (hybrid/public)	17/131491	12/22/2020
Dell Products L.P.	Information Handling System with a Printed	17/128848	12/21/2020

	Circuit Board having an Embedded interconnect		
Dell Products L.P.	System and Method for Dynamic Configuration Setting Update of a BIOS Firmware Image	17/128289	12/21/2020
Dell Products L.P.	Multi-VPN multi link traffic routing	17/127249	12/18/2020
Dell Products L.P.	Dynamically Modifying Call Flow Management Using a Common Data Model Interface for Automated Call Distribution Systems	17/126291	12/18/2020
Dell Products L.P.	SYSTEM AND METHOD FOR COORDINATING GAMING HAPTIC RESPONSE ACROSS PERIPHERAL DEVICE ECOSYSTEM	17/127503	12/18/2020
Dell Products L.P.	Multilayer Encryption for User Privacy Compliance and Corporate Confidentiality	17/126070	12/18/2020
Dell Products L.P.	Systems and Methods for Securely Deploying a Collective Workspace across Multiple Local Management Agents	17/126073	12/18/2020
Dell Products L.P.	Creating and Handling Workspace Indicators of Compromise (IOC) based upon Configuration Drift	17/126122	12/18/2020
Dell Products L.P.	Trusted Local Orchestration of Workspaces	17/126077	12/18/2020
Dell Products L.P.	Workspace Deployment using a Secondary Trusted Device	17/126144	12/18/2020
Dell Products L.P.	CONTROLLING AN OPERATING TEMPERATURE OF A PROCESSOR TO REDUCE POWER USAGE AT AN INFORMATION HANDLING SYSTEM	17/126205	12/18/2020

Dell Products L.P.	SYSTEM AND METHOD FOR LOUVER-INTEGRATED DIRECTIONAL AIRFLOW FANS	17/126086	12/18/2020
Dell Products L.P.	Automated Networking Device Replacement System	17/126325	12/18/2020
Dell Products L.P.	PRESSURE SENSOR WITH MICROPHONE AND METAL OXIDE SENSOR OF A GAMING HEADSET MICROPHONE MOUTHPIECE	17/125762	12/17/2020
Dell Products L.P.	System and Method for Adaptive Automated Preset Audio Equalizer Settings	17/125177	12/17/2020
Dell Products L.P.	Self-Describing Cable	17/124774	12/17/2020
Dell Products L.P.	Efficient Storage of Key-Value Data with Schema Integration	17/125086	12/17/2020
Dell Products L.P.	Physical Infrastructure/Virtual Infrastructure Integration System	17/124276	12/16/2020
Dell Products L.P.	Fleet Remediation of Compromised Workspaces	17/124324	12/16/2020
Dell Products L.P.	Systems and Methods for Performing Self-Contained Posture Assessment from within a Protected Portable-Code Workspace	17/124295	12/16/2020
Dell Products L.P.	Systems and Methods for Self-Protecting and Self-Refreshing Workspaces	17/123814	12/16/2020
Dell Products L.P.	Aperiodically Overlapping Spiral-Wrapped Cable Shield System	17/123698	12/16/2020
Dell Products L.P.	SYSTEM AND METHOD FOR MANAGING VIRTUAL HARDWARE LICENSES OF HARDWARE RESOURCES	17/124393	12/16/2020

	ACCESSED VIA APPLICATION INSTANCES		
Dell Products L.P.	Information Handling System with Sensor Activated Battery Charge Level Indicator	17/122467	12/15/2020
Dell Products L.P.	System and Method to Adapt Memory Usage of Containerized Workspaces	17/120775	12/14/2020
Dell Products L.P.	Port Unavailability Remediation System	17/118959	12/11/2020
Dell Products L.P.	Information Handling System Speaker Mount Under a Transparent Housing Cover	17/119599	12/11/2020
Dell Products L.P.	Information Handling System Housing Cover Inflatable Seal	17/119584	12/11/2020
Dell Products L.P.	Information Handling System Visual Presentation with Audio Vector Based Information	17/119594	12/11/2020
Dell Products L.P.	Information Handling System Virtual and Physical Keyboard Position Coordination	17/119590	12/11/2020
Dell Products L.P.	System and Method for Dynamic Sensitivity Control for Interference Avoidance	17/118471	12/10/2020
Dell Products L.P.	Adaptive Direct Attached Hotplug Detection	17/117379	12/10/2020
Dell Products L.P.	METHOD AND SYSTEM FOR COMPOSED INFORMATION HANDLING SYSTEM REALLOCATION BASED ON PRIORITY	17/117028	12/9/2020
Dell Products L.P.	SYSTEM AND METHOD FOR BACKUP GENERATION USING COMPOSED SYSTEMS	17/116962	12/9/2020
Dell Products L.P.	SYSTEM AND METHOD FOR INTENT BASED DATA PROTECTION	17/116892	12/9/2020

Dell Products L.P.	SYSTEM AND METHOD FOR DYNAMIC DATA PROTECTION ARCHITECTURE	17/116924	12/9/2020
Dell Products L.P.	SYSTEM AND METHOD FOR UNIFIED INFRASTRUCTURE ARCHITECTURE	17/117034	12/9/2020
Dell Products L.P.	METHOD AND SYSTEM FOR COMPOSING SYSTEMS USING RESOURCE SETS	17/117038	12/9/2020
Dell Products L.P.	SYSTEM AND METHOD FOR MONITORING USE OF COMPUTING RESOURCES	17/116259	12/9/2020
Dell Products L.P.	SYSTEM AND METHOD FOR MANAGING RESOURCE ALLOCATIONS IN COMPOSED SYSTEMS	17/116777	12/9/2020
Dell Products L.P.	COMPOSABLE INFORMATION HANDLING SYSTEMS IN AN OPEN NETWORK USING ACCESS CONTROL MANAGERS	17/117067	12/9/2020
Dell Products L.P.	THIS PROVISIONING OF RESOURCES USING SCPS AND A BIDDING SYSTEM	17/116988	12/9/2020
Dell Products L.P.	SYSTEM AND METHOD FOR PERFORMING WORKLOADS USING COMPOSED SYSTEMS	17/116832	12/9/2020
Dell Products L.P.	SYSTEM AND METHOD FOR ALLOCATING RESOURCES TO PERFORM WORKLOADS	17/117054	12/9/2020
Dell Products L.P.	METHOD AND SYSTEM FOR	17/117047	12/9/2020

	MAINTAINING COMPOSED SYSTEMS		
Dell Products L.P.	DATA MIRRORING AND DATA MIGRATION BETWEEN STORAGE VOLUMES USING SYSTEM CONTROL PROCESSORS	17/117059	12/9/2020
Dell Products L.P.	SYSTEM AND METHOD FOR IDENTIFYING RESOURCES OF A COMPOSED SYSTEM	17/116870	12/9/2020
Dell Products L.P.	METHOD FOR CONSOLIDATING INFRACTURE DEPLOYMENT INCLUDING NETWORKING, OUT-OF-BAND MANAGEMENT, AND IN-BAND MANAGEMENT THROUGH A WEB GRAPHICAL USER INTERFACE	17/117014	12/9/2020
Dell Products L.P.	Data Encryption Key Management System	17/115998	12/9/2020
Dell Products L.P.	Multi-Domain Boot and Runtime Status Code Drift Detection	17/113372	12/7/2020
Dell Products L.P.	Information Handling System with Airflow and Acoustics Vane for Hard Disk Drive Throughput	17/113575	12/7/2020
Dell Products L.P.	Information Handling System Handle with Integrated Thermal Rejection System	17/113509	12/7/2020
Dell Products L.P.	Information Handling System Dynamic Thermal Behavior	17/113514	12/7/2020
Dell Products L.P.	Baffle to Change Cooling Air Flow Direction	17/113528	12/7/2020
Dell Products L.P.	Information Handling System Integrated Speaker	17/113524	12/7/2020

	with Variable Volume Sound Chamber		
Dell Products L.P.	Information Handling System with Articulated Cooling Fins Between Interleaved and Separated Positions	17/113518	12/7/2020
Dell Products L.P.	Adaptive Resource Allocation System and Method for a Target Application executed in an Information Handling System (IHS)	17/114164	12/7/2020
Dell Products L.P.	SYSTEM AND METHOD FOR INTEGRATION OF AN ANTENNA ELEMENT AND FRONT-END MODULE CO-LOCATED INTO A SPEAKER CHAMBER	17/112882	12/4/2020
Dell Products L.P.	SYSTEM FOR A SOLID STATE KEYBOARD AND TOUCHPAD WITH A SINGLE SHEET COVER FOR PROVIDING HAPTIC FEEDBACK	17/112869	12/4/2020
Dell Products L.P.	A method for managing content on dual screen devices	17/111593	12/4/2020
Dell Products L.P.	SYSTEM AND METHOD FOR KEYBOARD AND PALM REST THREE-DIMENSIONAL HAPTIC EXPERIENCE	17/112826	12/4/2020
Dell Products L.P.	THERMO-HAPTICS FOR A POINTING DEVICE FOR GAMING	17/112015	12/4/2020
Dell Products L.P.	Systems and Methods for Evaluating Security Risks using a Manufacturer-Signed Software Identification Manifest	17/111253	12/3/2020
Dell Products L.P.	SYSTEM AND METHOD FOR GESTURE ENABLEMENT AND	17/110754	12/3/2020

	INFORMATION PROVISIONING		
Dell Products L.P.	Systems and Methods for Bare-Metal or Pre-Boot User-Machine Authentication, Binding, and Entitlement Provisioning	17/110043	12/2/2020
Dell Products L.P.	Method to Dynamically Bias CPU Frequency Based on Application, Temperature and Acoustic and System Therefor	17/110073	12/2/2020
Dell Products L.P.	AUTOMATED SECURITY PROFILE MANAGEMENT FOR AN INFORMATION HANDLING SYSTEM	17/109823	12/2/2020
Dell Products L.P.	System and Method for Supporting Multiple Independent Silicon-Rooted Trusts Per System-on-a-Chip	17/109390	12/2/2020
Dell Products L.P.	Systems and Methods for Dynamic Adjustment of Workspaces Based on Available Local Hardware	17/107345	11/30/2020
Dell Products L.P.	Intention-Based Device Component Tracking System	17/106291	11/30/2020
Dell Products L.P.	METHOD AND APPARATUS FOR WIRELESS SIGNAL BASED LOCATION ENDPOINT TRIANGULATION USING 5G MMWAVE, LTE, AND WI-FI	17/107577	11/30/2020
Dell Products L.P.	SYSTEM AND METHOD FOR BEEMSTEERING ACQUISITION AND OPTIMIZATION IN AN ENHANCED REALITY ENVIRONMENT	17/107493	11/30/2020
Dell Products L.P.	Handling Away Messages with Intelligent Assistance Using Voice Services	17/106416	11/30/2020

Dell Products L.P.	CONTROLLING CHARGING OF COMPUTING DEVICE THROUGH PORTS CONNECTED TO EXTERNAL DEVICES	17/106410	11/30/2020
Dell Products L.P.	SYSTEMS AND METHODS FOR SINGLE-WIRE IN-BAND PULSE-ADDRESSABLE MULTIPLEXER	17/106434	11/30/2020
Dell Products L.P.	SYSTEMS AND METHODS FOR MANAGEMENT CONTROLLER CO-PROCESSOR HOST TO VARIABLE SUBSYSTEM PROXY	17/106390	11/30/2020
Dell Products L.P.	Secure Fibre Channel/NVME Fabric Communication System	17/107624	11/30/2020
Dell Products L.P.	System and Method for Re-Enumerating a Secured Drive Dynamically Within an Operating System	17/107209	11/30/2020
Dell Products L.P.	Fibre Channel Host Onboarding System	17/107322	11/30/2020
Dell Products L.P.	Asymmetric High-Speed Interconnect Routing Interposer	17/103421	11/24/2020
Dell Products L.P.	HOT-PLUGGED PCIE DEVICE CONFIGURATION SYSTEM	17/102591	11/24/2020
Dell Products L.P.	System and Method for Providing Granular Processor Performance Control	17/103111	11/24/2020
Dell Products L.P.	System and Method for Improving Reliability of an Information Handling System	17/101754	11/23/2020
Dell Products L.P.	Wire with unequal dimensions for cables in information handling systems	17/101343	11/23/2020

Dell Products L.P.	METHOD AND SYSTEM FOR INLINE DEDUPLICATION USING ERASURE CODING	17/100178	11/20/2020
Dell Products L.P.	COMMUNICATION WITH AN INFORMATION HANDLING SYSTEM AIR MOVER USING ENHANCED DATA-OVER-TACHOMETER SIGNAL PROTOCOL WITH VARIABLE READ AND WRITE COMMANDS	17/100510	11/20/2020
Dell Products L.P.	SYSTEMS AND METHODS FOR IN-BAND PULSE-ADDRESSABLE MULTIPLEXER	17/100445	11/20/2020
Dell Products L.P.	Curved-edge display covers and methods of making the same	17/100809	11/20/2020
Dell Products L.P.	System and Method to Secure a Narrow Borderless Display Panel Without Cover Glass	16/952249	11/19/2020
Dell Products L.P.	SYSTEM AND METHOD FOR FAN NOISE CANCELLER	16/952714	11/19/2020
Dell Products L.P.	METHOD FOR POWER BRAKE STAGGERING AND IN-RUSH SMOOTHING FOR MULTIPLE ENDPOINTS	16/952467	11/19/2020
Dell Products L.P.	Micro-Strand Transceiver Heat Dissipation System	16/952903	11/19/2020
Dell Products L.P.	Wireless Channel Selection Management System and Method of Using the Same	16/951095	11/18/2020
Dell Products L.P.	Multi-Band Simultaneous Switching System and Method of Using the Same	16/951068	11/18/2020
Dell Products L.P.	Thermally Conductive Poled Damping Assembly	16/951051	11/18/2020

Dell Products L.P.	Power Management System	16950572	11/17/2020
Dell Products L.P.	Method to Dynamically Adjust Display to Enhance Ambient Lighting in a Video Conference and System Therefor	16/950231	11/17/2020
Dell Products L.P.	AUTOMATED LINK AGGREGATION GROUP CONFIGURATION SYSTEM	17/098635	11/16/2020
Dell Products L.P.	Preventing Unauthorized Access to Non-Volatile Memory (NVM) Subsystem Namespaces.	17/099374	11/16/2020
Dell Products L.P.	Magnetic Dual Axis Hinge System and Method Therefor	17/097525	11/13/2020
Dell Products L.P.	Memory Thermal Management During Initialization of an Information Handling System	17/096571	11/12/2020
Dell Products L.P.	Memory Power Fault Resilience in Information Handling Systems	17/096720	11/12/2020
Dell Products L.P.	System and Method for Predictive Fan Speed Control and Management	17/096083	11/12/2020
Dell Products L.P.	Systems and Methods for Asynchronous Input-Output Scanning and Aggregation for Solid State Drive	17/096163	11/12/2020
Dell Products L.P.	Method and Apparatus to Distribute Current Indicator to Multiple End-Points	17/095180	11/11/2020
Dell Products L.P.	Optimizing Hybrid Cloud Usage	17/095307	11/11/2020
Dell Products L.P.	SWITCH-BASED INTER-DEVICE NOTATIONAL DATA MOVEMENT SYSTEM	17/094217	11/10/2020
Dell Products L.P.	Graphical User Interface (GUI) for Controlling Virtual Workspaces	17/093161	11/9/2020

	Produced Across Information Handling Systems (IHSs)		
Dell Products L.P.	Information Handling System Antenna Isolation with Integrated Cooling Fan	17/090406	11/5/2020
Dell Products L.P.	System and Method for Mitigating Analytics Loads Between Hardware Devices	17/090376	11/5/2020
Dell Products L.P.	System and Method for Turning Off a Display Device Based on Energy Usage	17/090049	11/5/2020
Dell Products L.P.	System and Method for Overdrive Setting Control on a Liquid Crystal Display	17/089339	11/4/2020
Dell Products L.P.	SYSTEMS AND METHODS FOR VARYING AN IMPEDANCE OF A CABLE	17/088306	11/3/2020
Dell Products L.P.	ADJUSTABLE VENTING RATIO MECHANISM FOR INFORMATION HANDLING SYSTEM	17/088250	11/3/2020
Dell Products L.P.	SYSTEMS AND METHODS FOR MODIFYING SECURITY OR PRIVACY MODE OF INFORMATION HANDLING SYSTEM PERIPHERALS	17/087940	11/3/2020
Dell Products L.P.	SYSTEMS AND METHODS FOR DYNAMIC CAMERA FILTERING	17/087912	11/3/2020
Dell Products L.P.	Systems and Methods for Distribution of Shared Content Based on Session Context	17/088188	11/3/2020
Dell Products L.P.	Chaos Engineering in Microservices Using a Service Mesh	17/086540	11/2/2020

Dell Products L.P.	SELECTIVELY CONTROLLING A MONITOR'S ON-SCREEN DISPLAY WITH A KEYBOARD OR MOUSE	17/087023	11/2/2020
Dell Products L.P.	Contextual Intelligence for Virtual Workspaces Produced Across Information Handling Systems (IHSs)	17/087034	11/2/2020
Dell Products L.P.	Dynamic Virtual Workspace with Contextual Control of Input/Output (I/O) Devices	17/086953	11/2/2020
Dell Products L.P.	SYSTEMS AND METHODS FOR ACHIEVING FASTER BOOT TIMES USING BIOS ATTRIBUTE MITIGATION	17/087021	11/2/2020
Dell Products L.P.	SYSTEMS AND METHODS FOR ADAPTIVE ELECTRONIC PRIVACY SCREEN BASED ON INFORMATION HANDLING SYSTEM CONTEXT	17/087242	11/2/2020
EMC IP Holding Company LLC	METHOD, DEVICE AND COMPUTER PROGRAM PRODUCT FOR STORAGE MANAGEMENT	16/588993	9/27/2019
EMC IP Holding Company LLC	METHOD, DEVICE AND COMPUTER PROGRAM PRODUCT FOR CONFIGURING SERVICE INSTANCE	16/588951	9/30/2019
EMC IP Holding Company LLC	METHOD, DEVICE AND COMPUTER PROGRAM PRODUCT FOR BACKUP MANAGEMENT	16/586863	9/30/2019
EMC IP Holding Company LLC	METHOD, DEVICE AND COMPUTER PROGRAM PRODUCT	16/588903	9/30/2019

	FOR STORAGE MANAGEMENT		
EMC IP Holding Company LLC	Method And System For Maximizing Performance Of A Storage System	17/161979	1/29/2021
EMC IP Holding Company LLC	MANAGING NODES OF A DISTRIBUTED APPLICATION	17/162249	1/29/2021
EMC IP Holding Company LLC	STORAGE SYSTEM CONFIGURATION MANAGMENT	17/162206	1/29/2021
EMC IP Holding Company LLC	Replacing the integrated laptop touchpad with a digitizer	17/161112	1/28/2021
EMC IP Holding Company LLC	WORKLOAD GENERATOR AND SIMULATOR FOR STORAGE CACHING SYSTEMS	17/160656	1/28/2021
EMC IP Holding Company LLC	RANK-CORRELATED PATTERNS FOR GUIDING HARDWARE DESIGN	17/160566	1/28/2021
EMC IP Holding Company LLC	Online heuristic sequentiality detection over I/O streams for cache systems in large address spaces	17/161252	1/28/2021
EMC IP Holding Company LLC	Maintaining retention policies in a block storage, multi-client DDUP domain	17/160783	1/28/2021
EMC IP Holding Company LLC	Forecasting Technology Phase Using Unsupervised Clustering with Wardley Maps	17/160782	1/28/2021
EMC IP Holding Company LLC	Secure Password Log in on Insecure Devices	17/161030	1/28/2021
EMC IP Holding Company LLC	Key Management and Key Policies for Data Encryption in a Storage Appliance	17/160981	1/28/2021

EMC IP Holding Company LLC	COPYING DATA BETWEEN STORAGE SYSTEMS	17/160465	1/28/2021
EMC IP Holding Company LLC	Cluster counters implemented on Lock Value Blocks	17/160545	1/28/2021
EMC IP Holding Company LLC	Novel Tool-Less Limited Rotation, Telescoping Fastener	17/161146	1/28/2021
EMC IP Holding Company LLC	SIMULATION FOR ALTERNATIVE COMMUNICATION	17/160949	1/28/2021
EMC IP Holding Company LLC	METHOD AND SYSTEM FOR VERIFYING SECRET DECRYPTION CAPABILITY OF ESCROW AGENTS	17/160680	1/28/2021
EMC IP Holding Company LLC	Pruned Model of Open Set Deep Neural Network for Efficient Critical-class Object Detection	17/161541	1/28/2021
EMC IP Holding Company LLC	SYSTEM AND METHOD FOR MANAGING MEDIA ACCESSES	17/160638	1/28/2021
EMC IP Holding Company LLC	FAILSAFE MECHANISM TO IMPORT SNAPSHOTS	17/161433	1/28/2021
EMC IP Holding Company LLC	A method to improve storage deduplication efficiency by predicting optimal rolling offsets in Sequential WRITES based on Empirical Distribution	17/160526	1/28/2021
EMC IP Holding Company LLC	Adaptive spares assignment for fast recovery of a disk failure	17/160490	1/28/2021
EMC IP Holding Company LLC	METHOD, ELECTRONIC DEVICE AND COMPUTER PROGRAM PRODUCT FOR MANAGING BACKUP SYSTEM	17/161298	1/28/2021

EMC IP Holding Company LLC	APPLICATION CRASH ANALYSIS TECHNIQUES WHEN MEMORY DUMP AND DEBUG SYMBOLS ARE NOT CO-LOCATED	17/160021	1/27/2021
EMC IP Holding Company LLC	Improving RAID reliability with a provisional spare disk	17/159282	1/27/2021
EMC IP Holding Company LLC	Secure, Low-Cost, Privacy-Preserving Biometric Card	17/160166	1/27/2021
EMC IP Holding Company LLC	Singular control path for Mainframe storage array control	17/159582	1/27/2021
EMC IP Holding Company LLC	ALERTING AND MANAGING DATA STORAGE SYSTEM PORT OVERLOAD DUE TO HOST PATH FAILURES	17/159329	1/27/2021
EMC IP Holding Company LLC	AI/ML approach for DDOS prevention on 5G CBRS networks	17/160164	1/27/2021
EMC IP Holding Company LLC	METHOD AND SYSTEM FOR PERFORMING DATA PROTECTION MANAGEMENT USING AN ADD-ON APPLICATION PROGRAMMING INTERFACE	17/160365	1/27/2021
EMC IP Holding Company LLC	METHOD AND SYSTEM FOR IDENTIFYING AND DELETING RECORDS ON HOSTS	17/160353	1/27/2021
EMC IP Holding Company LLC	METHOD AND SYSTEM FOR MANAGING CHANGES OF RECORDS ON HOSTS	17/160340	1/27/2021
EMC IP Holding	METHOD AND SYSTEM FOR PROACTIVE DATA	17/160323	1/27/2021

Company LLC	PROTECTION OF VIRTUAL MACHINES		
EMC IP Holding Company LLC	Disaster Recovery	17/159385	1/27/2021
EMC IP Holding Company LLC	Tiered Persistent Memory	17/159327	1/27/2021
EMC IP Holding Company LLC	METHOD FOR DISTRIBUTING VIRTUAL VISUAL CONTENT	17/159412	1/27/2021
EMC IP Holding Company LLC	METHOD, ELECTRONIC DEVICE AND COMPUTER PROGRAM PRODUCT FOR STORAGE MANAGEMENT	17/159715	1/27/2021
EMC IP Holding Company LLC	Cyber Immunity system as a biological self-recognition model on operating systems	17/158650	1/26/2021
EMC IP Holding Company LLC	Method And System For Replication	17/158536	1/26/2021
EMC IP Holding Company LLC	METHOD AND SYSTEM FOR COMPRESSION IN BLOCK-BASED STORAGE SYSTEMS	17/158615	1/26/2021
EMC IP Holding Company LLC	Signal of Risk Access Control	17/158556	1/26/2021
EMC IP Holding Company LLC	Efficient compression packing algorithm applying Greedy First-fit with caching and ranking method in storage sub-system	17/157204	1/25/2021
EMC IP Holding Company LLC	Storing Digital Data in Storage Devices Using Smart Contract and Blockchain Technology	17/155609	1/22/2021
EMC IP Holding	Securely Archiving Digital Data in DNA Storage As Blocks in a Blockchain	17/155552	1/22/2021

Company LLC			
EMC IP Holding Company LLC	OPPORTUNITY CONVERSION RATE CALCULATOR	17/155476	1/22/2021
EMC IP Holding Company LLC	Metro Cluster for Virtual Volumes	17/155381	1/22/2021
EMC IP Holding Company LLC	RECOVERY OF PAGE DESCRIPTION BLOCKS BASED ON CONTEXT	17/156030	1/22/2021
EMC IP Holding Company LLC	Write First to Winner in a Metro Cluster	17/155367	1/22/2021
EMC IP Holding Company LLC	SIMILARITY DEDUPLICATION	17/155224	1/22/2021
EMC IP Holding Company LLC	Intelligent Monitoring of Backup and Recovery Activity in Data Storage Systems	17/156035	1/22/2021
EMC IP Holding Company LLC	Storing Digital Data in DNA Storage Using Blockchain and Destination-Side Deduplication Using Smart Contracts	17/155505	1/22/2021
EMC IP Holding Company LLC	MAINTAINING ONLINE ACCESS TO DATA STORED IN A PLURALITY OF STORAGE DEVICES DURING A HARDWARE UPGRADE	17/155328	1/22/2021
EMC IP Holding Company LLC	AUTOMATED FAILOVER BACKUP RECONFIGURATION MANAGEMENT FOR STORAGE SYSTEMS	17/155277	1/22/2021
EMC IP Holding Company LLC	DISASTER RECOVERY IN A STREAMING DATA STORAGE SYSTEM	17/154274	1/21/2021
EMC IP Holding	Method and Apparatus for Deterministically	17/154332	1/21/2021

Company LLC	Identifying Sets of Snapshots on a Storage System		
EMC IP Holding Company LLC	TECHNIQUES FOR WORKLOAD BALANCING	17/154191	1/21/2021
EMC IP Holding Company LLC	RETRIEVAL OF PORTIONS OF STORAGE DEVICE ACCESS DATA INDICATING ACCESS STATE CHANGES	17/154056	1/21/2021
EMC IP Holding Company LLC	FAST CONVERGING GRADIENT COMPRESSOR FOR FEDERATED LEARNING	17/154243	1/21/2021
EMC IP Holding Company LLC	protecting databases in a clusterless availability group	17/154268	1/21/2021
EMC IP Holding Company LLC	CONFIGURING HOST ACCESS FOR VIRTUAL VOLUMES	17/154000	1/21/2021
EMC IP Holding Company LLC	ASYMMETRIC FULFILLMENT OF REMOTE PROCEDURE CALLS BY MULTI-CORE SYSTEMS	17/154179	1/21/2021
EMC IP Holding Company LLC	INDICATING OPTIMIZED AND NON-OPTIMIZED PATHS TO HOSTS USING NVME-OF IN A METRO CLUSTER STORAGE SYSTEM	17/154027	1/21/2021
EMC IP Holding Company LLC	Parity Allocation for a Virtual Redundant Array of Independent Disks	17/153602	1/20/2021
EMC IP Holding Company LLC	TRANSFERRING APPLICATIONS FROM OVERUTILIZED ARRAYS OF COMPUTER SYSTEMS TO UNDERUTILIZED ARRAYS OF COMPUTER SYSTEMS	17/153621	1/20/2021

EMC IP Holding Company LLC	CENTRALIZED HIGH-AVAILABILITY FLOWS EXECUTION FRAMEWORK	17/153135	1/20/2021
EMC IP Holding Company LLC	DETECTION AND MITIGATION OF SLOW DRAIN ISSUES USING RESPONSE TIMES AND STORAGE-SIDE LATENCY VIEW	17/152854	1/20/2021
EMC IP Holding Company LLC	RECOVERING CONSISTENCY OF A RAID (REDUNDANT ARRAY OF INDEPENDENT DISKS) METADATA DATABASE	17/153108	1/20/2021
EMC IP Holding Company LLC	[Re-submission 122005] Stochastic risk scoring with counterfactual analysis for storage capacity	17/153294	1/20/2021
EMC IP Holding Company LLC	protecting databases in a distributed availability group	17/153756	1/20/2021
EMC IP Holding Company LLC	STORAGE SYSTEM HAVING RAID STRIPE METADATA	17/153219	1/20/2021
EMC IP Holding Company LLC	Ordered Event Stream Event Annulment in an Ordered Event Stream Storage System	17/152558	1/19/2021
EMC IP Holding Company LLC	Framed Event Access in an Ordered Event Stream Storage System	17/152544	1/19/2021
EMC IP Holding Company LLC	Mapped Redundant Array of Independent Nodes Employing Mapped Reliability Groups for Data Storage	17/152537	1/19/2021
EMC IP Holding Company LLC	Synchronous Destage of Write Data from Shared Global Memory to Back-End Storage Resources	17/151794	1/19/2021

EMC IP Holding Company LLC	Method and Apparatus for Generating Simulated Test IO Operations	17/151776	1/19/2021
EMC IP Holding Company LLC	ZERO BLOCK ELIMINATION REPORTING FOR A FILE SYSTEM	17/151833	1/19/2021
EMC IP Holding Company LLC	USING CHECKSUMS FOR MINING STORAGE DEVICE ACCESS DATA	17/151876	1/19/2021
EMC IP Holding Company LLC	[Resubmission - 122006] Method to suggest best SCM configuration based on resource proportionality in a de-duplication based backup storage.	17/152371	1/19/2021
EMC IP Holding Company LLC	DISTRIBUTED RAID REBUILD	17/152270	1/19/2021
EMC IP Holding Company LLC	SNAPSHOT PERFORMANCE OPTIMIZATIONS	17/152169	1/19/2021
EMC IP Holding Company LLC	DATA COPY OFFLOAD COMMAND SUPPORT ACROSS MULTIPLE STORAGE ACCESS PROTOCOLS	17/151784	1/19/2021
EMC IP Holding Company LLC	Unified Host-Based Data Migration	17/151447	1/18/2021
EMC IP Holding Company LLC	DATA STORAGE SYSTEM WITH MULTIPLE-SIZE OBJECT ALLOCATOR FOR DISK CACHE	17/151413	1/18/2021
EMC IP Holding Company LLC	Multi-Tenant Data Protection Using Tenant-Based Token Validation and Data Encryption	17/151424	1/18/2021
EMC IP Holding Company LLC	CREATING HIGH AVAILABILITY STORAGE VOLUMES FOR SOFTWARE CONTAINERS	17/151325	1/18/2021

EMC IP Holding Company LLC	MULTI-PATH LAYER CONFIGURED FOR DETECTION AND MITIGATION OF SLOW DRAIN ISSUES IN A STORAGE AREA NETWORK	17/151302	1/18/2021
EMC IP Holding Company LLC	Basic Input/Output System Protection Using Multi-Factor Authentication Based on Digital Identity Values	17/151420	1/18/2021
EMC IP Holding Company LLC	Firmware Protection Using Multi-Chip Storage of Firmware Image	17/151418	1/18/2021
EMC IP Holding Company LLC	Tracking Virus Footprint in Data Copies	17/150344	1/15/2021
EMC IP Holding Company LLC	Metadata implementation while writing to Object Store	17/150199	1/15/2021
EMC IP Holding Company LLC	Effective tiering of data protected in object store using object lookup table	17150077	1/15/2021
EMC IP Holding Company LLC	DATA PROCESSING SYSTEM USING SKELETON VIRTUAL VOLUMES FOR IMPROVED SYSTEM STARTUP	17/150041	1/15/2021
EMC IP Holding Company LLC	A method to make the disk failure predictor interpretable	17/150221	1/15/2021
EMC IP Holding Company LLC	ORDERING DATA STREAM EVENTS IN A STREAMING DATA STORAGE PLATFORM	17/148955	1/14/2021
EMC IP Holding Company LLC	Predictable Member Assignment for Expanding Flexible RAID System	17/148814	1/14/2021
EMC IP Holding Company LLC	Automatically Discovering and Securing Identifying Connected Systems	17/149238	1/14/2021

EMC IP Holding Company LLC	Accelerating Backup by Writing to Performance Ranked Memory	17/149146	1/14/2021
EMC IP Holding Company LLC	SCHEDULING STORAGE SYSTEM TASKS TO PROMOTE LOW LATENCY AND SUSTAINABILITY	17/148872	1/14/2021
EMC IP Holding Company LLC	Efficient garbage collection mechanism for deduped cloud objects in a completely full or nearly full cloud storage	17/148421	1/13/2021
EMC IP Holding Company LLC	Efficient method to protect backup application's (dedupe and non-dedupe) cloud objects from getting deleted by malicious attackers	17/148415	1/13/2021
EMC IP Holding Company LLC	Verification of valid client library binary file on connecting to server system	17/148420	1/13/2021
EMC IP Holding Company LLC	DEPENDENCY RESOLUTION FOR LAZY SNAPSHOTS IN STORAGE CLUSTER WITH DELTA LOG BASED ARCHITECTURE	17/147740	1/13/2021
EMC IP Holding Company LLC	BACKUP WORKLOAD PREDICTION AND NOTIFICATION FOR STORAGE SYSTEMS	17/147822	1/13/2021
EMC IP Holding Company LLC	Method and Apparatus for Determining and Depicting Effective Storage Capacity of a Storage System	17/146889	1/12/2021
EMC IP Holding Company LLC	Method and Apparatus for Selective Compression of Data During Initial Synchronization of Mirrored Resources	17/146805	1/12/2021
EMC IP Holding Company LLC	UTILIZING A HYBRID TIER WHICH MIXES SOLID STATE DEVICE STORAGE AND HARD DISK DRIVE STORAGE	17/146783	1/12/2021

EMC IP Holding Company LLC	ALTERNATIVE STORAGE NODE COMMUNICATION CHANNEL USING STORAGE DEVICES GROUP IN A DISTRIBUTED STORAGE SYSTEM	17/146529	1/12/2021
EMC IP Holding Company LLC	FRAMEWORK TO QUANTIFY SECURITY IN DEVOPS DEPLOYMENTS	17/147015	1/12/2021
EMC IP Holding Company LLC	A Dynamic QoS Management Mechanism for Persistent Memory on De-dup Storage System	17/146819	1/12/2021
EMC IP Holding Company LLC	METHOD, ELECTRONIC DEVICE, AND COMPUTER PROGRAM PRODUCT FOR INFORMATION PROCESSING	17/146558	1/12/2021
EMC IP Holding Company LLC	EVENT LEVEL RETENTION MANAGEMENT FOR DATA STREAMS	17/145588	1/11/2021
EMC IP Holding Company LLC	FORKING DATA STREAMS IN A STREAMING DATA STORAGE PLATFORM	17/145581	1/11/2021
EMC IP Holding Company LLC	RPC-LESS LOCKING MECHANISM BASED ON RDMA CAW FOR STORAGE CLUSTER WITH ACTIVE-ACTIVE ARCHITECTURE	17/145625	1/11/2021
EMC IP Holding Company LLC	SYNCHRONIZING DATA COPY OPERATIONS FOR STORAGE SYSTEM WITH ACTIVE-ACTIVE STORAGE CONFIGURATION	17/145658	1/11/2021
EMC IP Holding Company LLC	REDISTRIBUTION OF PROCESSING GROUPS BETWEEN SERVER NODES BASED ON HARDWARE RESOURCE UTILIZATION	17/145646	1/11/2021

EMC IP Holding Company LLC	DATA REBALANCING AFTER A SCALE-OUT EVENT IN A DATA STORAGE SYSTEM	17/144314	1/8/2021
EMC IP Holding Company LLC	COMPACTING DATA STREAMS IN A STREAMING DATA STORAGE PLATFORM	17/143500	1/7/2021
EMC IP Holding Company LLC	LEVERAGING GARBAGE COLLECTION FOR RAID TRANSFORMATION	17/143339	1/7/2021
EMC IP Holding Company LLC	SECURE TOKEN-BASED COMMUNICATIONS BETWEEN A HOST DEVICE AND A STORAGE SYSTEM	17/143560	1/7/2021
EMC IP Holding Company LLC	STORAGE SYSTEM CONFIGURED WITH STEALTH DRIVE GROUP	17/143358	1/7/2021
EMC IP Holding Company LLC	TECHNIQUES FOR WORKLOAD BALANCING USING DYNAMIC PATH STATE MODIFICATIONS	17/142557	1/6/2021
EMC IP Holding Company LLC	PERFORMING FILE-BASED TIME SERIES MANAGEMENT	17/141535	1/5/2021
EMC IP Holding Company LLC	Efficient object store usage for data protection use cases	17/141475	1/5/2021
EMC IP Holding Company LLC	Architecture : application agnostic data backup direct to object store	17/140855	1/4/2021
EMC IP Holding Company LLC	ENFORCING QUALITY OF SERVICE IN A VIRTUALIZED STORAGE ENVIRONMENT	17/140316	1/4/2021
EMC IP Holding Company LLC	METHOD FOR PROTECTING EDGE DEVICE TRUST SCORE	17/139374	12/31/2020

EMC IP Holding Company LLC	Pre-emptive Container Load-balancing, Auto-Scaling and Placement	17/139210	12/31/2020
EMC IP Holding Company LLC	User-Based Data Tiering	17/137804	12/30/2020
EMC IP Holding Company LLC	TECHNIQUES FOR WORKLOAD BALANCING USING DYNAMIC PATH STATE MODIFICATIONS	17/137988	12/30/2020
EMC IP Holding Company LLC	METHOD, ELECTRONIC DEVICE, AND COMPUTER PROGRAM PRODUCT FOR INFORMATION PROCESSING	17/137625	12/30/2020
EMC IP Holding Company LLC	DISTRIBUTED SITE DATA RECOVERY IN A GEOGRAPHICALLY DISTRIBUTED DATA STORAGE ENVIRONMENT	17/136867	12/29/2020
EMC IP Holding Company LLC	COMPUTER INTERACTION METHOD, DEVICE, AND COMPUTER PRODUCT	17/136794	12/29/2020
EMC IP Holding Company LLC	Signal of Trust Access Prioritization	17/134903	12/28/2020
EMC IP Holding Company LLC	Best Outcome AIOps Modeling with Data Confidence Fabrics	17/134898	12/28/2020
EMC IP Holding Company LLC	ApplicationTemplate for Application Consistent Backup and Restore of Databases Applications in Kubernetes	17/135658	12/28/2020
EMC IP Holding Company LLC	METHOD, ELECTRONIC DEVICE, AND COMPUTER PROGRAM PRODUCT FOR APPLICATION MIGRATION	17/134778	12/28/2020

EMC IP Holding Company LLC	Intelligent Automatic Support	17/133283	12/23/2020
EMC IP Holding Company LLC	Hardware Device Integrity Validation Using Platform Configuration Values	17/132001	12/23/2020
EMC IP Holding Company LLC	RESUME SUPPORT FOR CLOUD STORAGE OPERATIONS	17/132042	12/23/2020
EMC IP Holding Company LLC	USER CONTEXT MIGRATION BASED ON COMPUTATION GRAPH IN ARTIFICIAL INTELLIGENCE APPLICATION EXECUTING IN EDGE COMPUTING ENVIRONMENT	17/132344	12/23/2020
EMC IP Holding Company LLC	CLOUD LAUNCH WIZARD	17/130896	12/22/2020
EMC IP Holding Company LLC	TIME BASED SLA COMPLIANCE FOR DISASTER RECOVERY OF BUSINESS CRITICAL VMS	17/130903	12/22/2020
EMC IP Holding Company LLC	A Userspace Split Data-Centric Heterogeneous Computing Architecture	17/130878	12/22/2020
EMC IP Holding Company LLC	Data Protection for high risk applications in IoT	17/131508	12/22/2020
EMC IP Holding Company LLC	Intelligent Data Restorability using Algorithmic Randomness Model	17/131450	12/22/2020
EMC IP Holding Company LLC	DISTRIBUTED HOT SPACE IN A DATA STORAGE SERVER	17/128765	12/21/2020
EMC IP Holding Company LLC	LOCK CONTENTION RESOLUTION FOR ACTIVE-ACTIVE REPLICATION	17/128419	12/21/2020

	PERFORMED IN CONJUNCTION WITH JOURNAL RECOVERY		
EMC IP Holding Company LLC	METHOD, ELECTRONIC DEVICE, AND COMPUTER PROGRAM PRODUCT FOR DEPLOYING MACHINE LEARNING MODEL	17/129222	12/21/2020
EMC IP Holding Company LLC	Achieving synthetic full to object store	17/126582	12/18/2020
EMC IP Holding Company LLC	Conditional Appends in an Ordered Event Stream Storage System	17/127724	12/18/2020
EMC IP Holding Company LLC	Hybrid Snapshots of a Global Namespace	17/127887	12/18/2020
EMC IP Holding Company LLC	ESTIMATING WORKER NODES NEEDED FOR PERFORMING GARBAGE COLLECTION OPERATIONS	17/124962	12/17/2020
EMC IP Holding Company LLC	Deferred lock assertion and cache invalidation during lock coordinator rebalance.	17/124694	12/17/2020
EMC IP Holding Company LLC	System and Method for Efficient Data Collection Based on Data Access pattern for Reporting in Large Scale Multi Tenancy Environment	17/125541	12/17/2020
EMC IP Holding Company LLC	Efficient dictionary data structure to find similar backup clients	17/125536	12/17/2020
EMC IP Holding Company LLC	Gold Image Library Management System to Reduce Backup Storage and Bandwidth Utilization	17/124957	12/17/2020
EMC IP Holding Company LLC	METHOD, ELECTRONIC DEVICE, AND COMPUTER PROGRAM PRODUCT	17/125696	12/17/2020

	FOR DATA STREAM PROCESSING		
EMC IP Holding Company LLC	RESERVATION HANDLING IN CONJUNCTION WITH SWITCHING BETWEEN STORAGE ACCESS PROTOCOLS	17/123347	12/16/2020
EMC IP Holding Company LLC	DEFERRED RECLAMATION OF INVALIDATED ENTRIES ASSOCIATED WITH REPLICATION IN A LOG-STRUCTURED ARRAY	17/123525	12/16/2020
EMC IP Holding Company LLC	MANAGING NETWORK SHARES UTILIZING FILESYSTEM SNAPSHOTS COMPRISING METADATA CHARACTERIZING NETWORK SHARES	17/122175	12/15/2020
EMC IP Holding Company LLC	MANAGING STORAGE RESOURCES ALLOCATED TO COPIES OF APPLICATION WORKLOADS	17/122188	12/15/2020
EMC IP Holding Company LLC	An intelligent solution to reduce data re-writing in cloud tier backup system	17/122260	12/15/2020
EMC IP Holding Company LLC	ANALYSIS OF DEEP-LEVEL CAUSE OF FAULT OF STORAGE MANAGEMENT	17/122833	12/15/2020
EMC IP Holding Company LLC	Tracking Users Modifying a File	17/120475	12/14/2020
EMC IP Holding Company LLC	Protecting Large Distributed File Systems	17/121590	12/14/2020
EMC IP Holding Company LLC	Using blockchain method to protect backup system in cloud	17/120737	12/14/2020

EMC IP Holding Company LLC	METHOD, DEVICE, AND PROGRAM PRODUCT FOR MANAGING INDEX OF STREAMING DATA STORAGE SYSTEM	17/121653	12/14/2020
EMC IP Holding Company LLC	METHOD, ELECTRONIC DEVICE, AND COMPUTER PROGRAM PRODUCT FOR MANAGING STORAGE SYSTEM	17/121643	12/14/2020
EMC IP Holding Company LLC	Storage System Backup and De-Duplication	17/119627	12/11/2020
EMC IP Holding Company LLC	File Lifetime Tracking For Cloud-Based Object Stores	17/118585	12/10/2020
EMC IP Holding Company LLC	SYSTEMS AND METHODS FOR SELECTING DEVICES FOR BACKUP AND RESTORE OPERATIONS FOR VIRTUAL MACHINES	17/117001	12/9/2020
EMC IP Holding Company LLC	FAULT TOLERANT CLUSTER DATA HANDLING	17/114804	12/8/2020
EMC IP Holding Company LLC	PERFORMANCE-DRIVEN MOVEMENT OF APPLICATIONS BETWEEN CONTAINERS WITH DIFFERENT ACCESS PROTOCOLS	17/114854	12/8/2020
EMC IP Holding Company LLC	PERFORMANCE-DRIVEN ACCESS PROTOCOL SWITCHING FOR A LOGICAL STORAGE DEVICE	17/113184	12/7/2020
EMC IP Holding Company LLC	A process that utilizes machine learning based constructs towards compressing binary files in a storage array environment.	17/113237	12/7/2020

EMC IP Holding Company LLC	METHOD, ELECTRONIC DEVICE AND COMPUTER PROGRAM PRODUCT FOR STORAGE MANAGEMENT	17/114042	12/7/2020
EMC IP Holding Company LLC	TECHNIQUES FOR IDENTIFYING MISCONFIGURATIONS AND EVALUATING AND DETERMINING STORAGE TIER DISTRIBUTIONS	17/112345	12/4/2020
EMC IP Holding Company LLC	TECHNIQUES FOR ESTIMATING DEDUPLICATION BETWEEN STORAGE VOLUMES	17/110672	12/3/2020
EMC IP Holding Company LLC	DATA STORAGE OPTIMIZATIONS USING VARIABLE SLICE SIZE	17/110466	12/3/2020
EMC IP Holding Company LLC	CENTRALIZED RETENTION AND BACKUP DELETIONS	17/109336	12/2/2020
EMC IP Holding Company LLC	ORDERING EVENTS WITHIN A STREAMING DATA STORAGE PLATFORM	17/109523	12/2/2020
EMC IP Holding Company LLC	SIGNAL EVENTS FOR SYNCHRONIZATION TO FACILITATE MODE CHANGES IN A STREAMING DATA STORAGE PLATFORM	17/109546	12/2/2020
EMC IP Holding Company LLC	Client-side Compression	17/110024	12/2/2020
EMC IP Holding Company LLC	METHOD, DEVICE, AND COMPUTER PROGRAM PRODUCT FOR EDGE RESOURCE AGGREGATION	17/108640	12/1/2020
EMC IP Holding Company LLC	Method of "Outcome Driven Data Exploration" for data sets, business questions, and pipelines based on similarity	17/107358	11/30/2020

	mapping of business needs and asset use overlap		
EMC IP Holding Company LLC	ANY POINT IN TIME REPLICATION TO THE CLOUD	17/107393	11/30/2020
EMC IP Holding Company LLC	Multi-Party Prediction Using Feature Contribution Values	17/106253	11/30/2020
EMC IP Holding Company LLC	MANAGING HOST CONNECTIVITY TO A DATA STORAGE SYSTEM	17/106988	11/30/2020
EMC IP Holding Company LLC	ARRAY DRIVEN FABRIC PERFORMANCE NOTIFICATIONS FOR MULTI-PATHING DEVICES	17/106970	11/30/2020
EMC IP Holding Company LLC	AUTOMATED SEAMLESS MIGRATION ACROSS ACCESS PROTOCOLS FOR A LOGICAL STORAGE DEVICE	17/106788	11/30/2020
EMC IP Holding Company LLC	Differential Snapshot Without Array Support	17/107229	11/30/2020
EMC IP Holding Company LLC	Distributed backup using local access	17/106511	11/30/2020
EMC IP Holding Company LLC	BOOT FROM SAN OPERATION SUPPORT ON MULTI-PATHING DEVICES	17/106435	11/30/2020
EMC IP Holding Company LLC	Explaining Random Forests through Node Labeling and Distribution of Subtrees	17/107782	11/30/2020
EMC IP Holding Company LLC	Secret Storage Using Escrow Agents	17/107786	11/30/2020
EMC IP Holding Company LLC	An efficient method to build a backup scheduling plan for a server aware of	17/107728	11/30/2020

	client availability and criticality		
EMC IP Holding Company LLC	METHOD, DEVICE, AND PROGRAM PRODUCT FOR KEYSTROKE PATTERN ANALYSIS	17/106551	11/30/2020
EMC IP Holding Company LLC	Device Protection Using Configuration Lockdown Mode	17/105747	11/27/2020
EMC IP Holding Company LLC	Hardware System Protection Using Verification of Hardware Digital Identity Values	17/105749	11/27/2020
EMC IP Holding Company LLC	METHOD AND SYSTEM FOR MANAGING VIRTUAL DATACENTERS	17/104527	11/25/2020
EMC IP Holding Company LLC	Home-SmartMedia-MEC with Cloud Marketplace	17/104524	11/25/2020
EMC IP Holding Company LLC	Method of "Outcome Driven Data Exploration" for data sets, business questions, and pipelines based on similarity mapping of business needs and asset use overlap	17/104518	11/25/2020
EMC IP Holding Company LLC	METHOD, SYSTEM, AND COMPUTER PROGRAM PRODUCT FOR DEPLOYING APPLICATION	17/105030	11/25/2020
EMC IP Holding Company LLC	Automatically Determining Supported Capabilities in Server Hardware Devices	17/102690	11/24/2020
EMC IP Holding Company LLC	DATA PROTECTION MANAGEMENT OF APPLICATION INSTANCE EXECUTING IN ACCORDANCE WITH VIRTUAL VOLUME-BASED STORAGE SYSTEM	17/103184	11/24/2020
EMC IP Holding	Hydratable Neural Networks for devices	17/102769	11/24/2020

Company LLC			
EMC IP Holding Company LLC	Managing restore workloads using Weibull Modulus	17/101326	11/23/2020
EMC IP Holding Company LLC	DYNAMICALLY MAPPING DATA CENTERS USING MICRO-LOCATION RFID SENSORS	17/101297	11/23/2020
EMC IP Holding Company LLC	METHOD, ELECTRONIC DEVICE, AND COMPUTER PROGRAM PRODUCT FOR ADJUSTING COMPUTING LOAD	17/101052	11/23/2020
EMC IP Holding Company LLC	CONTINUOUS REPLICATION AND GRANULAR APPLICATION LEVEL REPLICATION	16/953571	11/20/2020
EMC IP Holding Company LLC	SERVERLESS APPLICATION OPERATIONAL RECOVERY AND MANIFEST CREATION	16/953640	11/20/2020
EMC IP Holding Company LLC	DYNAMIC SLICE ASSIGNMENT IN A DISTRIBUTED STORAGE SYSTEM	16/952996	11/19/2020
EMC IP Holding Company LLC	SELECTIVE DEDUPLICATION IN A DISTRIBUTED STORAGE SYSTEM	16/952639	11/19/2020
EMC IP Holding Company LLC	METHOD AND APPROACH FOR PAGINATION OVER DATA STREAM WITH SLIDING WINDOW	16/951575	11/18/2020
EMC IP Holding Company LLC	METHOD AND APPROACH FOR PAGINATION OVER DATA STREAM WITH SLIDING WINDOW	16/951571	11/18/2020
EMC IP Holding Company LLC	Coordinated Data Protection for Multiple Networking Devices	17/099434	11/16/2020

EMC IP Holding Company LLC	Multi-Cloud Framework for Authentication of Data Requests	17/097638	11/13/2020
EMC IP Holding Company LLC	METHOD AND DEVICE FOR DEDUPLICATION	17/096237	11/12/2020
EMC IP Holding Company LLC	METHOD, ELECTRONIC DEVICE, AND COMPUTER PROGRAM PRODUCT FOR STORAGE MANAGEMENT	17/094430	11/10/2020
EMC IP Holding Company LLC	SYSTEMS AND METHODS FOR DEVICE THERMAL MANAGEMENT USING DYNAMIC RANKING OF DEVICE COOLING NEEDS	17/092812	11/9/2020
EMC IP Holding Company LLC	SYSTEM AND METHOD FOR RESILIENT BACKUP GENERATION	17/091199	11/6/2020
EMC IP Holding Company LLC	Multi-Cloud Framework for Data Protection Using Threshold-Based File Reconstruction	17/089801	11/5/2020
EMC IP Holding Company LLC	HOST BUS ADAPTOR (HBA) VIRTUALIZATION AWARENESS FOR EFFECTIVE INPUT-OUTPUT LOAD BALANCING	17/089516	11/4/2020
EMC IP Holding Company LLC	Slab Memory Allocator with Dynamic Buffer Resizing	17/088192	11/3/2020
EMC IP Holding Company LLC	ENVIRONMENT INDEPENDENT DATA PROTECTION IN A HIGHLY AVAILABLE DATA SYSTEM	17/086866	11/2/2020
EMC IP Holding Company LLC	SYSTEM AND METHOD FOR CAPACITY PREDICTION	16/260713	1/29/2019

EMC IP Holding Company LLC	SYSTEM AND METHOD FOR OPTIMAL ORDER MIGRATION INTO A CACHE BASED DEDUPLICATED STORAGE ARRAY	16/263657	1/31/2019
EMC IP Holding Company LLC	In-Place RAID Conversion System and Method	16/263767	1/31/2019