TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

ETAS ID: TM757114

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

CONVEYING PARTY DATA

Name	Formerly	Execution Date	Entity Type
COHESITY, INC.		09/22/2022	Corporation: DELAWARE

RECEIVING PARTY DATA

Name:	Silicon Valley Bank, as Administrative Agent
Street Address:	3003 Tasman Drive, HF 150
City:	Santa Clara
State/Country:	CALIFORNIA
Postal Code:	95054
Entity Type:	Corporation: CALIFORNIA

PROPERTY NUMBERS Total: 11

Property Type	Number	Word Mark
Registration Number:	5471402	SPANFS
Registration Number:	5317852	ACTIVERX
Registration Number:	5172335	S
Registration Number:	5134308	SNAPTREE
Registration Number:	4778066	COHESITY
Registration Number:	6112348	COHESITY
Serial Number:	90033875	HELIOS
Serial Number:	90033868	HELIOS
Registration Number:	6401369	H
Serial Number:	90230605	H
Serial Number:	90230584	S

CORRESPONDENCE DATA

Fax Number:

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:	2023704750
Email:	ipteam@cogencyglobal.com
Correspondent Name:	Joanna McCall
Address Line 1:	1025 Connecticut Ave NW, Suite 712
Address Line 2:	Cogency Global Inc.

OP $290.00 5471402

Address Line 4:	Washington, D.C. 20036
ATTORNEY DOCKET NUMBER:	1790190
NAME OF SUBMITTER:	Naomi Sakata, Corporate Paralegal
SIGNATURE:	/Naomi Sakata/
DATE SIGNED:	09/23/2022

Total Attachments: 30

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INTELLECTUAL PROPERTY SECURITY AGREEMENT

This **INTELLECTUAL PROPERTY SECURITY AGREEMENT** is entered into as of September 22, 2022 by and between each of the signatories hereto (together with any other entity that may become a party hereto as provided herein, each a "*Grantor*" and, collectively, the "*Grantors*"), and **SILICON VALLEY BANK,** as administrative agent for the Lenders (in such capacity, the "*Administrative Agent*").

RECITALS

A.   Administrative Agent and the Lenders have agreed to make certain advances of money and to extend certain financial accommodations to Grantor (the "*Loans*") in the amounts and manner set forth in that certain Credit Agreement, dated as of the date hereof, by and among **COHESITY, INC.,** a Delaware corporation (the "*Borrower*"), the several banks and other financial institutions or entities from time to time parties thereto (each a "*Lender*" and, collectively, the "*Lenders*") and Administrative Agent (as amended, restated, amended and restated, supplemented, restructured or otherwise modified from time to time, the "*Credit Agreement*"). Unless otherwise specified, capitalized terms used herein are used as defined in the Credit Agreement or the Guarantee and Collateral Agreement (as defined below), as applicable.

B.   In consideration of the agreement by Administrative Agent and Lenders to make the Loans to Borrower under the Credit Agreement, Grantors have entered into that certain Guarantee and Collateral Agreement in favor of Administrative Agent, dated as of even date herewith (as the same may be amended, modified or supplemented from time to time, the "*Guarantee and Collateral Agreement*").

C.   Administrative Agent and Lenders are willing to make the Loans to Borrower, but only upon the condition, among others, that Grantors shall grant to Administrative Agent a security interest in certain Copyrights, Copyright Licenses, Trademarks, Trademark Licenses, Patents and Patent Licenses (in each case, as defined in the Guarantee and Collateral Agreement) to secure the obligations of the Grantors under the Credit Agreement and the Guarantee and Collateral Agreement.

D.   Pursuant to the terms of each of the Credit Agreement and the Guarantee and Collateral Agreement, Borrower and the other Grantors have granted to Administrative Agent, for the benefit of the Secured Parties, a security interest in all of such Grantor's right, title and interest, whether presently existing or hereafter acquired, in, to and under all of the Collateral.

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, and intending to be legally bound, as collateral security for the prompt and complete payment when due of its Obligations under the Credit Agreement and Loan Documents, Grantor hereby represents, warrants, covenants and agrees as follows:

AGREEMENT

To secure its Obligations under the Credit Agreement and Loan Documents, Grantor grants and pledges to Administrative Agent a security interest in all of Grantor's right, title and interest

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in, to and under its Intellectual Property (other than Excluded Assets) (including without limitation those Copyrights, Patents, and Trademarks listed on Exhibits A, B, and C hereto), and including without limitation all proceeds thereof (such as, by way of example but not by way of limitation, license royalties and proceeds of infringement suits), the right to sue for past, present and future infringements, all rights corresponding thereto throughout the world and all re-issues, divisions continuations, renewals, extensions and continuations-in-part thereof.

This security interest is granted in conjunction with the security interest granted to Administrative Agent under the Guarantee and Collateral Agreement. The rights and remedies of Administrative Agent with respect to the security interest granted hereby are in addition to those set forth in the Credit Agreement and the other Loan Documents, and those which are now or hereafter available to Administrative Agent as a matter of law or equity. Each right, power and remedy of Administrative Agent provided for herein or in the Credit Agreement or any of the Loan Documents, or now or hereafter existing at law or in equity shall be cumulative and concurrent and shall be in addition to every right, power or remedy provided for herein and the exercise by Administrative Agent of any one or more of the rights, powers or remedies provided for in this Intellectual Property Security Agreement, the Credit Agreement or any of the other Loan Documents, or now or hereafter existing at law or in equity, shall not preclude the simultaneous or later exercise by any person, including Administrative Agent, of any or all other rights, powers or remedies. Notwithstanding anything provided for hereunder, the provisions of the Guarantee and Collateral Agreement shall supersede and control over any conflicting or inconsistent provisions herein.

THIS AGREEMENT AND THE RIGHTS AND OBLIGATIONS OF THE PARTIES HEREUNDER SHALL BE GOVERNED BY, AND CONSTRUED AND ENFORCED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW YORK WITHOUT REGARD TO THE CONFLICT OF LAW RULES THEREOF (OTHER THAN SECTION 5-1401 OF THE NEW YORK GENERAL OBLIGATIONS LAW).

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IN WITNESS WHEREOF, the parties have caused this Intellectual Property Security Agreement to be duly executed by its officers thereunto duly authorized as of the first date written above.

GRANTORS:

COHESITY, INC.

By: _____

Name: Robert O'Donovan

Title: Chief Financial Officer

[Signature Page to Intellectual Property Security Agreement]

ADMINISTRATIVE AGENT:

SILICON VALLEY BANK

By: _____

Name: Thuy Bui

Title: Managing Director

[Signature Page to Intellectual Property Security Agreement]

EXHIBIT A

COPYRIGHTS

Registered Copyrights

N/A

In the ordinary course of business, the Borrower does maintain inbound licenses to third party copyrights.

Pending Copyright Applications

N/A

Registered Copyrights and Pending Copyright Applications Licensed to Loan Parties

N/A

EXHIBIT B

PATENTS

Issued Patents

See Annex B

Pending Patent Applications

See Annex B

Issued Patents and Pending Patent Applications Licensed to Loan Parties

See Annex B

Annex B

Issued Patents and Pending Patent Applications

(attached)

Docket No.	Title	Country	Inventor(s)	Status	Application No.	Filed Date/date lodged	Patent No.	Issue Date
COHEP001	SNAPSHOT ARCHIVE MANAGEMENT	United States of America	Venkata Ranga Radhanikanth Guturi,Tushar Mahata,Praveen Kumar Yarlagadda	Issued	15/689,704	08/29/2017	10835632	4/28/2020
COHEP001C1	SNAPSHOT ARCHIVE MANAGEMENT	United States of America	Venkata Ranga Radhanikanth Guturi,Tushar Mahata,Praveen Kumar Yarlagadda	Issued	16/811,813	03/06/2020	11249940	2/15/2022
COHEP001C2	SNAPSHOT ARCHIVE MANAGEMENT	United States of America	Venkata Ranga Radhanikanth Guturi,Tushar Mahata,Praveen Kumar Yarlagadda	Application	17/570,205	01/06/2022		
COHEP001EP	SNAPSHOT ARCHIVE MANAGEMENT	European	Venkata Ranga Radhanikanth Guturi,Tushar Mahata,Praveen Kumar Yarlagadda	Published	18193316.2	08/22/2018		
COHEP001PCT	SNAPSHOT ARCHIVE MANAGEMENT	Patent Cooperation Treaty	Venkata Ranga Radhanikanth Guturi,Tushar Mahata,Praveen Kumar Yarlagadda	expired	PCT/US18/45973	08/09/2018		
COHEP002	REMOTELY MOUNTED FILE SYSTEM WITH STUBS	United States of America	Venkata Ranga Radhanikanth Guturi,Tushar Mahata,Praveen Kumar Yarlagadda	Issued	15/721,429	09/29/2017	10719484	7/21/2020
COHEP002c1	REMOTELY MOUNTED FILE SYSTEM WITH STUBS	United States of America	Venkata Ranga Radhanikanth Guturi,Tushar Mahata,Praveen Kumar Yarlagadda	Issued	16/898,015	06/10/2020	11372824	6/28/2022
COHEP002c2	REMOTELY MOUNTED FILE SYSTEM WITH STUBS	United States of America	Venkata Ranga Radhanikanth Guturi,Tushar Mahata,Praveen Kumar Yarlagadda	Application	17/747,794	05/18/2022		
COHEP002+	REMOTELY MOUNTED FILE SYSTEM WITH STUBS	United States of America	Venkata Ranga Radhanikanth Guturi,Tushar Mahata,Praveen Kumar Yarlagadda	Provisional Priority Claimed	62/555,456	09/07/2017		
COHEP002DE	REMOTELY MOUNTED FILE SYSTEM WITH STUBS	Germany	Venkata Ranga Radhanikanth Guturi,Tushar Mahata,Praveen Kumar Yarlagadda	Issued - Validation Completed	60 2018 013 976.1 (from EP EP3454231)	04/01/2021	60 2018 013 976.1	4/28/2020
COHEP002DIV (EP)	REMOTELY MOUNTED FILE SYSTEM WITH STUBS	European Patent Office	Venkata Ranga Radhanikanth Guturi,Tushar Mahata,Praveen Kumar Yarlagadda	Application	21162558.7	03/15/2021		
COHEP002EP	REMOTELY MOUNTED FILE SYSTEM WITH STUBS	European	Venkata Ranga Radhanikanth Guturi,Tushar Mahata,Praveen Kumar Yarlagadda	Issued - grant formalities - DON'T COUNT	18192697.3	09/05/2018	EP3454231	3/17/2021
COHEP002FR	REMOTELY MOUNTED FILE SYSTEM WITH STUBS	France	Venkata Ranga Radhanikanth Guturi,Tushar Mahata,Praveen Kumar Yarlagadda	Issued - Validation Completed	18192697.3	04/01/2021	EP3454231	3/17/2021
COHEP002GB	REMOTELY MOUNTED FILE SYSTEM WITH STUBS	Great Britain	Venkata Ranga Radhanikanth Guturi,Tushar Mahata,Praveen Kumar Yarlagadda	Issued - Validation Completed	18192697.3	04/06/2021	EP3454231	3/17/2021
COHEP002NL	REMOTELY MOUNTED FILE SYSTEM WITH STUBS	Netherlands	Venkata Ranga Radhanikanth Guturi,Tushar Mahata,Praveen Kumar Yarlagadda	Issued - Validation Completed	18192697.3	04/01/2021	EP3454231	3/17/2021

Reference	Title	Country	Inventors	Status	Application Number	Filing Date	Patent Number	Issue Date
COHEP002PCT	REMOTELY MOUNTED FILE SYSTEM WITH STUBS	Patent Cooperation Treaty	Venkata Ranga Radhanikanth Guturi,Tushar Mahata,Praveen Kumar Yarlagadda	Expired	PCT/US18/46724	08/14/2018		
COHEP003	PROVIDING CONSISTENCY IN A DISTRIBUTED DATA STORE	United States of America	Sashikanth Madduri,Sachin Jain,Jeevitha Kirubanandam	Issued	15/702,527	09/12/2017	10671482	6/2/2020
COHEP003PCT	PROVIDING CONSISTENCY IN A DISTRIBUTED DATA STORE	Patent Cooperation Treaty	Sashikanth Madduri,Sachin Jain,Jeevitha Kirubanandam	expired	PCT/US18/48184	08/27/2018		
COHEP004	REPLICATION OF DATA USING CHUNK IDENTIFIERS	United States of America	Anirvan Duttagupta,Apurv Gupta,Dinesh Pathak	issued	15/664,738	07/31/2017	10747778	8/18/2020
cohep004c1	REPLICATION OF DATA USING CHUNK IDENTIFIERS	United States of America	Anirvan Duttagupta,Apurv Gupta,Dinesh Pathak	abandoned	16/911,118	06/24/2020		
COHEP004PCT	REPLICATION OF DATA USING CHUNK IDENTIFIERS	Patent Cooperation Treaty	Anirvan Duttagupta,Apurv Gupta,Dinesh Pathak	expired	PCT/US18/39852	06/27/2018		
COHEP005	RESTORING A DATABASE USING A FULLY HYDRATED BACKUP	United States of America	Abhijit Chakankar,Warren Shen,Manoj Singhal	issued	15/693,013	08/31/2017	10776213	9/15/2020
COHEP005AUW	RESTORING A DATABASE USING A FULLY HYDRATED BACKUP	Australia (from PCT)	Abhijit Chakankar,Warren Shen,Manoj Singhal	Issued	2018324425	03/26/2020	2018324425	7/28/2022
COHEP005c1	RESTORING A DATABASE USING A FULLY HYDRATED BACKUP	United States of America	Abhijit Chakankar,Warren Shen,Manoj Singhal	Application	16/941,172	07/28/2020		
COHEP005CNW	RESTORING A DATABASE USING A FULLY HYDRATED BACKUP	China (from PCT)	Abhijit Chakankar,Warren Shen,Manoj Singhal	Application	2018800713931	04/30/2020		
COHEP005DE	RESTORING A DATABASE USING A FULLY HYDRATED BACKUP	Germany	Abhijit Chakankar,Warren Shen,Manoj Singhal	Issued - Validation Completed	181903317.0	06/24/2020	6020180055514.2 (from EP3451173)	7/2/2020
COHEP005EP	RESTORING A DATABASE USING A FULLY HYDRATED BACKUP	European	Abhijit Chakankar,Warren Shen,Manoj Singhal	Granted EP- DON'T COUNT	181903317.0	08/22/2018	EP3451173	6/24/2020
COHEP005EP-DIV	RESTORING A DATABASE USING A FULLY HYDRATED BACKUP	European	Abhijit Chakankar,Warren Shen,Manoj Singhal	Allowed	201816693.1	06/23/2020		6/24/2020
COHEP005FR	RESTORING A DATABASE USING A FULLY HYDRATED BACKUP	France	Abhijit Chakankar,Warren Shen,Manoj Singhal	Issued - Validation Complete	181903317.0	08/03/2020	EP3451173	6/24/2020
COHEP005GB	RESTORING A DATABASE USING A FULLY HYDRATED BACKUP	Great Britain	Abhijit Chakankar,Warren Shen,Manoj Singhal	Issued - Validation Complete	181903317.0	08/24/2020	EP3451173	6/24/2020
COHEP005INW	RESTORING A DATABASE USING A FULLY HYDRATED BACKUP	India (from PCT)	Abhijit Chakankar,Warren Shen,Manoj Singhal	Application	202047013813	03/30/2020		
COHEP005NL	RESTORING A DATABASE USING A FULLY HYDRATED BACKUP	Netherlands	Abhijit Chakankar,Warren Shen,Manoj Singhal	Issued - Validation Complete	181903317.1	07/23/2020	EP3451173	6/24/2020
COHEP005PCT	RESTORING A DATABASE USING A FULLY HYDRATED BACKUP	Patent Cooperation Treaty	Abhijit Chakankar,Warren Shen,Manoj Singhal	expired	PCT/US18/45997	08/09/2018		
COHEP006	FAST AND OPTIMIZED RESTORE USING DELTA INFORMATION	United States of America	Rupesh Bajaj	Issued	15/964,678	04/27/2018	10261885	4/16/2019
COHEP006C1	FAST AND OPTIMIZED RESTORE USING DELTA INFORMATION	United States of America	Rupesh Bajaj	Issued	16/276,346	02/14/2019	10871487	6/2/2020
COHEP006c2	FAST AND OPTIMIZED RESTORE USING DELTA INFORMATION	United States of America	Rupesh Bajaj	Issued	16/855,873	04/22/2020	11372725	6/28/2022
COHEP006c3	FAST AND OPTIMIZED RESTORE USING DELTA INFORMATION	United States of America	Rupesh Bajaj	Application	17/745,327	05/16/2022		
COHEP006EP	FAST AND OPTIMIZED RESTORE USING DELTA INFORMATION	European	Rupesh Bajaj	Application	19792100	10/23/2020		
COHEP006PCT	FAST AND OPTIMIZED RESTORE USING DELTA INFORMATION	Patent Cooperation Treaty	Rupesh Bajaj	Expired	PCT/US19/26333	4/8/2019		

Ref	Title	Country	Inventors	Status	Application No.	Filing Date	Patent/Pub. No.	Issue Date
COHEP007	BACKUP AND RESTORE OF LINKED CLONE VM	United States of America	Rupesh Bajaj	Issued	15/991,766	05/29/2018	10275321	4/30/2019
COHEP007C1	BACKUP AND RESTORE OF LINKED CLONE VM	United States of America	Rupesh Bajaj	Issued	16/355,372	03/15/2019	10,838,826	11/17/2020
COHEP007C2	BACKUP AND RESTORE OF LINKED CLONE VM	United States of America	Rupesh Bajaj	Issued	17/069,604	10/13/2020	11281544	3/22/2022
COHEP007C3	BACKUP AND RESTORE OF LINKED CLONE VM	United States of America	Rupesh Bajaj	Application - allow to go abandoned	17/672,265	02/15/2022		
COHEP007DE	BACKUP AND RESTORE OF LINKED CLONE VM	Germany	Rupesh Bajaj	Issued - Validation Complete			EP3785122	
COHEP007EP	BACKUP AND RESTORE OF LINKED CLONE VM	European	Rupesh Bajaj	Granted EP- DON'T COUNT	19732491.6	11/28/2020	EP3785122	3/22/2022
COHEP007FR	BACKUP AND RESTORE OF LINKED CLONE VM	France	Rupesh Bajaj	Issued - Validation Complete	19732491.6		EP3785122	
COHEP007NE	BACKUP AND RESTORE OF LINKED CLONE VM	Netherlands	Rupesh Bajaj	Issued - Validation Complete	19732491.6		EP3785122	
COHEP007PCT	BACKUP AND RESTORE OF LINKED CLONE VM	Patent Cooperation Treaty	Rupesh Bajaj	Expired	PCT/US2019/032927	05/17/2019		
COHEP007UK	BACKUP AND RESTORE OF LINKED CLONE VM	United Kingdom	Rupesh Bajaj	Issued - Validation Complete				
COHEP008C2	INTEGRATED HIERARCHICAL STORAGE MANAGEMENT	United States of America	Zheng Cai,Vijay Pasikanti,Ganesha Shanmuganathan	allowed	17/348,406	06/15/2021		
COHEP008C1	INTEGRATED HIERARCHICAL STORAGE MANAGEMENT	United States of America	Zheng Cai,Vijay Pasikanti,Ganesha Shanmuganathan	Issued	16/533,356	08/06/2019	11150830	10/19/2021
COHEP008	INTEGRATED HIERARCHICAL STORAGE MANAGEMENT	United States of America	Zheng Cai,Vijay Pasikanti,Ganesha Shanmuganathan	Issued	16/115,351	08/28/2018	10416919	9/17/2019
COHEP009PCT	FAST MIGRATION OF METADATA	Patent Cooperation Treaty	Sachin Jain,Venkatesh Pallipadi;Sharath Kumar Naeni	Expired	PCT/US19/43967	07/29/2019		
COHEP009EP	FAST MIGRATION OF METADATA	European Patent Office	Sachin Jain,Venkatesh Pallipadi;Sharath Kumar Naeni	Application	19753227.8	01/29/2021		
COHEP009C2	FAST MIGRATION OF METADATA	United States of America	Sachin Jain,Venkatesh Pallipadi;Sharath Kumar Naeni	Application	17,111,076	12/03/2020		
COHEP009C1	FAST MIGRATION OF METADATA	United States of America	Sachin Jain,Venkatesh Pallipadi;Sharath Kumar Naeni	Issued	16/270,257	02/07/2019	10,891,067	1/12/2021
COHEP009	FAST MIGRATION OF METADATA	United States of America	Sachin Jain,Venkatesh Pallipadi;Sharath Kumar Naeni	Issued	16/101,091	08/10/2018	10254996	4/9/2019

Docket	Title	Country	Inventors	Status	Serial No.	Filing Date	Patent No.	Issue Date
COHEP010	INCREMENTAL VIRTUAL MACHINE METADATA EXTRACTION	United States of America	Chinmaya Manjunath,Anirvan Gupta,Sidharth Mishra,Zhihuan Qui	issued	16/110,314	08/23/2018	10534759	1/14/2020
COHEP010C1	INCREMENTAL VIRTUAL MACHINE METADATA EXTRACTION	United States of America	Chinmaya Manjunath,Anirvan Gupta,Sidharth Mishra,Zhihuan Qiu	issued	16/705,078	12/05/2019	11176102	11/16/2021
COHEP010C2	INCREMENTAL VIRTUAL MACHINE METADATA EXTRACTION	United States of America	Chinmaya Manjunath,Anirvan Gupta,Sidharth Mishra,Zhihuan Qiu	Application	17/489,536	09/29/2021		
COHEP011	Using a Storage System to Optimize and Maintain the Metadata Associated with a Plurality of Small Files (SMALL FILE OPTIMIZATION AND GARBAGE COLLECTION)	United States of America	Apurv Gupta,Anirvan Duttagupta	issued	16/426,390	5/30/2019	10949384	3/16/2021
COHEP011+	Using a Storage System to Optimize and Maintain the Metadata Associated with a Plurality of Small Files (SMALL FILE OPTIMIZATION AND GARBAGE COLLECTION)	United States of America	Apurv Gupta,Anirvan Duttagupta	Provisional Priority Claimed	62/693,742	07/03/2018		
COHEP011c1	Using a Storage System to Optimize and Maintain the Metadata Associated with a Plurality of Small Files (SMALL FILE OPTIMIZATION AND GARBAGE COLLECTION)	United States of America	Apurv Gupta,Anirvan Duttagupta	Application	17/174,103	2/11/2021		
COHEP011EP	Using a Storage System to Optimize and Maintain the Metadata Associated with a Plurality of Small Files (SMALL FILE OPTIMIZATION AND GARBAGE COLLECTION)	European Patent Office	Apurv Gupta,Anirvan Duttagupta	Allowed	19740444.5	01/27/2021		
COHEP011PCT	Using a Storage System to Optimize and Maintain the Metadata Associated with a Plurality of Small Files (SMALL FILE OPTIMIZATION AND GARBAGE COLLECTION)	Patent Cooperation Treaty	Apurv Gupta,Anirvan Duttagupta	Expired	PCT/US19/38771	06/24/2019		
COHEP012	LARGE CONTENT FILE OPTIMIZATION	United States of America	Zhihuan Qiu,Ganesha Shanmuganathan	issued	16/024,107	06/29/2018	10664461	5/26/2020
COHEP012C1	LARGE CONTENT FILE OPTIMIZATION	United States of America	Zhihuan Qiu,Ganesha Shanmuganathan	Allowed	16/881,942	05/22/2020		
COHEP012EP	LARGE CONTENT FILE OPTIMIZATION	European Patent Office	Zhihuan Qiu,Ganesha Shanmuganathan	Application	19740445.2	01/27/2021		
COHEP012PCT	LARGE CONTENT FILE OPTIMIZATION	Patent Cooperation Treaty	Zhihuan Qiu,Ganesha Shanmuganathan	Expired	PCT/US19/38772	06/24/2019		
COHEP013+	MANAGEMENT OF SECONDARY STORAGES AND APPLICATIONS	United States of America	Anubhav Gupta,Subramanian Sethumadhavan,Samual Krish Ravichandran,Mahesh Kumar,Akshit Poddar,Suresh Bysani Venkata Naga,Manvendra Singh Tomar,Naga Venkata Sai Indubhaskar Jupudi,Woojae Lee,Sudhir Srinivas	Provisional Priority Claimed	62/730,458	09/12/2018		
COHEP014	MULTI-NODE REMOVAL	United States of America	Sharath Kumar Naeni,Anirvan Duttagupta,Anubhav Gupta,Ganesha Shanmuganathan,Zhihuan Qiu	issued	16/155,796	10/09/2018	10613780	4/7/2020

ID	Title	Country	Inventors	Status	Application No.	Filing Date	Patent No.	Issue Date
COHEP015	SOFTWARE-DEFINED PLATFORM	United States of America	Lintu Thomas Sasshikanth Madduri,Cundong Yang,Sanal Pillai	Abandoned	16/201,693	11/27/2018		
COHEP016	UTILIZING VIRTUALIZATION CONTAINERS TO ACCESS A REMOTE SECONDARY STORAGE SYSTEM	United States of America	Woojae Lee,Akshit Poddar,Suresh Bysani Venkata Naga,Sudhir Srinivas	Issued	16/226,335	12/19/2018	10523778	12/31/2019
COHEP017	CLOUD EDITION AND RETRIEVE	United States of America	Venkata Ranga Radhanikanth Guturi,Tushar Mahata,Praveen Kumar Yarlagadda	Issued	16/186,934	11/12/2018	10656876	5/19/2020
COHEP017c1	CLOUD EDITION AND RETRIEVE	United States of America	Venkata Ranga Radhanikanth Guturi,Tushar Mahata,Praveen Kumar Yarlagadda	Issued	16/832,552	03/27/2020	11354065	6/7/2022
COHEP017c2	CLOUD EDITION AND RETRIEVE	United States of America	Venkata Ranga Radhanikanth Guturi,Tushar Mahata,Praveen Kumar Yarlagadda	Application	17/739,515	05/09/2022		
COHEP018	MULTI-FORMAT MIGRATION FOR NETWORK ATTACHED STORAGE DEVICES AND VIRTUAL MACHINES	United States of America	Zheng Cai,Rupesh Bajaj,Chinmaya Manjunath,Anand Arun,Markose Thomas	Issued	16/257,689	01/25/2019	10620883	4/14/2020
COHEP018+	MULTI-FORMAT RESTORATION FOR NETWORK ATTACHED STORAGE DEVICES AND VIRTUAL MACHINES	United States of America	Zheng Cai,Rupesh Bajaj,Chinmaya Manjunath,Anand Arun,Markose Thomas	Provisional Priority Claimed	62/788,335	01/04/2019		
COHEP019	RESTORATION OF SPECIFIED CONTENT FROM AN ARCHIVE	United States of America	Prashant Podge,Markose Thomas,Venkata Ranga Radhanikanth Guturi,Akshat Agarwal,Praveen Kumar Yarlagadda	Issued	16/299,060	03/11/2019	11321192	5/3/2022
COHEP019C1	RESTORATION OF SPECIFIED CONTENT FROM AN ARCHIVE	United States of America	Prashant Podge,Markose Thomas,Venkata Ranga Radhanikanth Guturi,Akshat Agarwal,Praveen Kumar Yarlagadda	Application	17/709,153	03/30/2022		
COHEP020	PACKET-BASED DIFFERENTIAL BACKUP OF NETWORK-ATTACHED STORAGE DEVICE CONTENT	United States of America	Prashant Podge,Sunil Moolchandani,Mohit Aron,Markose Thomas	Issued	16/246,367	01/11/2019	10769033	9/8/2020
COHEP020c1	PACKET-BASED DIFFERENTIAL BACKUP OF NETWORK-ATTACHED STORAGE DEVICE CONTENT	United States of America	Prashant Podge,Sunil Moolchandani,Mohit Aron,Markose Thomas	Issued	16/935,548	07/22/2020	11,237,923	2/1/2022
COHEP020C2	PACKET-BASED DIFFERENTIAL BACKUP OF NETWORK-ATTACHED STORAGE DEVICE CONTENT	United States of America	Prashant Podge,Sunil Moolchandani,Mohit Aron,Markose Thomas	Application	17/553558	12/16/2021		
COHEP021	POINT-IN-TIME DATABASE RESTORATION USING A REDUCED DATASET	United States of America	Rupesh Bajaj,Sunil Moolchandani,Sandeep Tandekar,Vivek Velankar	Issued	16/252,491	01/18/2019	10628270	4/21/2020
COHEP022	DEPLOYING A CLOUD INSTANCE OF A USER VIRTUAL MACHINE	United States of America	Venkata Ranga Radhanikanth Guturi,Tushar Mahata,Praveen Kumar Yarlagadda,Vipin Gupta	Issued	16/287,214	02/27/2019	10810035	10/20/2020
COHEP022c1	DEPLOYING A CLOUD INSTANCE OF A USER VIRTUAL MACHINE	United States of America	Venkata Ranga Radhanikanth Guturi,Tushar Mahata,Praveen Kumar Yarlagadda,Vipin Gupta	Application	17/017,157	09/10/2020		
COHEP023	CLUSTER CLAIM	United States of America	Anubhav Gupta,Mahesh Kumar,Samual Krish Ravichandran,Subramanian Sethumadhavan,Sudhir Srinivas	Issued	16/206,670	11/30/2018	10389704	8/20/2019

Docket	Title	Country	Inventors	Status	Number	Filing Date	Patent Number	Issue Date
COHEP023C1	Cluster Claim	United States of America	Anubhav Gupta,Mahesh Kumar,Samual Krish Ravichandran,Subramanian Sethumadhavan,Sudhir Srinivas	Issued	16/455,413	06/27/2019	10944740	03/09/2021
COHEP023C2	Cluster Claim	United States of America	Anubhav Gupta,Mahesh Kumar,Samual Krish Ravichandran,Subramanian Sethumadhavan,Sudhir Srinivas	allowed	17/156,076	01/22/2021		
COHEP024	ESTABLISHING A PERSISTENT CONNECTION WITH A REMOTE SECONDARY STORAGE SYSTEM	United States of America	Suresh Bysani Venkata Naga,Sudhir Srinivas,Anubhav Gupta	Issued	16/226,366	12/19/2018	10466933	11/5/2019
COHEP025	UNIFIED METADATA SEARCH	United States of America	Anubhav Gupta,Subramanian Sethumadhavan,Naga Venkata Sai Indubhaskar Jupudi,Jeffrey Howard,Manvendra Singh Tomar,Yu-Shen Ng	allowed	16/368,684	03/28/2019		
COHEP026	EFFICIENT DATABASE MIGRATION USING AN INTERMEDIARY SECONDARY STORAGE SYSTEM	United States of America	Abhijit Chakankar,Manoj Singha	issued	16/250,828	01/17/2019	10942902	03/09/2021
COHEP026AUW	EFFICIENT DATABASE MIGRATION USING AN INTERMEDIARY SECONDARY STORAGE SYSTEM	Australia (from PCT)	Abhijit Chakankar,Manoj Singhal,Warren Shen,Sashikanth Madduri	Application	2020208400	07/06/2021		
COHEP026C1	EFFICIENT DATABASE MIGRATION USING AN INTERMEDIARY SECONDARY STORAGE SYSTEM	United States of America	Abhijit Chakankar,Manoj Singhal,Warren Shen,Sashikanth Madduri	Application	17/161,382	01/28/2021		
COHEP026CNW	EFFICIENT DATABASE MIGRATION USING AN INTERMEDIARY SECONDARY STORAGE SYSTEM	China (from PCT)	Abhijit Chakankar,Manoj Singhal,Warren Shen,Sashikanth Madduri	Application	2020800095128	07/15/2021		
COHEP026EP	EFFICIENT DATABASE MIGRATION USING AN INTERMEDIARY SECONDARY STORAGE SYSTEM	EPO (from PCT)	Abhijit Chakankar,Manoj Singhal,Warren Shen,Sashikanth Madduri	Application	207078869.2	07/16/2021		
COHEP026INW	EFFICIENT DATABASE MIGRATION USING AN INTERMEDIARY SECONDARY STORAGE SYSTEM	India (from PCT)	Abhijit Chakankar,Manoj Singhal,Warren Shen,Sashikanth Madduri	Application	2021470031623	07/14/2021		
COHEP026PCT	EFFICIENT DATABASE MIGRATION USING AN INTERMEDIARY SECONDARY STORAGE SYSTEM	Patent Cooperation Treaty	Abhijit Chakankar,Manoj Singhal,Warren Shen,Sashikanth Madduri	Expired	PCT/US20/13746	01/15/2020		
COHEP029	CENTRAL STORAGE MANAGEMENT INTERFACE SUPPORTING NATIVE USER INTERFACE VERSIONS	United States of America	Subramanian Sethumadhavan,Jeffrey Howard,Mahesh Kumar,David Coblentz	issued	16/368,694	03/28/2019	10795699	10/6/2020
COHEP029c1	CENTRAL STORAGE MANAGEMENT INTERFACE SUPPORTING NATIVE USER INTERFACE VERSIONS	United States of America	Subramanian Sethumadhavan,Jeffrey Howard,Mahesh Kumar,David Coblentz	issued	16/991,948	08/12/2020	11442752	9/13/2022
COHEP030	MALICIOUS SOFTWARE DETECTION	United States of America	Prashant Guarav,Sidharth Mishra,Karandeep Singh,Anubhav Gupta,Sudhir Srinivas,Apurv Gupta Nagapramod Mandagere	issued	16/372,230	4/1/2019	10850146	5/12/2020
COHEP030+	MALICIOUS SOFTWARE DETECTION	United States of America	Prashant Guarav,Sidharth Mishra,Karandeep Singh,Anubhav Gupta,Sudhir Srinivas	Provisional Priority Claimed	62/778,669	12/12/2018		
COHEP030c1	MALICIOUS SOFTWARE DETECTION	United States of America	Prashant Guarav,Sidharth Mishra,Karandeep Singh,Anubhav Gupta,Sudhir Srinivas,Apurv Gupta Nagapramod Mandagere	issued	16/832,503	3/27/2020	10943011	03/09/2021

Reference	Title	Country	Inventors	Status	Application No.	Filing Date	Patent/Pub. No.	Issue Date
COHEP030C2	MALICIOUS SOFTWARE DETECTION	United States of America	Prashant Gaurav,Sidharth Mishra,Karandeep Singh,Anubhav Gupta,Sudhir Srinivas,Apurv Gupta,Nagapramod Mandagere	Application	17/156,050	1/22/2021		
COHEP031	Indexing a Relationship Structure of a Filesystem	United States of America	Apurv Gupta,Akshat Agarwal	Issued	16/427,791	05/31/2019	10769025	9/8/2020
COHEP031+	EFFICIENT FILESYSTEM TREE EXTRACTION FROM DISK IMAGES	United States of America	Apurv Gupta,Akshat Agarwal	Provisional Priority Claimed	62/793,702	01/17/2019		
COHEP031c1	Indexing a Relationship Structure of a Filesystem	United States of America	Apurv Gupta,Akshat Agarwal	Issued	16/941,219	07/28/2020	11288128	3/29/2022
COHEP031c2	Indexing a Relationship Structure of a Filesystem	United States of America	Apurv Gupta,Akshat Agarwal	Application	17/680,792	02/25/2022		
COHEP032	USING A SECONDARY STORAGE SYSTEM TO MAINTAIN FUNCTIONALITY OF A DATABASE DURING DATABASE MIGRATION	United States of America	Abhijit Chakankar,Manoj Singhal,Warren Shen,Sashikanth Madduri,Rupesh Bajaj,Vivek Velankar,Sandeep Tandekar,Sunil Moolchandani,Apollo Aguilan Tanting,Aditya Tandon	Issued	16/255,643	1/23/2019	10849952	5/12/2020
COHEP032C1	USING A SECONDARY STORAGE SYSTEM TO MAINTAIN FUNCTIONALITY OF A DATABASE DURING DATABASE MIGRATION	United States of America	Abhijit Chakankar,Manoj Singhal,Warren Shen,Sashikanth Madduri,Rupesh Bajaj,Vivek Velankar,Sandeep Tandekar,Sunil Moolchandani,Apollo Aguilan Tanting,Aditya Tandon	Issued	16/831,543	3/26/2020	11,232,067	1/25/2022
COHEP032C2	USING A SECONDARY STORAGE SYSTEM TO MAINTAIN FUNCTIONALITY OF A DATABASE DURING DATABASE MIGRATION	United States of America	Abhijit Chakankar,Manoj Singhal,Warren Shen,Sashikanth Madduri,Rupesh Bajaj,Vivek Velankar,Sandeep Tandekar,Sunil Moolchandani,Apollo Aguilan Tanting,Aditya Tandon	Abandoned	17/549,611	12/13/2021		
COHEP033	PERFORMING A DATABASE BACKUP BASED ON AUTOMATICALLY DISCOVERED PROPERTIES	United States of America	Rupesh Bajaj,Vivek Velankar,Sandeep Tandekar,Sunil Moolchandani,Apollo Aguilan Tanting,Aditya Tandon	issued	16/280,696	02/20/2019	11169887	11/9/2021
COHEP033C1	PERFORMING A DATABASE BACKUP BASED ON AUTOMATICALLY DISCOVERED PROPERTIES	United States of America	Rupesh Bajaj,Vivek Velankar,Sandeep Tandekar,Sunil Moolchandani,Apollo Aguilan Tanting,Aditya Tandon	application	17/489,545	09/29/2021		
COHEP034	STORAGE SYSTEM GARBAGE COLLECTION AND DEFRAGMENTATION	United States of America	Anubhav Gupta,Anirvan Duttagupta	issued	16/279,780	02/19/2019	10706014	7/7/2020
COHEP034C1	STORAGE SYSTEM GARBAGE COLLECTION AND DEFRAGMENTATION	United States of America	Anubhav Gupta,Anirvan Duttagupta	issued	16/733,605	01/03/2020	11226934	01/18/2022
COHEP034C2	STORAGE SYSTEM GARBAGE COLLECTION AND DEFRAGMENTATION	United States of America	Anubhav Gupta,Anirvan Duttagupta	Application	17/549,599	12/13/2021		

Ref	Title	Country	Inventors	Status	App/Serial No.	Filing Date	Patent No.	Issue Date
COHEP035	Hosting Virtual Machines on a Secondary Storage System	United States of America	Anand Bhat,Anil Kumar Boggarapu,Arvind Jagannath	Issued	16/389,201	04/19/2019	10503543	12/10/2019
COHEP035+	HOSTING VIRTUAL MACHINES ON A SECONDARY STORAGE SYSTEM	United States of America	Anand Bhat,Anil Kumar Boggarapu,Arvind Jagannath	Provisional	62/800,717	02/04/2019		
COHEP035AUW	SECONDARY STORAGE SYSTEM	Australia (from PCT)	Anand Bhat,Anil Kumar Boggarapu,Arvind Jagannath	Priority Claimed Application	2020217647	08/11/2021		
COHEP035C1	Hosting Virtual Machines on a Secondary Storage System	United States of America	Anand Bhat,Anil Kumar Boggarapu,Arvind Jagannath	Issued	16/676,151	11/06/2019	10,891,154	01/12/2021
COHEP035C2	Hosting Virtual Machines on a Secondary Storage System	United States of America	Anand Bhat,Anil Kumar Boggarapu,Arvind Jagannath	allowed will issue 10/4/2022	17/115,214	12/08/2020	11461131 will issue 10/4/2022	
COHEP035c3	Hosting Virtual Machines on a Secondary Storage System	United States of America	Anand Bhat,Anil Kumar Boggarapu,Arvind Jagannath	Application	17/894,912	08/24/2022		
COHEP035CNW	Hosting Virtual Machines on a Secondary Storage System	China (from PCT)	Anand Bhat,Anil Kumar Boggarapu,Arvind Jagannath	Application	2020800124205	08/03/2021		
COHEP035EP	Hosting Virtual Machines on a Secondary Storage System	EPO (from PCT)	Anand Bhat,Anil Kumar Boggarapu,Arvind Jagannath	Application	207008810.5	09/02/2021		
COHEP035INW	Hosting Virtual Machines on a Secondary Storage System	India (from PCT)	Anand Bhat,Anil Kumar Boggarapu,Arvind Jagannath	Application	202147039334	08/31/2021		
COHEP035PCT	Hosting Virtual Machines on a Secondary Storage System	PCT	Anand Bhat,Anil Kumar Boggarapu,Arvind Jagannath	Expired	PCT/US20/15430	01/28/2020		
COHEP036	Compliance Audit Logging Based Backup	United States of America	Adaikkappan Arumugam, Raghavendra Chowdary Maddipatia, Prashant Pogde	issued	16/452,326	6/25/2019	10754731	8/25/2020
cohep036c1	Compliance Audit Logging Based Backup	United States of America	Adaikkappan Arumugam, Raghavendra Chowdary Maddipatia, Prashant Pogde	Abandoned	16/930,757	7/16/2020		
COHEP037	DETERMINING DIFFERENCES BETWEEN TWO VERSIONS OF A FILE DIRECTORY TREE STRUCTURE	United States of America	Prashant Pogde,Apurv Gupta,Zheng Cai,Sureshbabu Murugesan,Markose Thomas	Allowed (accidentally abandoned, revival in	16/818,547	3/13/2020		
COHEP037+	DETERMINING DIFFERENCES BETWEEN TWO VERSIONS OF A FILE DIRECTORY TREE STRUCTURE	United States of America	Prashant Pogde,Apurv Gupta,Zheng Cai,Sureshbabu Murugesan,Markose Thomas	Provisional Priority Claimed	62/821,261	03/20/2019		
COHEP037+UK	DETERMINING DIFFERENCES BETWEEN TWO VERSIONS OF A FILE DIRECTORY TREE STRUCTURE	United Kingdom	Prashant Pogde,Apurv Gupta,Zheng Cai,Sureshbabu Murugesan,Markose Thomas	expired	1905533.4	04/18/2019		
COHEP037c1	DETERMINING DIFFERENCES BETWEEN TWO VERSIONS OF A FILE DIRECTORY TREE STRUCTURE	United States of America	Prashant Pogde,Apurv Gupta,Zheng Cai,Sureshbabu Murugesan,Markose Thomas	Application	17/851,793	06/28/2022		
COHEP038	Scaling Virtualization Resource Units of Applications	United States of America	Anubhav Gupta,Sachin Jain,Venkatesh Prabhakar,Anirvan Duttagupta	issued	16/456,367	6/28/2019		5/11/2021
COHEP038C1	Scaling Virtualization Resource Units of Applications	United States of America	Anubhav Gupta,Sachin Jain,Venkatesh Prabhakar,Anirvan Duttagupta	application	17/227,108	4/9/2021	11003504	
COHEP040	A WRITE OPTIMIZED, DISTRIBUTED, SCALEABLE INDEXING STORE	United States of America	Apurv Gupta,Akshat Agarwal,Manvendra Singh Tomar,Anshu Avinash	Application	17/020,254	9/14/2020		
COHEP040+	A WRITE OPTIMIZED, DISTRIBUTED, SCALEABLE INDEXING STORE	United States of America	Apurv Gupta,Akshat Agarwal,Manvendra Singh Tomar,Anshu Avinash	expired	62/904,561	9/23/2019		
COHEP041	OPTIMIZED STORAGE, ARCHIVE AND RECOVERY OF SNAPSHOT METADATA INDEXES	United States of America	Apurv Gupta,Akshat Agarwal,Manvendra Singh Tomar,Anshu Avinash	abandoned	16/380,188	4/10/2019		
COHEP042	File System Metadata Deduplication	United States of America	Anubhav Gupta,Sachin Jain,Shreyas Talele,Zhihuan Qiu	application	16/854,153	4/21/2020		
COHEP042+	File System Metadata Deduplication	United States of America	Anubhav Gupta,Sachin Jain,Shreyas Talele,Zhihuan Qiu	Provisional Priority Claimed	62/840,614	4/30/2019		

Docket No.	Title	Country	Inventors	Status	App. No.	Filing Date	Patent No.	Issue Date
COHEP042AU	File System Metadata Deduplication	Australia (from PCT)	Anubhav Gupta,Sachin Jain,Shreyas Talele, Zhihuan Qiu	Application	2020264449	10/29/2021		
COHEP042CN	File System Metadata Deduplication	China (from PCT)	Anubhav Gupta,Sachin Jain,Shreyas Talele, Zhihuan Qiu	Application	PCT/US2020/030511	10/29/2021		
COHEP042EP	File System Metadata Deduplication	EPO (from PCT)	Anubhav Gupta,Sachin Jain,Shreyas Talele, Zhihuan Qiu	Application	2.02147E+11	11/26/2021		
COHEP042INW	File System Metadata Deduplication	India (from PCT)	Anubhav Gupta,Sachin Jain,Shreyas Talele, Zhihuan Qiu	Application	2072042.2	11/25/2021		
COHEP042PCT	File System Metadata Deduplication	PCT	Anubhav Gupta,Sachin Jain,Shreyas Talele, Zhihuan Qiu	Application - don't count PCT national phase apps filed	PCT/US20/30511	4/29/2020		
COHEP043	PROVIDING A DISTRIBUTED AND REPLICATED DATA STORE IN A HETEROGENEOUS CLUSTER	United States of America	Venkatesh Pallipadi,Sachin Jain,Deepak Ojha,Apurv Gupta	Application	16/805,232	2/28/2020		
COHEP045	Efficient Restoration of Content	United States of America	Rupesh Bajaj, Prajakta Ayachit, Apurv Gupta, Janga Varun, Markose Thomas, Zheng Cai, Igor Korsunsky	Issued	16/943,680	7/31/2020	11403024	8/2/2022
COHEP045c1	Efficient Restoration of Content	United States of America	Rupesh Bajaj, Prajakta Ayachit, Apurv Gupta, Janga Varun, Markose Thomas, Zheng Cai, Igor Korsunsky	Application	17/851,820	6/28/2022		
COHEP045+	Efficient Restoration of Content	United States of America	Rupesh Bajaj, Prajakta Ayachit, Apurv Gupta, Janga Varun, Markose Thomas, Zheng Cai, Igor Korsunsky,	Provisional Priority Claimed	62/892,931	8/28/2019		
COHEP046	Continuous Data Protection Using a Write Filler (was: Near Zero Recovery Point Objective)	United States of America	Shobhit Agarwal, Chinmaya Manjunath, Kishan Venkata Sravan Nerella, Ashish Patwardhan	allowed	16/549,719	8/23/2019		
COHEP046+	Near Zero Recovery Point Objective	United States of America	Shobhit Agarwal, Chinmaya Manjunath, Kishan Venkata Sravan Nerella, Ashish Patwardhan	Provisional Priority Claimed	62/846,488	5/10/2019		
COHEP047	GENERATING STANDBY CLOUD VERSIONS OF A VIRTUAL MACHINE	United States of America	Namit Sharma, Vipin Gupta	Issued	16/660,623	10/22/2019	11397649	7/26/2022
COHEP047C1	GENERATING STANDBY CLOUD VERSIONS OF A VIRTUAL MACHINE	United States of America	Namit Sharma, Vipin Gupta	Application	17/845,138	6/21/2022		
COHEP048 (TLNA.P701)	Data Aware Deduplication	United States of America	Hariprasad Bhasker Rao Mankude	Issued	14/866,047	09/25/2015	10162832	12/25/2018
COHEP048+ (TLNA.P701P)	Data Aware Deduplication	United States of America	Hariprasad Bhasker Rao Mankude	Provisional Priority Claimed	62/055,395	09/25/2014		
COHEP049 (TLNA.P703)	Referential Sampling of Polyglot Datasets	United States of America	Srinivas Vadlamani	Issued	14/866,558	09/25/2015	10216784	2/26/2019
COHEP049P (TLNA.P703P)	Referential Sampling of Polyglot Datasets	United States of America	Srinivas Vadlamani	Provisional Priority Claimed	62/055,396	09/25/2014		
COHEP050 (TLNA.P702)	Web-Scale Distributed Deduplication	United States of America	Hariprasad Bhasker Rao Mankude	Issued	14/876,579	10/06/2015	10540328	1/21/2020

Matter No.	Title	Country	Inventors	Status	Serial No.	Date	Patent No.	Date
COHEP050C1	Web-Scale Distributed Deduplication	United States of America	Hariprasad Bhasker Rao Mankude	Issued	16/705,089	12/05/2019	11275717	03/15/2022
COHEP050C2	Web-Scale Distributed Deduplication	United States of America	Hariprasad Bhasker Rao Mankude	Application	17/590,469	02/01/2022		
COHEP050P (TLNA.P702P)	Web-Scale Distributed Deduplication	United States of America	Hariprasad Bhasker Rao Mankude	Provisional Priority Claimed	62/060,367	10/06/2014		
COHEP051C1	Large Content File Optimization	United States of America	Mohit Aron, Zhihuan Qiu, Ganesha Shanmuganathan, Malini Mahalakshmi Venkatachari	application	17/348,401	06/15/2021		
COHEP051	Large Content File Optimization	United States of America	Mohit Aron, Zhihuan Qiu, Ganesha Shanmuganathan, Malini Mahalakshmi Venkatachari	Issued	16/688,653	11/19/2019	11074135	7/27/2021
COHEP052	SCANNING A BACKUP FOR VULNERABILITIES	United States of America	Nagapramod Mandegere, Karandeep Singh Chawla, Virupaksja Kanjilal, Nilesh Pathak	issued	16/660,521	10/22/2019	11250136	2/15/2022
COHEP052AU	SCANNING A BACKUP FOR VULNERABILITIES	Australia (from PCT)	Nagapramod Mandegere, Karandeep Singh Chawla, Virupaksja Kanjilal, Nilesh Pathak	application		03/30/2022		
COHEP052C1	SCANNING A BACKUP FOR VULNERABILITIES	United States of America	Nagapramod Mandegere, Karandeep Singh Chawla, Virupaksja Kanjilal, Nilesh Pathak	Application	2020372328	01/11/2022		
COHEP052CN	SCANNING A BACKUP FOR VULNERABILITIES	China (from PCT)	Nagapramod Mandegere, Karandeep Singh Chawla, Virupaksja Kanjilal, Nilesh Pathak	application	17/573,483	04/20/2022		
COHEP052EP	SCANNING A BACKUP FOR VULNERABILITIES	EPO (from PCT)	Nagapramod Mandegere, Karandeep Singh Chawla, Virupaksja Kanjilal, Nilesh Pathak	Application	20804117.8	05/18/2022		
COHEP052INW	SCANNING A BACKUP FOR VULNERABILITIES	India (from PCT)	Nagapramod Mandegere, Karandeep Singh Chawla, Virupaksja Kanjilal, Nilesh Pathak	Application	2.02247E+11	5/20/2022		
COHEP052JP	SCANNING A BACKUP FOR VULNERABILITIES	Japan (from PCT)	Nagapramod Mandegere, Karandeep Singh Chawla, Virupaksja Kanjilal, Nilesh Pathak	application	2022-523654	03/30/2012		
COHEP052PCT	SCANNING A BACKUP FOR VULNERABILITIES	PCT	Nagapramod Mandegere, Karandeep Singh Chawla, Virupaksja Kanjilal, Nilesh Pathak	Don't count PCT entered national stage	PCT/US20/56370	10/19/2020		
COHEP053	Virtual Machine Boot Data Prediction	United States of America	Ayushi Jain and Vedant	allowed	16/710,505	12/11/2019		
COHEP054	Deduplicated Storage Disk Space Utilization	United States of America	Anirvan Duttagupta, Shreyas Talele, Anubhav Gupta	Allowed	16/834,136	03/30/2020		
COHEP055	Using a Secondary Storage System to Implement a Hierarchical Storage Management Plan	United States of America	Yu-Shen Ng, Nagapramod Mandegere, Karandeep Singh Chawla	Allowed	16/865,098	05/01/2020		
COHEP056	Restoring a Storage System Using File Relocation Metadata	United States of America	Nagapramod Mandegere, Yu-Shen Ng, Karandeep Singh Chawla	issued	15/931,197	05/13/2020	11422727	8/23/2022

Docket	Title	Country	Inventors	Status	Application No.	Filing Date	Notes
COHEP056C1	Restoring a Storage System Using File Relocation Metadata	United States of America	Nagapramod Mandegere, Yu-Shen Ng, Karandeep Singh Chawla	Application	17/840,260	06/14/2022	
COHEP056PCT	Restoring a Storage System Using File Relocation Metadata	PCT	Nagapramod Mandegere, Yu-Shen Ng, Karandeep Singh Chawla	Application	PCT/US21/31396	05/07/2021	
COHEP057	Asynchronous Deletion of Large Directories	United States of America	Anirvan Duttagupta, Shreyas Talele, Anubhav Gupta, Zhihuan Qiu, Malini Mahalakshmi Venkatachari, Prashant Saraswat	Allowed	16/871,408	05/11/2020	
cohep058	Updating a Virtual Machine Backup	United States of America	Raghavendra Gururao Jorapur, Vidhata Jain, Joydip Datta, Niket Vilas Bagwe, Rajashree Dashrath Thorat	allowed	16/912,154	06/25/2020	
COHEP058PCT	Updating a Virtual Machine Backup	PCT	Raghavendra Gururao Jorapur, Vidhata Jain, Joydip Datta, Niket Vilas Bagwe, Rajashree Dashrath Thorat	Application	PCT/US21/38458	06/22/2021	
COHEP058c1	Updating a Virtual Machine Backup	United States of America	Raghavendra Gururao Jorapur, Vidhata Jain, Joydip Datta, Niket Vilas Bagwe, Rajashree Dashrath Thorat	Application	17/894,901	08/24/2022	
COHEP059	Secure Communications of Storage Tenants That Share a Storage Cluster System	United States of America	Harsha Vardhan Jagannati, Anand Bhat	Allowed	17/036,330	09/29/2020	
COHEP060	Incremental Access Requests for Portions of Files from a Cloud Archival Storage Tier	United States of America	Sarthak Agarwal, Anirudh Kumar	allowed	17/030,770	09/24/2020	
COHEP061	Efficiently Storing Data in a Cloud Storage	United States of America	Anubhav Gupta, Praveen Kumar Yarlagadda, Venkata Ranga Radhanikanth Guturi, Zhihuan Qiu, Sarthak Agarwal	Application	17/402,198	08/13/2021	
COHEP061+	Efficiently Storing Data in a Cloud Storage	United States of America	Anubhav Gupta, Praveen Kumar Yarlagadda, Venkata Ranga Radhanikanth Guturi, Zhihuan Qiu, Sarthak Agarwal	Provisional Priority Claimed	63/074,682	09/04/2020	
COHEP061PCT	Efficiently Storing Data in a Cloud Storage	PCT	Anubhav Gupta, Praveen Kumar Yarlagadda, Venkata Ranga Radhanikanth Guturi, Zhihuan Qiu, Sarthak Agarwal	Application	PCT/US2149105	09/03/2021	
COHEP062	Certificate Management	United States of America	Suresh Bysani Venkata Naga, Apurv Gupta	Application	17/402,187	08/13/2021	
COHEP062+	Certificate Management	United States of America	Suresh Bysani Venkata Naga, Apurv Gupta	Provisional Priority Claimed	63/074,685	09/04/2020	
COHEP063	Parallel Restore of a Large Object	United States of America	Prashant Gothi, Dominic Tu Ping Cheah, Sai Madan Mohan Reddy Patlolla, Abhijit Chakankar, Suman Chandra Tokuri, Prajakta Ayachit	Allowed - will issue 10/4/2022	17/085,172	10/30/2020	11461194 will issue 10/4/2022
COHEP063C1	Parallel Restore of a Large Object	United States of America	Prashant Gothi, Dominic Tu Ping Cheah, Sai Madan Mohan Reddy Patlolla, Abhijit Chakankar, Suman Chandra Tokuri, Prajakta Ayachit	application	17/893,928	08/23/2022	

Ref	Title	Country	Inventors	Type	Number	Date
COHEP064	Efficient Backup After a Restore Operation	United States of America	Shreshtha Mundra, Anand Arun, Shubham Parashram Sawant, Yinzen Hwang	Application	17/097,964	11/13/2020
COHEP064PCT	Efficient Backup After a Restore Operation	PCT	Shreshtha Mundra, Anand Arun, Shubham Parashram Sawant, Yinzen Hwang	Application	PCT/US21/58805	11/10/2021
COHEP065	Graphical User Interface to Specify an Intent-Based Data Management Plan	United States of America	Colin Scott Johnson, Karandeep Singh Chawla, Chinmaya Manjunath	application	17/115,230	12/08/2020
COHEP066	Automatically Implementing a Specification of a Data Protection Intent	United States of America	Colin Scott Johnson, Karandeep Singh Chawla, Chinmaya Manjunath, Amitabh Sinha, Dayanand Sharma, Prakash Veljibhai Vaghela	Application	17/534,226	11/23/2021
COHEP066+	Automatically Implementing a Specification of a Data Protection Intent	United States of America	Colin Scott Johnson, Chinmaya Manjunath, Amitabh Sinha, Dayanand Sharma, Prakash Veljibhai Vaghela	Provisional	63/122,723	12/08/2020
COHEP067	Standbys for Continuous Data Protection-Enabled Objects	United States of America	Chinmaya Manjunath, Kishan Venkata Sravan Nerella, Himanshu Mehra, Shobhit Agarwal	application	17/540,630	12/02/2021
COHEP067+	Standbys for Continuous Data Protection-Enabled Objects	United States of America	Chinmaya Manjunath, Kishan Venkata Sravan Nerella, Himanshu Mehra, Shobhit Agarwal	Provisional	63/122,722	12/08/2020
COHEP068	Using a Stream of Source System Storage Changes to Update a Continuous Data Protection-Enabled Hot Standby	United States of America	Shobhit Agarwal, Chinmaya Manjunath, Kishan Venkata Sravan Nerella, Manvendra Tomar, Shubham Barai	Allowed	17/181,940	02/22/2021
COHEP069	Reducing the Impact of Network Latency During a Restore Operation	United States of America	Abhijit Chakankar,Prashant Gothi, Anubhav Gupta, Manoj Singhal	Application	17/173,009	02/10/2021
COHEP069PCT	Reducing the Impact of Network Latency During a Restore Operation	Patent Cooperation Treaty	Abhijit Chakankar,Prashant Gothi, Anubhav Gupta, Manoj Singhal	application	PCT/US22/15104	02/03/2022
COHEP070	Multichannel Virtual Internet Protocol Address Affinity	United States of America	Krishna Ram Kuttuva Jeyaram, Vijay Panghal, Ganesha Shanmuganathan	Application	17/154,882	01/21/2021
COHEP071	Using a Storage Log to Generate an Incremental Backup	United States of America	Amandeep Gautam, Anand Arun, Debasish Garai, Rupesh Bajaj, Himanshu Mehra, Vairavanathan Emalayan, Apurv Gupta	Application	17/218,619	03/31/2021
COHEP072	Coalescing Storage Log Entries	United States of America	Amandeep Gautam, Anand Arun, Debasish Garai, Rupesh Bajaj, Himanshu Mehra, Vairavanathan Emalayan, Apurv Gupta	application	17/381,514	07/21/2021
COHEP073	Deduplicating Metadata Based on a Common Sequence of Chunk Identifiers	United States of America	Zhihuan Qiu, Yu Liu (Calvin Liu)	Application	17/215,885	03/29/2021
COHEP074	Adaptive Throttling of Metadata Requests	United States of America	Prem Krishnaa Jagan Mohan, Prajakta Ayachit, Megha Agarwal	allowed	17/383,807	07/23/2021

Ref	Title	Country	Inventors	Type	App. No.	Date
COHEP075	Partial In-Line Deduplication and Partial Post-Processing Deduplication of Data Chunks	United States of America	Zhihuan Qiu, Yu Liu (Calvin Liu)	Application	17/410,745	08/24/2021
COHEP075PCT	Partial In-Line Deduplication and Partial Post-Processing Deduplication of Data Chunks	PCT	Zhihuan Qiu, Yu Liu (Calvin Liu)	Application	PCT/US22/40733	08/18/2022
COHEP076	Reducing Memory Usage in Storing Metadata	United States of America	Zhihuan Qiu, Sachin Jain, Anubhav Gupta, Apurv Gupta,Mohit Aron	Application	17/408,007	08/20/2021
COHEP077	Utilizing Progress Identifiers to Rewrite an Event Query	United States of America	Abhijit Chakankar, Pramesh Gupta, Vipin Vishvkarma, Apurv Gupta	application	17/386,076	07/27/2021
COHEP077PCT	Utilizing Progress Identifiers to Rewrite an Event Query	PCT	Abhijit Chakankar, Pramesh Gupta, Vipin Vishvkarma, Apurv Gupta	Application	PCT/US22/37715	07/20/2022
COHEP078	Managing Objects Stored at a Remote Storage	United States of America	Praveen Kumar Yariagadda, Aiswarya Bhavani Shankar, Venkata Ranga Radhanikanth Guturi, Anubhav Gupta	Application	17/476,873	09/16/2021
COHEP079	Providing a Graphical Representation of Anomalous Events	United States of America	Colin Scott Johnson, Mingran Lee	Application	17/501,617	10/14/2021
COHEP080	Dynamically Performing a Storage Service Job Workflow	United States of America	Sachin Jain, Himanshu Mehra, Sashikanth Madduri, Apurv Gupta	Application	17/501,627	10/14/2021
COHEP081 (from COHEP081+)	Efficiently Storing Data in a Cloud Storage	United States of America	Anubhav Gupta, Praveen Kumar Yariagadda, Venkata Ranga Radhanikanth Guturi, Zhihuan Qiu	Application	17/402,206	08/13/2021
COHEP082+	Maintaining and Updating a Backup View of an Application and its Associated Objects	United States of America	Steve Tai Hung Lee	Application	63/291,799	12/20/2021
COHEP083	Adaptively Providing Uncompressed and Compressed Chunks	United States of America	Zhihuan Qiu, Yinzen Hwang	Application	17/545,655	12/08/2021
COHEP084	Managing Objects Stored at a Remote Storage	United States of America	Praveen Kumar Yariagadda, Aiswarya Bhavani Shankar, Venkata Ranga Radhanikanth Guturi, Anubhav Gupta	Application	17/476,876	09/16/2021
COHEP085	Providing a Logical Data Isolation With Intermittent Connectivity	United States of America	Karthick Radhakrishnan, Saurabh Singh	Application	17/538,075	11/30/2021
COHEP086	Extending an Expiration Time of an Object Associated with an Archive	United States of America	Dane Van Dyck, Praveen Kumar Yariagadda	application	17/589,116	01/31/2022
COHEP087	MANAGING EXPIRATION TIMES OF ARCHIVED OBJECTS	United States of America	Dane Van Dyck, Praveen Kumar Yariagadda	application	17/881,439	02/25/2022
COHEP088	Container-Based Erasure Coding	United States of America	Apurv Gupta, Akshat Agarwal, Manvendra Singh Tomar, Donthula Akshith Reddy, Kushal Singh, Tarun Kumar Yadav, Mandar Suresh Naik	application	17/582,763	01/24/2022
COHEP089	QUORUM IN A DISTRIBUTED SYSTEM	United States of America	Harsha Vardhan Jagannati, Abhishek Sharma	application	17/881,471	02/25/2022
COHEP090	Performing an In-Line Erasure Coding Process Using a Write-Ahead Log	United States of America	Apurv Gupta, Akshat Agarwal	application	17/710,335	03/31/2022
COHEP091	Utilizing Fixed-Sized and Variable-Length Data Chunks to Perform Source Side Deduplication	United States of America	Apurv Gupta, Mandar Suresh Naik, Zhihuan Qiu, Gurunarayanan Nagasubramanian, Anirban Mitra	Application	17/731,056	04/27/2022

Reference	Title	Country	Inventors	Status	Application No.	Filing Date	Patent No.	Issue Date
COHEP092	Adaptive Source Side Deduplication	United States of America	Apurv Gupta, Mandar Suresh Naik, Zhihuan Qiu, Gurunarayanan Nagasubramanian, Anirban Mitra	application	17/852,887	06/29/2022		
COHEP093	Automatically Managing Access Policies for Archived Objects	United States of America	Nagapramod Mandagere, Abhishek Sharma, Venkata Ranga Radhanikanth Guturi, Anirudh Kumar, Dane Van Dyck	Application	17/892,439	08/22/2022		
COHEP093+	Automatically Managing Access Policies for Archived Objects	United States of America	Nagapramod Mandagere, Abhishek Sharma, Venkata Ranga Radhanikanth Guturi, Anirudh Kumar, Dane Van Dyck	Provisional Priority Claimed	63/339,264	05/06/2022		
COHEP094	PARALLELIZATION OF INCREMENTAL BACKUPS	United States of America	Amandeep Gautam, Venkata Ranga Radhanikanth Guturi	Application	17/872,307	08/31/2022		
COHEP095	Fortified Backup of Anomaly Detection		Jonathan Bell, Jonathon Mayor, Nagapramod Mandagere	Application	17/900,661	07/25/2022		
COHEP500	MAKING MORE ACTIVE USE OF A SECONDARY STORAGE SYSTEM	United States of America	Mohit Aron, Vinay Reddy	Issued	14/309,869	06/19/2014	9,921,769	3/20/2018
COHEP500C1	MAKING MORE ACTIVE USE OF A SECONDARY STORAGE SYSTEM	United States of America	Mohit Aron, Vinay Reddy	Issued	15/890,053	02/06/2018	10,089,030	10/2/2018
COHEP500C2	MAKING MORE ACTIVE USE OF A SECONDARY STORAGE SYSTEM	United States of America	Mohit Aron, Vinay Reddy	Issued	16/110,110	08/23/2018	10416911	9/17/2019
COHEP500C3	MAKING MORE ACTIVE USE OF A SECONDARY STORAGE SYSTEM	United States of America	Mohit Aron, Vinay Reddy	Issued	16/536,148	08/08/2019	10,996,875	5/4/2021
COHEP500C4	MAKING MORE ACTIVE USE OF A SECONDARY STORAGE SYSTEM	United States of America	Mohit Aron, Vinay Reddy	Application	17/218,784	03/31/2021		

Reference	Title	Country	Inventors	Status	Serial No.	Filing Date	Patent No.	Issue Date
COHEP501	DISTRIBUTED KEY-VALUE STORE	United States of America	Vinay Reddy,Mohit Aron,Vipin Gupta,Markose Thomas	Issued	14/315,128	06/25/2014	10,235,404	3/19/2019
COHEP501C1	PERFORMING FILE SYSTEM OPERATIONS IN A DISTRIBUTED KEY-VALUE STORE	United States of America	Vinay Reddy,Mohit Aron,Vipin Gupta,Markose Thomas	Issued	16/256,739	01/24/2019	11288248	3/29/2022
COHEP501C2	PERFORMING FILE SYSTEM OPERATIONS IN A DISTRIBUTED KEY-VALUE STORE	United States of America	Vinay Reddy,Mohit Aron,Vipin Gupta,Markose Thomas	Application	17/672,277	02/15/2022		
COHEP502	DISTRIBUTED FAIR ALLOCATION OF SHARED RESOURCES TO CONSTITUENTS OF A CLUSTER	United States of America	Mohit Aron,Vinay Reddy,Ravi Gadde	Issued	14/332,154	07/15/2014	9,887,937	2/6/2018
COHEP502C1	DISTRIBUTED FAIR ALLOCATION OF SHARED RESOURCES TO CONSTITUENTS OF A CLUSTER	United States of America	Mohit Aron,Vinay Reddy,Ravi Gadde	Issued	15/852,608	12/22/2017	11178070	11/16/2021
COHEP502C2	DISTRIBUTED FAIR ALLOCATION OF SHARED RESOURCES TO CONSTITUENTS OF A CLUSTER	United States of America	Mohit Aron,Vinay Reddy,Ravi Gadde	Application	17/501,643	10/14/2021		
COHEP503	DYNAMICALLY CHANGING MEMBERS OF A CONSENSUS GROUP IN A DISTRIBUTED SELF-HEALING COORDINATION SERVICE	United States of America	Sashikanth Madduri,Mohit Aron,Vinay Reddy,Vipin Gupta	Issued	14/334,162	07/17/2014	9,690,675	6/27/2017
COHEP503C1	DYNAMICALLY CHANGING MEMBERS OF A CONSENSUS GROUP IN A DISTRIBUTED SELF-HEALING COORDINATION SERVICE	United States of America	Sashikanth Madduri,Mohit Aron,Vinay Reddy,Vipin Gupta	Issued	15/628,487	06/20/2017	10657012	5/19/2020
COHEP504	NODE DISCOVERY AND CLUSTER FORMATION FOR A SECONDARY STORAGE APPLIANCE	United States of America	Gaurav Garg,Sashikanth Madduri	Issued	14/341,397	07/25/2014	9,596,143	3/14/2017
COHEP504PCT	NODE DISCOVERY AND CLUSTER FORMATION FOR A SECONDARY STORAGE APPLIANCE	Patent Cooperation Treaty	Gaurav Garg,Sashikanth Madduri	Expired	PCT/US15/41742	07/23/2015		
COHEP505	BACKUP OPERATIONS IN A TREE-BASED DISTRIBUTED FILE SYSTEM	United States of America	Mohit Aron,Ganesha Shanmuganathan	Issued	14/450,730	08/04/2014	9,720,947	8/1/2017
COHEP505C1	BACKUP OPERATIONS IN A TREE-BASED DISTRIBUTED FILE SYSTEM	United States of America	Mohit Aron,Ganesha Shanmuganathan	Issued	15/632,121	06/23/2017	10467216	11/5/2019
COHEP505C2	BACKUP OPERATIONS IN A TREE-BASED DISTRIBUTED FILE SYSTEM	United States of America	Mohit Aron,Ganesha Shanmuganathan	Issued	16/582,264	09/25/2019	11144524	10/12/2021
COHEP505C3	BACKUP OPERATIONS IN A TREE-BASED DISTRIBUTED FILE SYSTEM	United States of America	Mohit Aron,Ganesha Shanmuganathan	Application	17/475,060	09/14/2021		
COHEP505PCT	BACKUP OPERATIONS IN A TREE-BASED DISTRIBUTED FILE SYSTEM	Patent Cooperation Treaty	Mohit Aron,Ganesha Shanmuganathan	Expired	PCT/US15/43623	08/04/2015		
COHEP506	READ OPERATIONS IN A TREE-BASED DISTRIBUTED FILE SYSTEM	United States of America	Mohit Aron,Ganesha Shanmuganathan	Issued	14/450,798	08/04/2014	9,720,926	8/1/2017
COHEP506C1	READ OPERATIONS IN A TREE-BASED DISTRIBUTED FILE SYSTEM	United States of America	Mohit Aron,Ganesha Shanmuganathan	Abandoned	15/632,120	06/23/2017		
COHEP507	WRITE OPERATIONS IN A TREE-BASED DISTRIBUTED FILE SYSTEM	United States of America	Mohit Aron,Ganesha Shanmuganathan	Issued	14/450,848	08/04/2014	9,792,309	10/17/2017
COHEP508	CONCURRENT ACCESS AND TRANSACTIONS IN A DISTRIBUTED FILE SYSTEM	United States of America	Mohit Aron,Ganesha Shanmuganathan	Issued	14/524,979	10/27/2014	9,697,227	7/4/2017
COHEP508C1	CONCURRENT ACCESS AND TRANSACTIONS IN A DISTRIBUTED FILE SYSTEM	United States of America	Mohit Aron,Ganesha Shanmuganathan	Issued	15/628,484	06/20/2017	10275469	4/30/2019
COHEP508C2	CONCURRENT ACCESS AND TRANSACTIONS IN A DISTRIBUTED FILE SYSTEM	United States of America	Mohit Aron,Ganesha Shanmuganathan	Issued	16/296,707	03/08/2019	11023425	6/1/2021
COHEP508C3	CONCURRENT ACCESS AND TRANSACTIONS IN A DISTRIBUTED FILE SYSTEM	United States of America	Mohit Aron,Ganesha Shanmuganathan	Application	17/240,729	04/26/2021		

Ref	Title	Country	Inventors	Status	Application No.	Date / Patent No.	Expiry/Date
COHEP508DE	CONCURRENT ACCESS AND TRANSACTIONS IN A DISTRIBUTED FILE SYSTEM	Germany	Mohit Aron, Ganesha Shanmuganathan	Issued - Validation Completed	1585437 6.9 (German patent number 602015055221.0)	06/26/2020	7/1/2020
COHEP508EP	CONCURRENT ACCESS AND TRANSACTIONS IN A DISTRIBUTED FILE SYSTEM	European	Mohit Aron, Ganesha Shanmuganathan	granted epo- DON'T COUNT	1585437 6.9	01/19/2018 EP3295330	7/1/2020
COHEP508FR	CONCURRENT ACCESS AND TRANSACTIONS IN A DISTRIBUTED FILE SYSTEM	France	Mohit Aron, Ganesha Shanmuganathan	Issued - Validation Completed	1585437 6.10	08/21/2020	7/1/2020
COHEP508GB	CONCURRENT ACCESS AND TRANSACTIONS IN A DISTRIBUTED FILE SYSTEM	Great Britain	Mohit Aron, Ganesha Shanmuganathan	Issued - Validation Completed	1585437 6.11	08/24/2020	7/1/2020
COHEP508NL	CONCURRENT ACCESS AND TRANSACTIONS IN A DISTRIBUTED FILE SYSTEM	Netherlands	Mohit Aron, Ganesha Shanmuganathan	Issued - Validation Completed	1585437 6.12	07/29/2020	7/1/2020
COHEP508PCT	CONCURRENT ACCESS AND TRANSACTIONS IN A DISTRIBUTED FILE SYSTEM	Patent Cooperation Treaty	Mohit Aron, Ganesha Shanmuganathan	Expired	PCT/US15/57230	10/23/2015	
COHEP509	CONCURRENT ACCESS AND TRANSACTIONS IN A DISTRIBUTED FILE SYSTEM	United States of America	Mohit Aron, Ganesha Shanmuganathan	Issued	14/525,018	10/27/2014 9,870,368	1/16/2018
COHEP509C1	CONCURRENT ACCESS AND TRANSACTIONS IN A DISTRIBUTED FILE SYSTEM	United States of America	Mohit Aron, Ganesha Shanmuganathan	Issued	15/826,388	11/29/2017 10747727	8/18/2020
COHEP509C2	CONCURRENT ACCESS AND TRANSACTIONS IN A DISTRIBUTED FILE SYSTEM	United States of America	Mohit Aron, Ganesha Shanmuganathan	Application	16/921,055	07/06/2020	
COHEP510	SEARCH AND ANALYTICS FOR STORAGE SYSTEMS	United States of America	Apurv Gupta, Vipin Gupta, Johnny Chen, Sunil Moolchandani, Murali Vajapeyam	Issued	14/624,357	02/17/2015 9,971,821	5/15/2018
COHEP510C1	SEARCH AND ANALYTICS FOR STORAGE SYSTEMS	United States of America	Apurv Gupta, Vipin Gupta, Johnny Chen, Sunil Moolchandani, Murali Vajapeyam	Issued	15/947,373	04/06/2018 10311083	6/4/2019
COHEP510C2	SEARCH AND ANALYTICS FOR STORAGE SYSTEMS	United States of America	Apurv Gupta, Vipin Gupta, Johnny Chen, Sunil Moolchandani, Murali Vajapeyam	Issued	16/391,132	04/22/2019 11176165	11/16/2021
COHEP510C3	SEARCH AND ANALYTICS FOR STORAGE SYSTEMS	United States of America	Apurv Gupta, Vipin Gupta, Johnny Chen, Sunil Moolchandani, Murali Vajapeyam	application	17/489,560	09/29/2021	
COHEP511	TIER-OPTIMIZED WRITE SCHEME	United States of America	Mohit Aron, Ganesha Shanmuganathan	Issued	14/684,536	04/13/2015 9,696,913	7/4/2017
COHEP511C1	TIER-OPTIMIZED WRITE SCHEME	United States of America	Mohit Aron, Ganesha Shanmuganathan	Issued	15/628,445	06/20/2017 10,120,587	11/6/2018
COHEP511C2	TIER-OPTIMIZED WRITE SCHEME	United States of America	Mohit Aron, Ganesha Shanmuganathan	Issued	16/154,556	10/08/2018 10489059	11/26/2019
COHEP511C3	TIER-OPTIMIZED WRITE SCHEME	United States of America	Mohit Aron, Ganesha Shanmuganathan	Application	16/662,899	10/24/2019	
COHEP512	PEER TO PEER UPGRADE MANAGEMENT	United States of America	Sashikanth Madduri, Gaurav Garg, Patrick Lundquist	Issued	14/852,159	09/11/2015 9,626,177	4/18/2017
COHEP513	ADAPTIVE SELF-MAINTENANCE SCHEDULER	United States of America	Tarang Vaish, Anirvan Duttagupta, Sashikanth Madduri	Issued	14/852,249	09/11/2015 9,959,138	5/1/2018
COHEP513C1	ADAPTIVE SELF-MAINTENANCE SCHEDULER	United States of America	Tarang Vaish, Anirvan Duttagupta, Sashikanth Madduri	Issued	15/926,260	03/20/2018 10303508	5/28/2019

Matter No.	Title	Country	Inventor(s)	Status	Application No.	Filing Date	Patent No.	Issue Date
COHEP514	DISTRIBUTED WRITE JOURNALS THAT SUPPORT FAST SNAPSHOTTING FOR A DISTRIBUTED FILE SYSTEM	United States of America	Apurv Gupta	Issued	14/852,332	09/11/2015	10339101	7/2/2019
COHEP514C1	DISTRIBUTED WRITE JOURNALS THAT SUPPORT FAST SNAPSHOTTING FOR A DISTRIBUTED FILE SYSTEM	United States of America	Apurv Gupta	Issued	16/411,690	05/14/2019	11,334,522	5/17/2022
COHEP514C2	DISTRIBUTED WRITE JOURNALS THAT SUPPORT FAST SNAPSHOTTING FOR A DISTRIBUTED FILE SYSTEM	United States of America	Apurv Gupta	Application	17/725,346	04/20/2022		
COHEP515	FILE SYSTEM CONSISTENCY IN A DISTRIBUTED SYSTEM USING VERSION VECTORS	United States of America	Mohit Aron,Ganesha Shanmuganathan,Tarang Vaish	Issued	14/852,363	09/11/2015	105285546	1/7/2020
COHEP515c1	FILE SYSTEM CONSISTENCY IN A DISTRIBUTED SYSTEM USING VERSION VECTORS	United States of America	Mohit Aron,Ganesha Shanmuganathan,Tarang Vaish	Application	16/700,735	12/02/2019		
COHEP516	GLOBAL DEDUPLICATION	United States of America	Ganesha Shanmuganathan	Issued	14/852,820	09/14/2015	10,037,337	7/31/2018
COHEP516C1	GLOBAL DEDUPLICATION	United States of America	Ganesha Shanmuganathan	Issued	16/021,460	06/28/2018	10,936,546	3/2/2021
COHEP516C2	GLOBAL DEDUPLICATION	United States of America	Ganesha Shanmuganathan	Application	17/156,091	01/22/2021		
COHEP517	DYNAMIC THROUGHPUT INGESTION OF BACKUP SOURCES	United States of America	Markose Thomas,Chinmaya Manjunath	Issued	14/863,178	09/23/2015	10298680	5/21/2019
COHEP517C1	DYNAMIC THROUGHPUT INGESTION OF BACKUP SOURCES	United States of America	Markose Thomas,Chinmaya Manjunath	Issued	16/373,138	4/2/2019	10944822	3/9/2021
COHEP517C2	DYNAMIC THROUGHPUT INGESTION OF BACKUP SOURCES	United States of America	Markose Thomas,Chinmaya Manjunath	Allowed	17/156,015	1/22/2021		
COHEP518	OBJECTIVE BASED BACKUP JOB SCHEDULING	United States of America	Markose Thomas,Chinmaya Manjunath	Issued	14/863,250	09/23/2015	10,083,094	9/25/2018
COHS/0005US (066813)	INTELLIGENT DISASTER RECOVERY	United States of America	Sashi Madduri, Mohit Aron	Abandoned	14283048	5/20/2014		

EXHIBIT C

TRADEMARKS

Registered Trademarks

See Annex C

Domain Names

See Annex D

Pending Trademark Applications

See Annex C

Registered Trademarks and Pending Trademark Applications Licensed to Loan

Parties

See Annex C

Annex C

Registered Trademarks and Pending Trademark Applications

(attached)

Mark	Image	Country	App. No.	Status	App. Date	Reg. No.	Reg. Date	Affidavit of Use	Next Renewal Date
COHESITY		Albania		Pending App	Dec-26-2019				
COHESITY		Australia		Registered	Dec-26-2019	IR1551725	May-24-2021		Dec-26-2029
COHESITY		Bosnia & Herzegovina		Pending App	Dec-26-2019				
COHESITY		Canada		Pending Refusal	Dec-26-2019				
COHESITY		Egypt		Pending App	Dec-26-2019				
COHESITY		European Union		Registered	Dec-26-2019	IR1551725	Feb-10-2021		Dec-26-2029
COHESITY		Hong Kong	305928319	Published	Apr-07-2022				
COHESITY		Iceland		Pending App	Dec-26-2019				
COHESITY		India		Pending App	Dec-26-2019				
COHESITY		Indonesia		Pending App	Dec-26-2019				
COHESITY		Israel		Published	Dec-26-2019				
COHESITY		Japan	2019-104568	Registered	Aug-01-2019	6292950	Sep-16-2020		Sep-16-2030
COHESITY		Madrid Protocol (TM)	-	Registered	Dec-26-2019	IR1551725	Dec-26-2019		Dec-26-2029
COHESITY		Malaysia		Pending App	Dec-26-2019				
COHESITY		Mongolia		Pending App	Dec-26-2019				
COHESITY		New Zealand		Registered	Dec-26-2019	IR1551725	Nov-02-2021		Dec-26-2029
COHESITY		Norway		Pending App	Dec-26-2019				
COHESITY		Philippines		Pending App	Dec-26-2019				
COHESITY		Republic of Korea		Registered	Dec-26-2019	IR1551725	Feb-03-2022	Jul-21-2025	Dec-26-2029
COHESITY		Russian Federation		Registered	Dec-26-2019	IR1551725	Aug-02-2021		Dec-26-2029
COHESITY		Serbia		Pending App	Dec-26-2019				
COHESITY		Singapore		Registered	Dec-26-2019	IR1551725	Oct-28-2021		Dec-26-2029
COHESITY		South Africa	2022/11540	Pending App	Apr-07-2022				
COHESITY		South Africa	2022/11543	Pending App	Apr-07-2022				
COHESITY		South Africa	2022/11541	Pending App	Apr-07-2022				
COHESITY		South Africa	2022/11542	Pending App	Apr-07-2022				
COHESITY		Switzerland		Pending App	Dec-26-2019				
COHESITY		Thailand		Pending App	Dec-26-2019				
COHESITY		Turkey		Registered	Dec-26-2019	IR1551725	Apr-07-2021		Dec-26-2029
COHESITY		United Kingdom		Registered	Dec-26-2019	IR1551725	Apr-25-2021		Dec-26-2029
SPANFS		United States of America	87/548,823	Registered	Jul-31-2017	5,471,402	May-15-2018	May-15-2024	May-15-2028

Mark	Country	Serial No.	Status	Reg. No.	Filing Date	Reg. Date		
ACTIVERX	United States of America	86/931,805	Registered	5,317,852	Mar-07-2016	Oct-24-2017	Oct-24-2023	Oct-24-2027
S (STYLIZED)	United States of America	86/754,042	Registered	5,172,335	Sep-11-2015	Mar-28-2017	Mar-28-2023	Mar-28-2027
SNAPTREE	United States of America	86/686,275	Registered	5,134,308	Jul-08-2015	Jan-31-2017	Jan-31-2023	Jan-31-2027
COHESITY	United States of America	86/145,973	Registered	4,778,066	Dec-17-2013	Jul-21-2015	Jul-21-2025	Jul-21-2025
COHESITY	United States of America	88/737,839	Registered	6,112,348	Dec-23-2019	Jul-28-2020	Jul-28-2026	Jul-28-2030
COHESITY	United States of America	90/033,875	Pending App		Jul-02-2020			
HELIOS	United States of America	90/033,868	Pending App		Jul-02-2020			
HELIOS	United States of America	90/230,610	Registered	6,401,369	Oct-01-2020	Jun-29-2021	Jun-29-2027	Jun-29-2031
HELIOS	United States of America	90/230,605	Pending App		Oct-01-2020			
H + orbit + planet logo	United States of America	90/230,584	Pending App		Oct-01-2020			
H + orbit + planet logo	United States of America		Pending App					
S (STYLIZED)	United States of America		Pending App					
COHESITY	Vietnam		Pending App		Dec-26-2019			

Annex D

Domain Names

(attached)

godaddy_domains_09_15_2022

Domain Name	TLD	Create Date	Ownership Date	Expiration Date	Status
cohesity.academy	.ACADEMY	2022-03-04	2022-03-04	2027-03-04	Active
cohesity.biz	.BIZ	2022-02-28	2022-02-28	2023-02-28	Active
cohesity.care	.CARE	2022-02-28	2022-02-28	2023-02-28	Active
cohesity.cloud	.CLOUD	2018-07-27	2018-07-27	2023-07-27	Active
cohesity.co	.CO	2019-12-17	2019-12-17	2022-12-17	Active
COHESITY.COM	.COM	2013-03-18	2013-06-10	2027-03-18	Active
cohesity.global	.GLOBAL	2022-02-28	2022-02-28	2023-02-28	Active
cohesity.host	.HOST	2022-02-28	2022-02-28	2023-02-28	Active
cohesity.life	.LIFE	2022-02-28	2022-02-28	2023-02-28	Active
cohesity.live	.LIVE	2022-02-28	2022-02-28	2023-02-28	Active
cohesity.love	.LOVE	2022-02-28	2022-02-28	2023-02-28	Active
cohesity.me	.ME	2022-02-28	2022-02-28	2023-02-28	Active
cohesity.network	.NETWORK	2022-02-28	2022-02-28	2023-02-28	Active
cohesity.news	.NEWS	2022-02-28	2022-02-28	2023-02-28	Active
cohesity.one	.ONE	2022-02-28	2022-02-28	2023-02-28	Active
cohesity.online	.ONLINE	2022-02-28	2022-02-28	2023-02-28	Active
cohesity.pro	.PRO	2022-02-28	2022-02-28	2023-02-28	Active
cohesity.shop	.SHOP	2022-02-28	2022-02-28	2023-02-28	Active
cohesity.site	.SITE	2022-02-28	2022-02-28	2023-02-28	Active
cohesity.solutions	.SOLUTIONS	2022-03-04	2022-03-04	2027-03-04	Active
cohesity.space	.SPACE	2022-02-28	2022-02-28	2023-02-28	Active
cohesity.storage	.STORAGE	2018-03-01	2020-02-28	2023-03-01	Active
cohesity.store	.STORE	2022-02-28	2022-02-28	2023-02-28	Active
cohesity.today	.TODAY	2018-07-27	2018-07-27	2024-07-27	Active
cohesity.us	.US	2017-09-12	2017-09-12	2023-09-11	Active
cohesity.vip	.VIP	2022-02-28	2022-02-28	2023-02-28	Active
cohesity.work	.WORK	2022-02-28	2022-02-28	2023-02-28	Active
cohesity.world	.WORLD	2022-02-28	2022-02-28	2023-02-28	Active
cohesitychallenge.com	.COM	2017-02-16	2019-05-30	2023-02-16	Active
cohesityconnect.com	.COM	2021-09-21	2021-09-21	2023-09-21	Active
cohesitydatacloud.com	.COM	2018-11-12	2018-11-12	2024-11-12	Active
cohesitydatacloud.net	.NET	2018-11-12	2018-11-12	2024-11-12	Active
cohesitydatacloud.org	.ORG	2018-11-12	2018-11-12	2024-11-12	Active
cohesityfederal.com	.COM	2016-03-24	2016-03-24	2025-03-24	Active
cohesityinc.com	.COM	2019-03-22	2019-03-23	2025-03-22	Active
cohesiy.info	.INFO	2022-03-17	2022-03-17	2027-03-17	Active
cohesiy.net	.NET	2022-03-17	2022-03-17	2027-03-17	Active
gov-cohesity.com	.COM	2022-07-21	2022-07-21	2027-07-21	Active
govcohesity.com	.COM	2022-07-21	2022-07-21	2027-07-21	Active
infinitescalablestorage.com	.COM	2019-03-03	2019-03-03	2025-03-03	Active
massdatafragmentation.com	.COM	2018-09-11	2018-09-11	2024-09-11	Active
massdatafragmentation.net	.NET	2018-09-11	2018-09-11	2024-09-11	Active
massdatamanagement.com	.COM	2019-05-20	2019-05-20	2024-05-20	Active
massdatamanagement.net	.NET	2019-05-20	2019-05-20	2024-05-20	Active
my-cohesity.com	.COM	2022-02-17	2022-02-18	2025-02-17	Active
mycohesity.com	.COM	2021-08-23	2022-03-04	2023-08-23	Active
primary.storage	.STORAGE	2018-03-01	2020-02-28	2023-03-01	Active
secondary.storage	.STORAGE	2018-03-01	2020-02-28	2023-03-01	Active
secondarydatacloud.com	.COM	2018-07-02	2018-10-23	2023-07-02	Active
secondarydatacloud.net	.NET	2018-10-30	2018-10-30	2024-10-30	Active
sellwithcohesity.com	.COM	2019-01-24	2019-01-25	2023-01-24	Active
sitecontinuity.com	.COM	2022-03-04	2022-03-04	2027-03-04	Active

1

TRADEMARK
REEL: 007854 FRAME: 0124