PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5503203

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
UPTHERE, INC.	08/28/2017

RECEIVING PARTY DATA

Name:	WESTERN DIGITAL TECHNOLOGIES, INC.
Street Address:	5601 GREAT OAKS PARKWAY
City:	SAN JOSE
State/Country:	CALIFORNIA
Postal Code:	95119

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16389999

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.

Email: mail@changhale.com
Correspondent Name: CHANG & HALE LLP
Address Line 1: 4199 CAMPUS DRIVE

Address Line 2: SUITE 550

Address Line 4: IRVINE, CALIFORNIA 92612

ATTORNEY DOCKET NUMBER:	UPT-1008-A-US
NAME OF SUBMITTER:	DON NEIL C. PUA
SIGNATURE:	/Don Neil C. Pua/
DATE SIGNED:	05/01/2019

Total Attachments: 12

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PATENT 505456400 REEL: 049055 FRAME: 0751

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ASSIGNMENT OF PATENTS

This ASSIGNMENT OF PATENTS (this "<u>Assignment</u>"), effective as of August 28, 2017, is made and entered into by and between Upthere, Inc., a Delaware corporation (the "<u>Assignor</u>"), and Western Digital Technologies, Inc., a Delaware corporation (the "<u>Assignee</u>"). Capitalized terms which are used but not otherwise defined in this Assignment will have the meaning ascribed to such terms in the Purchase Agreement.

- A. Assignor and Assignee entered into that certain Asset Purchase Agreement, dated August 18, 2017 (the "<u>Purchase Agreement</u>"), pursuant to which Assignee has agreed to purchase, among other things, the Patents owned by Assignor and used or held for use in, or necessary for the conduct of, the Business, including those set forth on <u>Exhibit A</u> hereto (the "<u>Acquired Patents</u>");
- B. Assignor is the owner of each of the Acquired Patents and desires to assign all of Assignor's right, title and interest in and to the Acquired Patents to Assignee; and
 - C. The execution and delivery of this Assignment is a condition to Closing.

NOW THEREFORE, in consideration of the foregoing and for other good and valuable consideration the receipt and sufficiency of which are hereby acknowledged, the parties hereby agree as follows:

- 1. <u>Assignment</u>. Effective upon Closing, Assignor hereby sells, transfers, assigns, conveys and delivers to Assignee, and Assignee hereby accepts, all of Assignor's right, title and interest in and to the Acquired Patents, including all rights therein provided by international conventions and treaties, all rights of priority, extensions and renewals, and all rights to sue and recover damages for past, present and future infringement, dilution, misappropriation, unlawful imitation or other violation thereof or conflict therewith.
- 2. <u>Further Assurances</u>. (a) Assignor will timely execute and deliver any additional documents and perform such additional acts that may be necessary or desirable to assist Assignee (or its successors, assigns or legal representatives) in the implementation, recordation or perfection of this Assignment and Assignee's interest in and to the Acquired Patents, including in the (i) preparation and prosecution of any application for registration of the Acquired Patents, and (ii) prosecution or defense of any interference, opposition, cancellation, infringement or other Action that may arise in connection with any of the Acquired Patents.
- (b) If Assignee is unable for any reason to secure Assignor's signature to any document it is entitled to under Paragraph 2(a) hereof, Assignor hereby irrevocably designates and appoints Assignee, and Assignee's duly authorized officers, agents and representatives, as its agents and attorneys-in-fact with full power of substitution to act for and on the behalf and instead of Assignor, to execute and file any such document or documents and to do all other lawfully permitted acts to further the purposes of this Assignment with the same legal force and effect as if executed by Assignor.

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- 3. <u>Due Authorization</u>. Assignor hereby authorizes and requests the United States Commissioner of Patents and Trademarks and any other official of any applicable Governmental Authority to issue any and all registrations from any and all applications for registration included in the Acquired Patents to and in the name of Assignee.
- 4. <u>Governing Law</u>. This Assignment will be governed by and construed and enforced in accordance with the laws of the State of Delaware, without regard to principles of conflicts of law that would result in the application of the laws of another jurisdiction other than the Federal laws of the United States of America. Any dispute arising under or in connection with this Assignment will be resolved in any state or federal courts located in the State of Delaware, and the parties hereby submit to the exclusive jurisdiction of such courts in respect of any such proceeding.
- 5. <u>Counterparts</u>. This Agreement may be executed in one or more counterparts, and by the different parties hereto in separate counterparts, each of which when executed will be deemed to be an original but all of which taken together will constitute one and the same agreement. Delivery of an executed counterpart of a signature page to this Agreement by telecopy or by electronic delivery in Adobe Portable Document Format or other electronic format based on common standards, including any electronic signature complying with the U.S. federal ESIGN Act of 2000, and any counterpart so delivered will be deemed to have been duly and validly delivered and be valid and effective for all purposes.

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Each party has caused this Assignment to be executed by its duly authorized representative.

WESTERN DIGITAL TECHNOLOGIES, INC.

Michael Cordano

President and Chief Operating Officer

[Signature Page to Assignment of Patents]

Each party has caused this Assignment to be executed by its duly authorized representative.

UPTHERE, INC.

By: Name: Chris Bourdon

Title: CEO

EXHIBIT A

PATENTS

Owner	Country	Title	Patent [Application] No.	Filing date
Upthere, Inc.	China	Detecting Deviation Between Replicas Using Bloom Filters	[201310741125.5]	12/27/2013
Upthere, Inc.	China	Chunk-Level Client Side Encryption In Hierarchical Content Addressable Storage Systems	[201410350664.0]	7/22/2014
Upthere, Inc. [Up There Inc.]	China	Reusable Content Addressable Stores As Building Blocks For Creating Large Scale Storage Infrastructures	ZL2013100325456 [201310032545.6]	1/28/2013

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PATENT

PATENT

Upthere, Inc.	Upthere, Inc.	Upthere, Inc.	Upthere, Inc.
United States	United States	United States	Hong Kong
Chunk-Level Client Side Encryption In Hierarchical Content Addressable Storage Systems	Chunk-Level Client Side Encryption In Hierarchical Content Addressable Storage Systems	Maintaining And Using A Cache Of Child-To- Parent Mappings In A Content- Addressable Storage System	Content Addressable Stores Based On Sibling Groups
9,207,866 [13/947,409]	9,411,749 B2 [14/962,816]	9,659,023 B2 [14/205,982]	[14100969.1]
7/22/2013	12/8/2015	3/12/2014	1/29/2014
5/4/2034 (286 days PTA)	7/22/2033 (0 days PTA)	10/8/2035 (575 days PTA)	9/18/2032 (Based on filing date of US App. No. 13/622,026)

Upthere, Inc.	Upthere, Inc.	Upthere, Inc.	Upthere, Inc.	Upthere, Inc.	Upthere, Inc.
United States	United States	United States	United States	United States	United States
Media Content Management Device	Media Content Management Device	Navigating Through Media Object Collection	Content-Aware Filter Options For Media Object Collections	Garbage Collection Of Chunks	Representing Directory Structure In Content- Addressable Storage Systems
[62/441,733]	[29/589,576]	[14/078,738]	[15/364,919]	9,176,871 B1 [13/760,945]	9,183,212 B2 [14/086,197]
1/3/2017	1/3/2017	11/13/2013	11/30/2016	2/6/2013	11/21/2013
		11/13/2033 (subject to any PTA)	11/13/2033 (subject to any PTA) (Continuation of US App. No. 14/078,738)	10/21/2033 (257 days PTA)	12/8/2032 (81 days PTA)

Upthere,	Upthere,	Upthere,	Upthere,
Inc.	Inc.	Inc.	Inc.
United	United	United	United
States	States	States	States
Sharing Groups for Capturing Digital Media	Reusable Content Addressable Stores As Building Blocks For Creating Large Scale Storage Infrastructures	Content Addressable Stores Based On Sibling Groups	Detecting Deviation Between Replicas Using Bloom Filters
[14/819,658]	8,361,209 B2	9,052,824 B2	9,075,834 B2
	[13/358,742]	[13/622,026]	[13/728,133]
8/6/2015	1/26/2012	9/18/2012	12/27/2012
	6/5/2032 (141	11/5/2032 (284	1/9/2034 (378
	days PTA)	days PTA)	days PTA)

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UNITED STATES PATENT AND TRADEMARK OFFICE

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

OCTOBER 16, 2017

PTAS

HICKMAN PALERMO BECKER BINGHAM LLP 1 ALMADEN BOULEVARD, FLOOR 12 SAN JOSE, CA 95113

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UNITED STATES PATENT AND TRADEMARK OFFICE NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT RECORDATION BRANCH OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE ASSIGNMENT RECORDATION BRANCH AT 571-272-3350. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, MAIL STOP: ASSIGNMENT RECORDATION BRANCH, P.O. BOX 1450, ALEXANDRIA, VA 22313.

RECORDATION DATE: 09/14/2017 REEL/FRAME: 043865/0761 NUMBER OF PAGES: 13

BRIEF: CORRECTIVE ASSIGNMENT TO CORRECT THE ASSIGNEE ADDRESS PREVIOUSLY RECORDED AT REEL: 043466 FRAME: 0983. ASSIGNOR(S) HEREBY CONFIRMS THE ASSIGNMENT .

DOCKET NUMBER: 60285-0010

ASSIGNOR:

UPTHERE, INC. DOC DATE: 08/28/2017

ASSIGNEE:

WESTERN DIGITAL TECHNOLOGIES, INC.

5601 GREAT OAKS PARKWAY

SAN JOSE, UNITED STATES 95119

APPLICATION NUMBER: 13358742 FILING DATE: 01/26/2012 PATENT NUMBER: 8631209 ISSUE DATE: 01/14/2014 TITLE: REUSABLE CONTENT ADDRESSABLE STORES AS BUILDING BLOCKS FOR CREATING LARGE SCALE STORAGE INFRASTRUCTURES

APPLICATION NUMBER: 13622026 FILING DATE: 09/18/2012 PATENT NUMBER: 9052824 ISSUE DATE: 06/09/2015 TITLE: CONTENT ADDRESSABLE STORES BASED ON SIBLING GROUPS

APPLICATION NUMBER: 13728133 FILING DATE: 12/27/2012 PATENT NUMBER: 9075834 ISSUE DATE: 07/07/2015 TITLE: DETECTING DEVIATION BETWEEN REPLICAS USING BLOOM FILTERS

> **PATENT** P.O. Box 1450, Alexandria, Virginia 22313-1450 - WWW.USPTO.GOV REEL: 049055 FRAME: 0763

APPLICATION NUMBER: 13760945 FILING DATE: 02/06/2013 ISSUE DATE: 11/03/2015 PATENT NUMBER: 9176871

TITLE: GARBAGE COLLECTION OF CHUNKS

APPLICATION NUMBER: 13947409 FILING DATE: 07/22/2013 PATENT NUMBER: 9207866 ISSUE DATE: 12/08/2015 TITLE: CHUNK-LEVEL CLIENT SIDE ENCRYPTION IN HIERARCHICAL CONTENT ADDRESSABLE STORAGE SYSTEMS

APPLICATION NUMBER: 14078738 FILING DATE: 11/13/2013 PATENT NUMBER: 9779098 ISSUE DATE: 10/03/2017

TITLE: NAVIGATING THROUGH MEDIA OBJECT COLLECTION

APPLICATION NUMBER: 14086197 FILING DATE: 11/21/2013 PATENT NUMBER: 9183212 ISSUE DATE: 11/10/2015

TITLE: REPRESENTING DIRECTORY STRUCTURE IN CONTENT-ADDRESSABLE STORAGE

SYSTEMS

APPLICATION NUMBER: 14205982 FILING DATE: 03/12/2014 PATENT NUMBER: 9659023 ISSUE DATE: 05/23/2017

TITLE: MAINTAINING AND USING A CACHE OF CHILD-TO-PARENT MAPPINGS IN A

CONTENT-ADDRESSABLE STORAGE SYSTEM

APPLICATION NUMBER: 14819658 FILING DATE: 08/06/2015

PATENT NUMBER: ISSUE DATE: TITLE: SHARING GROUPS FOR CAPTURING DIGITAL MEDIA

APPLICATION NUMBER: 14962816 FILING DATE: 12/08/2015 PATENT NUMBER: 9411749 ISSUE DATE: 08/09/2016 TITLE: CHUNK-LEVEL CLIENT SIDE ENCRYPTION IN HIERARCHICAL CONTENT ADDRESSABLE STORAGE SYSTEMS

APPLICATION NUMBER: 15364919 FILING DATE: 11/30/2016

PATENT NUMBER: ISSUE DATE:

TITLE: CONTENT-AWARE FILTER OPTIONS FOR MEDIA OBJECT COLLECTIONS

ASSIGNMENT RECORDATION BRANCH PUBLIC RECORDS DIVISION

RECORDED: 05/01/2019