505158253 10/25/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT5205020

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SWEETESH SINGH	10/22/2018

RECEIVING PARTY DATA

Name:	EMC IP HOLDING COMPANY LLC
Street Address:	176 SOUTH STREET
City:	HOPKINTON
State/Country:	MASSACHUSETTS
Postal Code:	01748

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16170112

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: 978 264 4001

Email: handerson@andersongorecki.com

Correspondent Name: ANDERSON GORECKI LLP

Address Line 1: 2 DUNDEE PARK

Address Line 4: ANDOVER, MASSACHUSETTS 01810

ATTORNEY DOCKET NUMBER:	130-194 112481.01
NAME OF SUBMITTER:	HOLMES W. ANDERSON
SIGNATURE:	/Holmes W. Anderson/
DATE SIGNED:	10/25/2018

Total Attachments: 3

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> **PATENT REEL: 047305 FRAME: 0719** 505158253

PATENT/Joint Assignment Attorney Docket No.: 130-194 Assignee Docket No.: 112481.01

ASSIGNMENT

WHEREAS, I, **Sweetesh Singh**, have invented an invention comprising and/or embodying certain improvements or discoveries or both as described in an application for Letters Patent of the United States entitled

LOCALITY-AWARE, MEMORY-EFFICIENT, TIME-EFFICIENT HOT DATA IDENTIFICATION USING COUNT-MIN-SKETCH FOR FLASH OR STREAMING APPLICATIONS.

the specification of which:

[X]	is being executed on even date herewith and is about to be filed in the United States Patent Office;
[]	was filed on as U.S. Application No;
[]	was patented under U.S. Patent Noon

WHEREAS, EMC IP HOLDING COMPANY LLC (hereinafter "ASSIGNEE"), a Delaware limited liability company having a usual place of business at 176 South Street, Hopkinton, Massachusetts 01748 desires to acquire an interest therein in accordance with agreements duly entered into with me;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, I have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue thereon; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; I hereby convey to ASSIGNEE all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. I hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein;

> PATENT REEL: 047305 FRAME: 0720

PATENT/Joint Assignment Attorney Docket No.: 130-194 Assignee Docket No.: 112481.01

AND, I hereby further agree for myself and my executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their expense and charges, including the execution of applications for patents in foreign countries, and the execution of substitution, reissue, divisional or continuation applications and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, I do hereby authorize and request the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said ASSIGNEE, its successors, assigns, and legal representatives;

AND, I do hereby appoint as my attorneys Holmes W. Anderson and John C. Gorecki of Anderson Gorecki LLP, whose full office address is 2 Dundee Park, Suite 301A, Andover, MA 01810, and authorize them to prosecute the patent application(s) and correct errors in this Assignment and to insert any further identification and other information necessary or desirable to make this Assignment suitable for recording in a domestic or foreign Patent Office.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my seal as set forth below:

PATENT/Joint Assignment Attorney Docket No.: 138-194 Assignee Docket No.: 112481.91

Date: 10/22/2018	Inventor's Signature
rint full name of inventor	Sweetesh Singh
esidence	
itizenship	India
ailing Address	176 South Street
	Hopkinton, MA 01748
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vas personally present and did see S vho is personally known to me, exec Lowa Salyawat Sight Signed at EMC, Bangalore on this day, 10/22 Subsamoul Padmawabhan 3 - 3 o 2 , SAL KRUPA ELIT vas personally present and did see S vho is personally known to me, exec	weetesh Singh (name of person signing the assignment), bute the above assignment. (signature of first witness) (location of witness signature) 2018 (date of signature). (signature of first witness) (location of witness signature) (signature of first witness) (location of witness signature) (signature of first witness) (location of witness signature) (location of witness signature)

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