504726549 01/12/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

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EPAS ID: PAT4773273

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|------------------|----------------|
| SHELESH CHOPRA | 01/08/2018 |
| GURURAJ KULKARNI | 01/08/2018 |

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: | 15866555 |

CORRESPONDENCE DATA

Fax Number: (713)658-2553

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

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| ATTORNEY DOCKET NUMBER: 170360-018600US | |
|---|-----------------|
| NAME OF SUBMITTER: | COURTNEY GRAVES |
| SIGNATURE: | /Aly Z. Dossa/ |
| DATE SIGNED: | 01/11/2018 |

Total Attachments: 4

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PATENT 504726549 REEL: 044605 FRAME: 0268

ASSIGNMENT

WHEREAS, we, Shelesh Chopra and Gururaj Kulkarni 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 SYSTEM AND METHOD FOR EFFICIENT DATA ACCESS FOR RESTORES, the specification of which:

| [] | is being executed on even date herewith and is about to be filed in the United States Patent Office; |
|-----|--|
| [X] | was filed January 10,2018 as U.S. Application No. 15/866,555 ; |
| [] | was patented under U.S. Patent Noon |

WHEREAS, EMC IP Holding Company LLC (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the Commonwealth of Massachusetts and 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 us;

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, we 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; we 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. We 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;

AND, we hereby further agree for ourselves and our 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

PATENT REEL: 044605 FRAME: 0269 giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, we 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.

IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals as set forth below:

| Date: 08—Jan-2018 | | |
|--|--------------------------------|--|
| | Inventor's Signature | |
| Print full name of first inventor: | Shelesh Chopra | |
| Residence: | India | |
| Citizenship: | India | |
| Mailing Address: | c/o EMC IP Holding Company LLC | |
| | 176 South Street | |
| | Hopkinton, MA 01748 | |
| I CHIMAN SATYAN (name) whose residential address is 20014 15th 10th 15th 15th 15th 15th 15th 15th 15th 15 | | |
| I RAT KAMAL SINGH (name) whose residential address is 113. Mahaver Mayvel, Kadichikanahalli, Bangalue was personally present and did see SHELESH CHOPLA (name of person signing the assignment) who is personally known to me, execute the above assignment. (signature of second witness) Signed at RANGALORE (location of witness signature) on this day 8th January of 2018. (date of signature) | | |
| | | |

| Date: 4 ⁿ Jun 2018 | Valence i | |
|--|--------------------------------|--|
| | Inventor's Signature | |
| Print full name of second inventor: | Gururaj Kulkarni | |
| Residence: | India | |
| Citizenship: | India | |
| Mailing Address: | c/o EMC IP Holding Company LLC | |
| | 176 South Street | |
| | Hopkinton, MA 01748 | |
| was personally present and did see AURU FAT VULVARY (name of person signing the assignment) who is personally known to me, execute the above assignment. (signature of first witness) Signed at BOUGO of 20/B. (date of signature) | | |
| I RAT KAMAL SINGH (name) whose residential address is NS, Malancex Marvel, Yodichikanahali, Rangalet. was personally present and did see RURURAT YULKARNI (name of person signing the assignment) who is personally known to me, execute the above assignment. (signature of second witness) Signed at RANGALORE (location of witness signature) on this day RIN January of 20 18 (date of signature) | | |
| | | |

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PATENT REEL: 044605 FRAME: 0272