

<b>PATENT ASSIGNMENT COVER SHEET</b>
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Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT4602997

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
RAHUL B. UGALE	07/24/2017
SATISH KUMAR KASHI VISVANATHAN	07/27/2017
MAHESH KAMAT	08/14/2017
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	EMC IP HOLDING COMPANY LLC
<b>Street Address:</b>	176 SOUTH STREET
<b>City:</b>	HOPKINTON
<b>State/Country:</b>	MASSACHUSETTS
<b>Postal Code:</b>	01748
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15663385
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<i>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.</i>	
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<b>ATTORNEY DOCKET NUMBER:</b>	170360-017100US
<b>NAME OF SUBMITTER:</b>	ALY Z. DOSSA
<b>SIGNATURE:</b>	/Aly Z. Dossa/
<b>DATE SIGNED:</b>	09/20/2017
<b>Total Attachments: 5</b>	
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## ASSIGNMENT

**WHEREAS**, we, Rahul B. Ugale, Satish Kumar Kashi Visvanathan, and Mahesh Kamat 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 A DEVICE AND METHOD FOR EXTENDING CACHE OPERATIONAL LIFETIME, the specification of which:

- is being executed on even date herewith and is about to be filed in the United States Patent Office;
- was filed on July 28, 2017 as U.S. Application No. 15/663,385;
- was patented under U.S. Patent No. \_\_\_\_\_ on \_\_\_\_\_.

**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 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: 7/24/2017

R. UGale  
Inventor's Signature

Print full name of first inventor: **Rahul B. UGALE**  
Residence: Santa Clara, CA, US  
Citizenship: India  
Mailing Address: c/o EMC IP Holding Company LLC  
176 South Street  
Hopkinton, MA 01748

I JAYASEKHAR KONDIRY (name) whose residential address is  
870 E Elcamino Road, Sunnyvale  
was personally present and did see RAHUL UGALE (name of person signing  
the assignment) who is personally known to me, execute the above assignment.

[Signature] (signature of first witness)

Signed at SANTA CLARA (location of witness signature)

on this day 7/25 of 2017 (date of signature)


I MAHADEV KARADIGUDDA (name) whose residential address is  
1208 SPADCH DR, SAN JOSE, CA 95117  
was personally present and did see RAHUL UGALE (name of person signing  
the assignment) who is personally known to me, execute the above assignment.

[Signature] (signature of second witness)

Signed at SANTA CLARA (location of witness signature)

on this day 7/25 of 2017 (date of signature)

Date: 7/27/2017

  
Inventor's Signature

Print full name of second inventor: **Satish Kumar KASHI VISVANATHAN**  
Residence: San Jose, CA, US  
Citizenship: US  
Mailing Address: c/o EMC IP Holding Company LLC  
176 South Street  
Hopkinton, MA 01748

I NEERAS KUMAR N. CHOURA (name) whose residential address is  
1180 REED AVE, APT# 19  
was personally present and did see SATISH KUMAR (name of person signing  
the assignment) who is personally known to me, execute the above assignment.

 (signature of first witness)

Signed at SANTA CLARA (location of witness signature)

on this day 7/27 of 20 17 (date of signature)

I Shyam Burkule (name) whose residential address is  
592 Mansion dr Apt 102 Santa Clara  
was personally present and did see Satish Kumar (name of person signing  
the assignment) who is personally known to me, execute the above assignment.

 (signature of second witness)

Signed at Santa Clara (location of witness signature)

on this day 27 July of 20 17 (date of signature)

Date: 08/14/2017

  
Inventor's Signature

Print full name of third inventor: **Mahesh KAMAT**  
Residence: San Jose, CA, US  
Citizenship: US  
Mailing Address: c/o EMC IP Holding Company LLC  
176 South Street  
Hopkinton, MA 01748

I BHIMSEN BHANJOIS (name) whose residential address is  
40 JAPALA CT, FREMONT CA 94539  
was personally present and did see MAHESH KAMAT (name of person signing  
the assignment) who is personally known to me, execute the above assignment.

  
(signature of first witness)

Signed at Santa Clara, CA (location of witness signature)

on this day August 14, of 2017. (date of signature)

I ENGINO KODY (name) whose residential address is  
324 ROCKING HORSE CT, DUBLIN CA 94568  
was personally present and did see MAHESH KAMAT (name of person signing  
the assignment) who is personally known to me, execute the above assignment.

  
(signature of second witness)

Signed at SANTA CLARA, CA (location of witness signature)

on this day AUGUST 14 of 2017. (date of signature)