## 505696001 09/27/2019

# PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
DAVID M BIERNACKI	08/13/2019
DEBRA ROBITAILLE	08/13/2019
MARK ARAKELIAN	08/26/2019
VENKAT REDDY	08/08/2019
BELAGAPU KUMAR	08/12/2019
SUHAS K B	08/08/2019
TAMILARASAN JANAKIRAMAN	09/05/2019

### 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:	16543712

### CORRESPONDENCE DATA

**Fax Number:** (978)264-4001

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.

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

Phone: 978-264-4001 Email: john@gorecki.us

Correspondent Name: ANDERSON GORECKI LLP
Address Line 1: 2 DUNDEE PARK, SUITE 301A
Address Line 2: ATTN: JOHN C GORECKI

Address Line 4: ANDOVER, MASSACHUSETTS 01810

ATTORNEY DOCKET NUMBER: 130-205

NAME OF SUBMITTER: JOHN C GORECKI, REG NO. 38471

SIGNATURE: /John C Gorecki/

DATE SIGNED: 09/27/2019

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505696001 REEL: 050518 FRAME: 0366

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# Total Attachments: 9 source=130-205 assignment#page1.tif source=130-205 assignment#page2.tif source=130-205 assignment#page3.tif source=130-205 assignment#page4.tif source=130-205 assignment#page5.tif source=130-205 assignment#page6.tif source=130-205 assignment#page7.tif source=130-205 assignment#page8.tif source=130-205 assignment#page8.tif source=130-205 assignment#page8.tif

PATENT REEL: 050518 FRAME: 0367

### ASSIGNMENT

WHEREAS, we, David M. Biernacki, Debra Robitaille, Mark Arakelian, Venkat Reddy, Belagapu Kumar, Suhas K B, and Tamilarasan Janakiraman, 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

# METHOD AND APPARATUS FOR PREDICTING ERRORS IN TO-BE-DEVELOPED SOFTWARE UPDATES,

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 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;

AND, we do hereby appoint as our 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, we have hereunto set our hands and affixed our seals as set forth below:

Date: 8 13/2019	WINTER
\$200c	Inventor's Signature
Print full name of inventor	David M. Biernacki
Residence	Woonsocket, RI
Citizenship	USA
Mailing Address	176 South Street
	Hopkinton, MA 01748
	Real name of first witness), whose residential address is
	d M. Biernacki (name of person signing the
assignment), who is personally known to	
muymuson	(signature of first witness)
Signed at 174 SOFN S on this day, 180 SES 57 13	Clocation of witness signature)
1. Judith Hatisian 24 Cloverled Rd.	_(name of second witness), whose residential address is Lesminster MA-0/45-3
was personally present and did see Davi	id M. Biernacki (name of person signing the
assignment), who is personally known t	o me, execute the above assignment.
	(signature of second witness)  (A) (Mathematical Mathematical of witness signature)  (A), 2019 (date of signature).

Date: <u>August</u> 13 2019	Duhn Rolutullo	
	Inventor's Signature	
Print full name of inventor	Debra Robitaille	
Residence	Hopkinton, MA	
Citizenship	USA	
Mailing Address	176 South Street	
	Hopkinton, MA 01748	
39 Cloverleaf Rd. Leov	*	
was personally present and did see Debra Re	bitaille (name of person signing the assignment),	
who is personally known to me, execute the above assignment.		
Signed at 176 South St. Hopkitton, HA (location of witness signature) on this day, Quyest 13, , 2019 (date of signature).		
· ····································	ne of second witness), whose residential address is	
	bitaille (name of person signing the assignment),	
who is personally known to me, execute the	above assignment.	
marmasan	(signature of second witness)	
Signed at 176 S007451-X0	(location of witness signature)	
on this day, <u>AUGOST17</u>	, 2019 (date of signature).	

Date: 8/26/2019	
	Inventor's Signature
Print full name of inventor	Mark Arakelian
Residence	Shirley, MA
Citizenship	USA
Mailing Address	176 South Street
	Hopkinton, MA 01748
I, <u>Jennika Paley</u>	(name of first witness), whose residential address is
	<u> </u>
was personally present and did see	Mark Arakelian (name of person signing the assignment),
who is personally known to me, exc	ecute the above assignment.
<u> </u>	(signature of first witness)
Signed at 174 Som St.	Hopkin to A (location of witness signature)
on this day, Angest Zie	, 2019 (date of signature).
I, <u>Elizebeth I Holtsh</u> 151 Rochace St	(name of second witness), whose residential address is
	Mark Arakelian (name of person signing the assignment),
who is personally known to me, exc	
ZIzalii 19 Hoter	(signature of second witness)
Signed at 174 South Street	<u>Hook when M4</u> (location of witness signature)
Signed at 174 South Street, Hopkinton, M4 (location of witness signature) on this day, August 26 , 2019 (date of signature).	

Date: 8-Aug - 2019	Inventor's Signature
Print full name of inventor	Venkat Reddy
Residence	Bangalore, India
Citizenship	India
Mailing Address	176 South Street
·	Hopkinton, MA 01748
was personally present and did see Venkat I is personally known to me, execute the abov	_ (signature of first witness) (location of witness signature)
# 158 Takk as and you kee was personally present and did see Venkat I is personally known to me, execute the above	Reddy (name of second witness), whose residential address is  Reddy (name of person signing the assignment), who re assignment.  (signature of second witness) (location of witness signature)  , 2019 (date of signature).

Date: 12- Aug - 2019	Inventor's Signature
Print full name of inventor	Belagapu Kumar
Residence	Bangalore, India
Citizenship	India
Mailing Address	176 South Street
	Hopkinton, MA 01748
13th cross kaggadas p	ume of first witness), whose residential address is zura, Rangalore, India, u Kumar (name of person signing the assignment), above assignment.
J. Yamlans	_ (signature of first witness)
Signed at Kangalore, India	(location of witness signature)
on this day, grand August	(location of witness signature), 2019 (date of signature).
I, SUHDS. K.B (name of second witness), whose residential address is  1158 Jokkos Ordra, kornaugla 157 block, Barglorf, Ted. 9  was personally present and did see Belagapu Kumar (name of person signing the assignment),  who is personally known to me, execute the above assignment.	
<u>Seloko</u>	_ (signature of second witness)
Signed at 5 angury, "Codi V	(location of witness signature) _, 2019 (date of signature).
on this day, 8 +10.905.	_, 2019 (date of signature).

Date: 8th August 2019	Suhaskl		
U	Inventor's Signature		
Print full name of inventor	Suhas K B		
Residence	Bangalore, India		
- Citizenship	India		
Mailing Address	176 South Street		
	Hopkinton, MA 01748		
I, Tamilarasan Tanakiraman (name of first witness), whose residential address is  17th Cross, kaggadas pura, Rangolore, India.  was personally present and did see Suhas K B (name of person signing the assignment), who is personally known to me, execute the above assignment.  (signature of first witness)  Signed at Rangabre, India (location of witness signature) on this day, Rangabre, 12019 (date of signature).			
I, WENDAM MENDAM (name of second witness), whose residential address is  (I), (MISCENTI CLASSIC, 12 MAIN, RIMIQUANT, MANAGERET)  was personally present and did see Suhas KB (name of person signing the assignment), who is  personally known to me, execute the above assignment.  (signature of second witness)  Signed at MANAGERET, 1 NOT B (location of witness signature)  on this day, Of Arg. 2019 (date of signature).			

Date: 5th September 2019	T. Canilan 1 Inventor's Signature
Print full name of inventor	Tamilarasan Janakiraman
Residence	Hosur, India
Citizenship	India
Mailing Address	176 South Street
	Hopkinton, MA 01748
was personally present and did see Tamilara: assignment), who is personally known to me,	(signature of first witness)(location of witness signature)
#277/K, Sittappa Weny, & cr	ne of second witness), whose residential address is  OAA, Neco hippasary ya, Banzal bre  san Janakiraman (name of person signing the  execute the above assignment.
Mangenally ks.  Signed at Bangalors on this day, 5 9 2019.	(signature of second witness) (location of witness signature) , 2019 (date of signature).

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