504754234 01/30/2018

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
HAIM RAMAN	01/28/2018
TAMAR VANDY	01/30/2018
ADI PEER	01/29/2018
AVIRAM SHTERENBAUM	01/29/2018
KARIN DACHES	01/30/2018
ITZIK SORANI	01/29/2018

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:	15883704

CORRESPONDENCE DATA

Fax Number: (203)255-6570

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: 2032556560 Email: car@rml-law.com MICHAEL J. COOPER **Correspondent Name:**

Address Line 1: 2425 POST ROAD, SUITE 204 Address Line 2: RYAN, MASON & LEWIS, LLP

Address Line 4: SOUTHPORT, CONNECTICUT 06824

DATE SIGNED:	01/30/2018	
SIGNATURE:	/Michael J. Cooper/	
NAME OF SUBMITTER:	MICHAEL J. COOPER	
ATTORNEY DOCKET NUMBER:	110104.01	

PATENT REEL: 044773 FRAME: 0458 504754234

Total Attachments: 7 source=4414-919_ASM#page1.tif source=4414-919_ASM#page2.tif source=4414-919_ASM#page3.tif source=4414-919_ASM#page4.tif source=4414-919_ASM#page5.tif source=4414-919_ASM#page6.tif source=4414-919_ASM#page7.tif

PATENT REEL: 044773 FRAME: 0459

ASSIGNMENT

WHEREAS, we, Haim Raman, Tamar Vardy, Adi Peer, Aviram Shterenbaum, Karin Daches and Itzik Sorani, 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 DYNAMIC CHALLENGE QUESTION-BASED AUTHENTICATION, the specification of which:

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

WHEREAS, EMC IP Holding Company LLC (hereinafter "ASSIGNEE"), a limited liability company organized and existing under the laws of the State of Delaware 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,

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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:

28/01/2018 Date	Haim Raman
On this 28 day of Javaa known to be the individual who of the same.	, 20 <u>8</u> , before me personally came Haim Raman, to me executed the foregoing instrument, and acknowledged execution
Witness 1:	Rachel Orov
	Name
28/01/2018 Date	and the second s
Date	Signature
Witness 2:	Or Milshtain
	Name
30/1/2018	And the second s
Date	Signature

30/01/2018	2011
Date	Tamar Vardy
On this 30 day of January known to be the individual who exe of the same.	, 20 <u>18</u> , before me personally came Tamar Vardy, to me cuted the foregoing instrument, and acknowledged execution
Witness 1:	Rade Droc
29.1.18	
Date	Signature
Witness 2:	Or Wil chtan
<u>30 [1] 20 18</u> Date	Signature .

29.1.2018	Adi
Date	Adi Peer
	20 18, before me personally came Adi Peer, to me known to the foregoing instrument, and acknowledged execution of the
Witness 1:	Rachel Dror Name
29118 Date	Signature
Witness 2:	Or Milshtein Name
30 11 1201 8 Date	Signature

29/1/16	
Date	Aviram Shterenbaum
On this 39 day of Januar me known to be the individue execution of the same.	3_, 20 <u>18,</u> before me personally came Aviram Shterenbaum, to all who executed the foregoing instrument, and acknowledged
Witness 1:	Name
29.1.18	eg r St
Date	Signature
Witness 2:	Or Milshtum Name
30/1/2018	<u>A</u>
Date	Signature

20/1/2018 Date 30th of January 2018	Karin Daches
On this 29 day of January, 2018 known to be the individual who executed the of the same.	, before me personally came Karin Daches, to me e foregoing instrument, and acknowledged execution
Witness 1:	Name
<u>24 18</u> Date	Signature
Witness 2:	Or Mightein Name
30/1/3018 Date	Signature

On this 29 day of Janary to be the individual who execute same.	(, 20 18), before me personally came Itzik Sorani, to me known ted the foregoing instrument, and acknowledged execution of the
Witness 1:	Radel Oor
	Name
28.1.18	=91973
Date	Signature
Witness 2:	Or milshtein
	Name
30/1/2018	A Comment of the comm
Date	Signatore

Itzik Sorani

30 / 01/ 2018 Date