PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Michael E. BAPPE	09/20/2012
Ronald CHAMBERS	09/25/2012
Vinay G. RAO	09/21/2012

RECEIVING PARTY DATA

Name:	EMC Corporation
Street Address:	176 South Street
City:	Hopkinton
State/Country:	MASSACHUSETTS
Postal Code:	01748

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13627594

CORRESPONDENCE DATA

Fax Number: 5083664688

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 5086162900

Email: docket@bainwoodhuang.com
Correspondent Name: Bruce D. Rubenstein, Esq.

Address Line 1: Bainwood, Huang & Associates, LLC

Address Line 2: 2 Connector Road

Address Line 4: Westborough, MASSACHUSETTS 01581

ATTORNEY DOCKET NUMBER:	1003-180
NAME OF SUBMITTER:	Bruce D. Rubenstein, Esq.

Total Attachments: 10

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PATENT REEL: 029240 FRAME: 0452 1362/594

CH \$40.00



PATENT REEL: 029240 FRAME: 0453

ASSIGNMENT

WHEREAS, we, Vinay G. Rao, Michael E. Bappe, and Ronald Chambers 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 **DETECTING BOGUS IOS IN A MULTIPATHING DRIVER** 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 Corporation (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, USA 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:

PATENT/Joint Assignment Attorney Docket No.: 1003-180 EMC Docket No.: EMC-12-490 9-20-12 Date: Inventor's Signature Print full name of second inventor: Michael E. Bappe Residence: 1017 Knobcone Pl., Loveland, CO, 80538 Citizenship: US Mailing Address: Same as above STATE/COMMONWEALTH OF Colorado **COUNTY OF** On this _______, 2012, then personally appeared before me the above-named MICHAEL E. BAPPE known to me through satisfactory evidence of identification [__] employee identification card; [X] driver's license; [__] (other)
_______ to be the person whose name is subscribed to the foregoing Assignment and acknowledged that he/she executed the same as his/her free act and deed for the purposes therein contained. **Notary Public** MARIKO BRYANT Print Name: NOTARY PUBLIC - STATE OF COLORADO

My Commission Expires July 20, 2015

-3-

My Commission expires 7

Date:	
	Inventor's Signature
Print full name of first inventor:	Vinay G. Rao
Residence:	C202, ND Oliva, 29/2A, Somsandrapalya,
	HSR Layout, Bangalore, Karnataka, 560102,
	IN
Citizenship:	IN
Mailing Address:	Same as above
l	(name) whose residential address is
was personally present and person signing the assignment) who assignment.	did see (name of is personally known to me, execute the above
· · · · · · · · · · · · · · · · · · ·	(signature of first witness)
Signed at	(location of witness signature)
on this day	of 2012. (date of signature)
	(name) whose residential address is
	did see (name of is personally known to me, execute the above
	(signature of second witness)
Signed at	(location of witness signature)
on this day	of 2012. (date of signature)

Date: 9-25-70/2	Ronald Chankers
	Inventor's Signature
Print full name of second inventor:	Ronald Chambers
Residence:	129 Frey Avenue, Fort Collins, CO, 80521
Citizenship:	US
Mailing Address:	Same as above
STATE/COMMONWEALTH OF Loto	rimer
me the above-named RONALD CHAMBE evidence of identification [] employee ic (other) # 92/842453	lentification card; [X] driver's license; [] to be the person whose name is nd acknowledged that he/she executed the
	Maureen A. West
and the second second	Notary Public 199440017/6
MAUREEN A. WEITZ NOTARY PUBLIC	Print Name:
STATE OF COLORADO	Mauren A. Wester
My Commission Expires 03/06/2014	My Commission expires 3 / 6 / 14

ASSIGNMENT

WHEREAS, we, Vinay G. Rao, Michael E. Bappe, and Ronald Chambers 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 DETECTING BOGUS IOS IN A MULTIPATHING DRIVER 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 N	Noon

WHEREAS, EMC Corporation (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, USA 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:

REEL: 029240 FRAME: 0459

PATENT/Joint Assignment Attorney Docket No.: <u>1003-180</u> EMC Docket No.: <u>EMC-12-490</u>

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 hereby authorize our attorneys Bainwood Huang & Associates LLC to insert here in parentheses (13/627, 594 September 36, 3013) the application number and filing date of said Application (or foreign counterpart application) to facilitate the recording or other official processing of this Assignment.

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

Date:	
	Inventor's Signature
Print full name of second inventor:	Michael E. Bappe
Residence:	1017 Knobcone Pl., Loveland, CO, 80538
Citizenship:	US
Mailing Address:	Same as above
STATE/COMMONWEALTH OF	
COUNTY OF	
me the above-named MICHAEL E. BA	, 2012, then personally appeared before APPE known to me through satisfactory evidence ation card; [] driver's license; [] (other)_ to be the person whose name is subscribed to
the foregoing Assignment and acknow free act and deed for the purposes the	ledged that he/she executed the same as his/her
	Notary Public
	· ·
	Print Name:
	My Commission expires / /

Date: 21/09/2012	Q. Vivey Ru.
	Inventor's Signature
Print full name of first inventor:	Vinay G. Rao
Residence:	C202, ND Oliva, 29/2A, Somsandrapalya,
	HSR Layout, Bangalore, Karnataka, 560102,
	IN
Citizenship:	IN
Mailing Address:	Same as above
KANGYMPETA SPIMVAS	(name) whose residential address is YAWAGAR L T BLOCF, BANGALORE - 5'60041 see (name of
8 33 A CROSS 11 MAIN, JA	YAWAGAR LT BLOCK, BANGALORE - 560042
person signing the assignment) who is p	ersonally known to me, execute the above
assignment.	
Svinival	(signature of first witness)
Signed at BANGALORE	(location of witness signature)
on this day 21 SEPTEMBER	
	of 2012. (date of digitator)
۸ —	
THE BALAKRISHNAN	(name) whose residential address is
was personally present and did	SEE G VINAY RAD (name of
person signing the assignment) who is p	ersonally known to me, execute the above
assignment.	
	(signature of second witness)
Signed at 13 ANGALORC	(location of witness signature)
on this day 21 September	of 2012. (date of signature)

-4-

Date:	
	Inventor's Signature
Print full name of second inventor:	Ronald Chambers
Residence:	129 Frey Avenue, Fort Collins, CO, 80521
Citizenship:	US
Mailing Address:	Same as above
STATE/COMMONWEALTH OF	
COUNTY OF	
me the above-named RONALD CHAM evidence of identification [] employe (other)	, 2012, then personally appeared before MBERS known to me through satisfactory see identification card; [] driver's license; [] to be the person whose name is nt and acknowledged that he/she executed the the purposes therein contained.
	Notary Public
	Print Name:
	My Commission expires / /

-5-