# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4833136

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
DEEPAK VOKALIGA	01/04/2016
BENJAMIN YODER	12/30/2015
VADIM LONGINOV	01/08/2016
GEORGE QUILL	01/20/2016
BENOIT JOSEPH MERLET	01/04/2016

### **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:	15901038

## **CORRESPONDENCE DATA**

Fax Number:

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:** 508-898-8601

Email:docketing@WESTBORO-IP.COMCorrespondent Name:MUIRHEAD AND SATURNELLI, LLCAddress Line 1:200 FRIBERG PARKWAY, SUITE 1001

Address Line 4: WESTBOROUGH, MASSACHUSETTS 01581

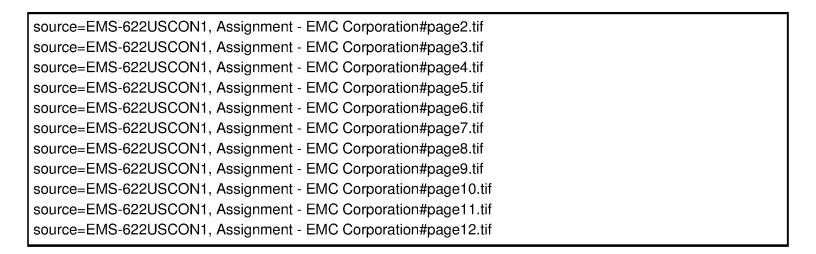
ATTORNEY DOCKET NUMBER:	EMS-622USCON1
NAME OF SUBMITTER:	ANNE E. SATURNELLI
SIGNATURE:	/Anne E. Saturnelli/
DATE SIGNED:	02/21/2018

**Total Attachments: 12** 

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PATENT REEL: 044987 FRAME: 0097

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PATENT REEL: 044987 FRAME: 0098

#### ASSIGNMENT

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WHEREAS, we, Deepak VOKALIGA, Benjamin YODER, Vadim LONGINOV, George QUILL and Benoit Joseph MERLET, 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 MAINTAINING WRITE CONSISTENCY ON DISTRIBUTED MULTIPLE PAGE WRITES, the specification of which:

	is being executed on eve	en 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 No on	_

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 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;

PATENT REEL: 044987 FRAME: 0099

<b>AND</b> , we do hereby authorize and req States to issue such Letters Patent as shall be thereon to said ASSIGNEE, its successors, as	granted upon said application or applications based signs, and legal representatives.
parenthesis (14/984,386 filed December 30,	of Muirhead and Saturnelli, LLC to insert here in 2015) the application number and interpart application) to facilitate the recording or
IN TESTIMONY WHEREOF, we have forth below:	nave hereunto set our hands and affixed our seals as
Date:	
	Inventor's Signature
Print full name of first inventor: Residence:	Deepak VOKALIGA 87 Wood Street Hopkinton, MA 01748
Citizenship: Mailing Address:	India Same
COMMONWEALTH OF MASSACHUSETT COUNTY OF	
employee identification card; [] driver's lice to be fl	15, then personally appeared before me the above- arough satisfactory evidence of identification [] ense; [] (other) he person whose name is subscribed to the he/she executed the same as his/her free act and
-	Notary Public
	Print Name:
	My Commission expires:

Date: 12/30/15	
	Benjami Goder Inventor's Signature
보는 이후 모든 집 경험을 하는데 모든	inventor's Signature
Print full name of second inventor:	Benjamin YODER
Residence:	9 Crestview Drive
	Westborough, MA 01581
Citizenship:	USA
Mailing Address:	Same
amed <b>Benjamin YODER</b> known to me to employee identification card; [V] dri to be the person whose r	15, then personally appeared before me the above- through satisfactory evidence of identification iver's license; [] (other) name is subscribed to the foregoing Assignment and me as his/her free act and deed for the purposes therein
contained.	
	Drianna wheen
BRIANNA GREEN	Notary Public
COMMONWEALTH OF MASSACHUSETTS My Commission Expires	Print Name: Brianna Green
Ontober 14, 2022	My Commission expires: October 14,2012

name of the same of the same interest the same sections of the same same that the same of the same of

Date:	
	Inventor's Signature
Print full name of third inventor:	Vadim LONGINOV
Residence:	16 Nolan Way
	Marlborough, MA 01752
Citizenship:	RUSSIA
Mailing Address:	Same
named Vadim LONGINOV known to employee identification card; [_] drive	2015, then personally appeared before me the aboveme through satisfactory evidence of identification [] er's license; [] (other)
	to be the person whose name is subscribed to the ed that he/she executed the same as his/her free act and
	Notary Public
	Print Name:
	My Commission expires:

Date:	
	Inventor's Signature
Print full name of fourth inventor:	George QUILL
Residence:	394 Middle Winchendon Road
	Rindge, NH 03461
Citizenship:	France and USA
Mailing Address:	Same
named George QUILL known to me thr	015, then personally appeared before me the above- rough satisfactory evidence of identification river's license: [ ] (other)
named George QUILL known to me thr  employee identification card; d  to be the person whose	ough satisfactory evidence of identification
contained,	1 1
	N. A. D. H.
	Notary Public
	Print Name:
	My Commission expires:

Date:	
	Inventor's Signature
Print full name of fifth inventor:	Benoit Joseph MERLET
Residence:	86 Bartlett Street
	Chelmsford, MA 01824
Citizenship:	France and USA
Mailing Address:	Same
On this day of, and a Benoit Joseph MERLET know employee identification card; []	2015, then personally appeared before me the above- vn to me through satisfactory evidence of identification driver's license: [ ] (other)
to be the person who	se name is subscribed to the foregoing Assignment and same as his/her free act and deed for the purposes therein
	Notary Public
	Print Name:
	My Commission expires:

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## **ASSIGNMENT**

WHEREAS, we, Deepak VOKALIGA, Benjamin YODER, Vadim LONGINOV, George QUILL and Benoit Joseph MERLET, 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 MAINTAINING WRITE CONSISTENCY ON DISTRIBUTED MULTIPLE PAGE WRITES, the specification of which:

	is being executed on even date herewith and is about to be filed in the Us	nited
	States Patent Office;	
[ X ]	was filed on December 30, 2015 as U.S. Application No. 14/984,376;	
[ ]	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 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;

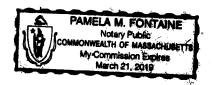
PATENT REEL: 044987 FRAME: 0105

	quest 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, as	ssigns, and legal representatives.	
	of Muirhead and Saturnelli, LLC to insert here in	
parenthesis (	) the application number and	
filing date of said Application (or foreign cou	interpart application) to facilitate the recording or	
other official processing of this Assignment.		
	have hereunto set our hands and affixed our seals as	
set forth below:		
- 64- CAN-2016	$\sim$	
Date: 64-JAH-2016	(ILAN)	
	Inventor's Signature	
Print full name of first inventor:	Deepak VOKALIGA	
Residence:	87 Wood Street	
	Hopkinton, MA 01748	
Citizenship:	India	
Mailing Address:	Same	
COMMONWEALTH OF MASSACHUSET	rs <sub>_</sub>	
COUNTY OF Middles	<u>ex</u>	
On this W day of Tanuary 20	16, then personally appeared before me the above-	
named Deapak VOKALICA known to me th	10, then personally appeared before me the above-	
complexes identification and [1] I drive a lie	arough satisfactory evidence of identification []	
employee identification card; [1] driver's lic		
to be t	he person whose name is subscribed to the	
	the/she executed the same as his/her free act and	
deed for the purposes therein contained.		
	X ( 100 1 70 la la	
	But M. Velanzala	
	Notary Public	
	Print Name: Linda M. Valanzola	
	My Commission expires:	
	bry Commission expires,	
	LINDA M. VALANZOLA	
	Notary Public	
	My Commission Expires	
	March 4, 2022	

Date:	
	Inventor's Signature
Print full name of second inventor:	Benjamin YODER
Residence:	9 Crestview Drive
	Westborough, MA 01581
Citizenship:	USA
Mailing Address:	Same
named <b>Benjamin YODER</b> known to me [] employee identification card; [] d	olfs, then personally appeared before me the above- through satisfactory evidence of identification river's license; [] (other) name is subscribed to the foregoing Assignment and
acknowledged that he/she executed the secontained.	ame as his/her free act and deed for the purposes therein
	Notary Public
	Print Name:
	My Commission expires:

Date: 01/08/2016	_d/m/-
	Inventor's Signature
Print full name of third inventor:	Vadim LONGINOV
Residence:	16 Nolan Way
	Marlborough, MA 01752
Citizenship:	RUSSIA (1/6) Same 1/08/16
Mailing Address:	Same 1/08/16
named Vadim LONGINOV known to remployee identification card; [] driverto	ol6, then personally appeared before me the above— me through satisfactory evidence of identification [1]  observed the person whose name is subscribed to the detail that he/she executed the same as his/her free act and  Notary Public  Print Name: Linda M. Valanzola
	Notary Public ,
	Print Name: Linda M. Valanzola
	My Commission expires:
	LINDA M. VALANZOLA  Notary Public  COMMONWEATH OF MASSACHUSETTE  My Commission Expires  March 4, 2022

Date: 1/20/2016	Geogle Winventor's Signature	
	inventor's digitature	
Print full name of fourth inventor:	George QUILL	
Residence:	394 Middle Winchendon Road	
	Rindge, NH 03461	
Citizenship:	USA	
Mailing Address:	Same	
COMMONWEALTH OF MASSACHUSETTS  COUNTY OF Loccester		
On this day of d		
	Notary Public	



Print Name: Pamela M Funtaine

My Commission expires: march 31, 3019

Date: Jan 4th 16	J. Hy
	Inventor's Signature
Print full name of fifth inventor:	Benoit Joseph MERLET
Residence:	86 Bartlett Street
	Chelmsford, MA 01824
Citizenship:	France and USA
Mailing Address:	Same
COUNTY OF MICHIES	
named Benoit Joseph MERLET knows [	c name is subscribed to the foregoing Assignment and
acknowledged that he/she executed the s contained.	same as his/her free act and deed for the purposes therein
	Michele Bolya
Michele Relyea	Notary Public

Print Name: MMMUMUM My Commission expires: 1/1/2021

Michele Belyea NOTARY PUBLIC

Commonwealth of Massachusetts My Commission Expires Ien. 1, 2021