504212199 02/03/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT4258876

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
WALTER O'BRIEN	07/23/2015
ROBERT W. BEAUCHAMP	06/23/2015
STEVEN D. SARDELLA	06/23/2015
ANTONIO L. FONTES	06/18/2015

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:	14751666

CORRESPONDENCE DATA

Fax Number: (508)366-4688

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: 508-616-2900

Email: Docket@BainwoodHuang.com

BAINWOOD, HUANG & ASSOCIATES, LLC **Correspondent Name:**

Address Line 1: 2 CONNECTOR ROAD

Address Line 4: WESTBOROUGH, MASSACHUSETTS 01581

ATTORNEY DOCKET NUMBER:	1003-349
NAME OF SUBMITTER:	DAVID E. HUANG, ESQ.
SIGNATURE:	/David E. Huang/
DATE SIGNED:	02/03/2017

Total Attachments: 12

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PATENT REEL: 041169 FRAME: 0295 504212199

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PATENT REEL: 041169 FRAME: 0296

Attorney Docket No.: 1003-349 EMC Docket No.: EMC-15-0143

ASSIGNMENT

WHEREAS, I, <u>Walter O'Brien</u>, as the original inventor or an original joint inventor 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

PROVISIONING AN ENCLOSURE WITH PCIe CONNECTIVITY AND STORAGE DEVICES

which is further identified by Attorney Docket Number 1003-349;

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 me;

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. I 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 me had this assignment and sale not been made; I 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. I 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;

EMC Docket No.: EMC-15-0143

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, I 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 I hereby authorize the attorneys at Bainwood Huang & Associates LLC to insert here in parentheses (14 751, 666 Toles on 6/26/3015 the application number and filing date of said application (or foreign counterpart application) to facilitate the recording or other official processing of this Assignment.

PATENT ASSIGNMENT Attorney Docket No.: 1003-349 EMC Docket No.: EMC-15-0143 Inventor's Signature

Date:

Legal name of inventor:

Residence:

Walter O'Brien

18 Brewer Drive

Westborough, MA 01581 U.S.A.

Citizenship:

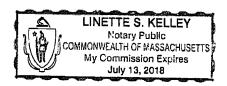
US

Mailing Address:

Same as above

STATE/COMMONWEALTH OF	Mossachusetts
COUNTY OF	Middlesex

On this 23 day of, 2015, then personally appeared before me the above-named Walter O'Brien known to me through satisfactory evidence of identification [X] employee identification card; [_] 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.



Attorney Docket No.: 1003-349 EMC Docket No.: EMC-15-0143

ASSIGNMENT

WHEREAS, I, Robert W. Beauchamp, as the original inventor or an original joint inventor 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

PROVISIONING AN ENCLOSURE WITH PCIe CONNECTIVITY AND STORAGE DEVICES

which is further identified by Attorney Docket Number 1003-349;

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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, I 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 me had this assignment and sale not been made; I 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. I 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:

PATENT ASSIGNMENT Attorney Docket No.: 1003-349 EMC Docket No.: EMC-15-0143

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, I 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 I hereby authorize the attorneys at Bainwood Huang & Associates LLC to insert here in parentheses (14/751, lold Filed on 6/36/3015) the application number and filing date of said application (or foreign counterpart application) to facilitate the recording or other official processing of this Assignment.

PATENT ASSIGNMENT Attorney Docket No.: 1003-349 EMC Docket No.: EMC-15-0143

Date: 6/23/2015	Tefut WEGALONS Inventor's Signature
Legal name of inventor:	Robert W. Beauchamp
Residence:	23 Barnes Hill Road
	Berlin, MA 01503 U.S.A.
Citizenship:	US
Mailing Address:	Same as above
On this	
-	Notary Public Nancy E. Buck
	My Commission expires 8 / 1/1 2017

Attorney Docket No.: 1003-349 EMC Docket No.: EMC-15-0143

ASSIGNMENT

WHEREAS, I, <u>Steven D. Sardella</u>, as the original inventor or an original joint inventor 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

PROVISIONING AN ENCLOSURE WITH PCIe CONNECTIVITY AND STORAGE DEVICES

which is further identified by Attorney Docket Number 1003-349;

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 me;

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, I 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 me had this assignment and sale not been made; I 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. I 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:

EMC Docket No.: EMC-15-0143

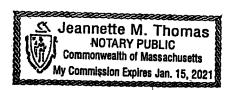
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AND I hereby authorize the attorneys at Bainwood Huang & Associates LLC to insert here in parentheses (14 75), bloo Field on blood (or foreign counterpart application) to facilitate the recording or other official processing of this Assignment.

EMC Docket No.: <u>EMC-15-0143</u>

Date: June 23, 2015	St. 8. July
	Inventor's Signature
Legal name of inventor:	Steven D. Sardella
Residence:	19 Valley View Drive
	North Grafton, MA 01536 U.S.A.
Citizenship:	US
Mailing Address:	Same as above
	ssachusetts Idlesex
On this	
· · · · · · · /	Notary Public
	Print Name: Jeannette M. Thomas
	My Commission expires / 1 15 1 2021



EMC Docket No.: EMC-15-0143

ASSIGNMENT

WHEREAS, I, Antonio L. Fontes, as the original inventor or an original joint inventor 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

PROVISIONING AN ENCLOSURE WITH PCIe CONNECTIVITY AND STORAGE DEVICES

which is further identified by Attorney Docket Number 1003-349;

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 me;

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, I 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 me had this assignment and sale not been made; I 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. I 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;

PATENT ASSIGNMENT Attorney Docket No.: 1003-349 EMC Docket No.: EMC-15-0143

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Attorney Docket No.: 1003-349 EMC Docket No.: EMC-15-0143

Date: 06/18/2015	Addition
	/ Inventor's Signature
Legal name of inventor:	Antonio L. Fontes
Residence:	477 Benson Road
	Northbridge, MA 01534 U.S.A.
Citizenship:	US
Mailing Address:	Same as above
STATE/COMMONWEALTH OF COUNTY OF	iscenisetts Collack
me the above-named Antonio L. Fontes k identification [V] employee identification	, 2015, then personally appeared before nown to me through satisfactory evidence of card; [] driver's license; [] (other) be the person whose name is subscribed to
	ged that he/she executed the same as his/her
	Mancy E. Suck
	Notary Public
	Print Name: Nancy E. Buck
	My Commission expires 8/11/