

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT6608601

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
GENG HAN	03/18/2021
RONALD D. PROULX	03/16/2021
SHAOQIN GONG	03/17/2021
BAOTE ZHUO	03/17/2021
XIAOBO ZHANG	03/16/2021
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:	17205305
CORRESPONDENCE DATA	
Fax Number:	
<i>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.</i>	
Phone:	508-898-8601
Email:	docketing@WESTBORO-IP.COM
Correspondent Name:	MUIRHEAD AND SATURNELLI, LLC
Address Line 1:	200 FRIBERG PARKWAY, SUITE 1001
Address Line 4:	WESTBOROUGH, MASSACHUSETTS 01581
ATTORNEY DOCKET NUMBER:	EMS-907US
NAME OF SUBMITTER:	ANNE E. SATURNELLI
SIGNATURE:	/ANNE E. SATURNELLI/
DATE SIGNED:	03/18/2021
Total Attachments: 30	
source=EMS-907US, Assignment#page1.tif	

source=EMS-907US, Assignment#page2.tif
source=EMS-907US, Assignment#page3.tif
source=EMS-907US, Assignment#page4.tif
source=EMS-907US, Assignment#page5.tif
source=EMS-907US, Assignment#page6.tif
source=EMS-907US, Assignment#page7.tif
source=EMS-907US, Assignment#page8.tif
source=EMS-907US, Assignment#page9.tif
source=EMS-907US, Assignment#page10.tif
source=EMS-907US, Assignment#page11.tif
source=EMS-907US, Assignment#page12.tif
source=EMS-907US, Assignment#page13.tif
source=EMS-907US, Assignment#page14.tif
source=EMS-907US, Assignment#page15.tif
source=EMS-907US, Assignment#page16.tif
source=EMS-907US, Assignment#page17.tif
source=EMS-907US, Assignment#page18.tif
source=EMS-907US, Assignment#page19.tif
source=EMS-907US, Assignment#page20.tif
source=EMS-907US, Assignment#page21.tif
source=EMS-907US, Assignment#page22.tif
source=EMS-907US, Assignment#page23.tif
source=EMS-907US, Assignment#page24.tif
source=EMS-907US, Assignment#page25.tif
source=EMS-907US, Assignment#page26.tif
source=EMS-907US, Assignment#page27.tif
source=EMS-907US, Assignment#page28.tif
source=EMS-907US, Assignment#page29.tif
source=EMS-907US, Assignment#page30.tif

ASSIGNMENT

WHEREAS, we, Geng HAN, Ronald D. PROULX, Shaoqin GONG, Baote ZHUO and Xiaobo ZHANG, 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 TECHNIQUES FOR STORAGE MANAGEMENT, 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 No. _____ on _____.

WHEREAS, EMC IP HOLDING COMPANY LLC (hereinafter "ASSIGNEE"), which is a corporation organized and existing under the laws 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, 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 attorneys of Muirhead and Saturnelli, LLC to insert here in parenthesis (17/205,305 filed March 18, 2021) 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: 2021.03.18



Inventor's Signature

Print full name of first inventor:

Geng HAN

Residence:

1-2-601 Shang Di Dong Li, Haidian District

Beijing 10010 China

Citizenship:

China

Mailing Address:

Same as above

Date:

Inventor's Signature

Ronald D. PROULX

Print full name of second inventor:

Residence:

50 Whitney Lane

Boxborough, MA 01719

Citizenship:

USA

Mailing Address:

Same as above

Date:

Inventor's Signature

Shaoqin GONG

Print full name of third inventor:

Residence:

5-4-501, District 4, LongYueYuan, HuiLo

Changping District

Beijing China 102208

Citizenship:

China

Mailing Address:

Same as above

Date:

Inventor's Signature

Print full name of fourth inventor:

Baote ZHUO

Residence:

NO.29, CHENGFU ROAD

Beijing China 10084

Citizenship:

China

Mailing Address:

Same as above

Date:

Inventor's Signature

Xiaobo ZHANG

Print full name of fifth inventor:

Residence:

Room 306, Building 2, Zao Ying Bei Li

Beijing China 100026

Citizenship:

China

Mailing Address:

Same as above

ASSIGNMENT

WHEREAS, we, Geng HAN, Ronald D. PROULX, Shaoqin GONG, Baote ZHUO and Xiaobo ZHANG, 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 TECHNIQUES FOR STORAGE MANAGEMENT, 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 No. _____ on _____.

WHEREAS, EMC IP HOLDING COMPANY LLC (hereinafter "ASSIGNEE"), which is a corporation organized and existing under the laws 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, 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 attorneys of Muirhead and Saturnelli, LLC to insert here in parenthesis (_____) 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 first inventor:

Geng HAN

Residence:

1-2-601 Shang Di Dong Li, Haidian District

Beijing 10010 China

Citizenship:

China

Mailing Address:

Same as above

Date: 3/16/2021



Inventor's Signature

Print full name of second inventor:

Ronald D. PROULX

Residence:

50 Whitney Lane

Boxborough, MA 01719

Citizenship:

USA

Mailing Address:

Same as above

Date:

Inventor's Signature

Shaoqin GONG

Print full name of third inventor:

Residence:

5-4-501, District 4, LongYueYuan, HuiLo

Changping District

Beijing China 102208

Citizenship:

China

Mailing Address:

Same as above

Date:

Inventor's Signature

Print full name of fourth inventor:

Baote ZHUO

Residence:

NO.29, CHENGFU ROAD

Beijing China 10084

Citizenship:

China

Mailing Address:

Same as above

Date:

Inventor's Signature

Xiaobo ZHANG

Print full name of fifth inventor:

Residence:

Room 306, Building 2, Zao Ying Bei Li

Beijing China 100026

Citizenship:

China

Mailing Address:

Same as above

ASSIGNMENT

WHEREAS, we, Geng HAN, Ronald D. PROULX, Shaoqin GONG, Baote ZHUO and Xiaobo ZHANG, 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 TECHNIQUES FOR STORAGE MANAGEMENT, 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 No. _____ on _____.

WHEREAS, EMC IP HOLDING COMPANY LLC (hereinafter "ASSIGNEE"), which is a corporation organized and existing under the laws 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, 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 attorneys of Muirhead and Saturnelli, LLC to insert here in parenthesis (_____) 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 first inventor:

Geng HAN

Residence:

1-2-601 Shang Di Dong Li, Haidian District

Beijing 10010 China

Citizenship:

China

Mailing Address:

Same as above

Date:

Inventor's Signature

Ronald D. PROULX

Print full name of second inventor:

Residence:

50 Whitney Lane

Boxborough, MA 01719

Citizenship:

USA

Mailing Address:

Same as above

Date: 2021.3.17

Shaoqin Gong

Inventor's Signature

Print full name of third inventor:

Shaoqin GONG

Residence:

5-4-501, District 4, LongYueYuan, HuiLo

Changping District

Beijing China 102208

Citizenship:

China

Mailing Address:

Same as above

Date:

Inventor's Signature

Print full name of fourth inventor:

Baote ZHUO

Residence:

NO.29, CHENGFU ROAD

Beijing China 10084

Citizenship:

China

Mailing Address:

Same as above

Date:

Inventor's Signature

Xiaobo ZHANG

Print full name of fifth inventor:

Residence:

Room 306, Building 2, Zao Ying Bei Li

Beijing China 100026

Citizenship:

China

Mailing Address:

Same as above

ASSIGNMENT

WHEREAS, we, Geng HAN, Ronald D. PROULX, Shaoqin GONG, Baote ZHUO and Xiaobo ZHANG, 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 TECHNIQUES FOR STORAGE MANAGEMENT, 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 No. _____ on _____.

WHEREAS, EMC IP HOLDING COMPANY LLC (hereinafter "ASSIGNEE"), which is a corporation organized and existing under the laws 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, 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 attorneys of Muirhead and Saturnelli, LLC to insert here in parenthesis (_____) 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 first inventor:

Geng HAN

Residence:

1-2-601 Shang Di Dong Li, Haidian District

Beijing 10010 China

Citizenship:

China

Mailing Address:

Same as above

Date:

Inventor's Signature

Ronald D. PROULX

Print full name of second inventor:

Residence:

50 Whitney Lane

Boxborough, MA 01719

Citizenship:

USA

Mailing Address:

Same as above

Date:

Inventor's Signature

Shaoqin GONG

Print full name of third inventor:

Residence:

5-4-501, District 4, LongYueYuan, HuiLo

Changping District

Beijing China 102208

Citizenship:

China

Mailing Address:

Same as above

Date: 2021/03/17

Baote Zhuo

Inventor's Signature

Print full name of fourth inventor:

Baote ZHUO

Residence:

NO.29, CHENGFU ROAD

Beijing China 10084

Citizenship:

China

Mailing Address:

Same as above

Date:

Inventor's Signature

Xiaobo ZHANG

Print full name of fifth inventor:

Residence:

Room 306, Building 2, Zao Ying Bei Li

Beijing China 100026

Citizenship:

China

Mailing Address:

Same as above

ASSIGNMENT

WHEREAS, we, Geng HAN, Ronald D. PROULX, Shaoqin GONG, Baote ZHUO and Xiaobo ZHANG, 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 TECHNIQUES FOR STORAGE MANAGEMENT, 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 No. _____ on _____.

WHEREAS, EMC IP HOLDING COMPANY LLC (hereinafter "ASSIGNEE"), which is a corporation organized and existing under the laws 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, 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 attorneys of Muirhead and Saturnelli, LLC to insert here in parenthesis (_____) 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 first inventor:

Geng HAN

Residence:

1-2-601 Shang Di Dong Li, Haidian District

Beijing 10010 China

Citizenship:

China

Mailing Address:

Same as above

Date:

Inventor's Signature

Ronald D. PROULX

Print full name of second inventor:

Residence:

50 Whitney Lane

Boxborough, MA 01719

Citizenship:

USA

Mailing Address:

Same as above

Date:

Inventor's Signature

Shaoqin GONG

Print full name of third inventor:

Residence:

5-4-501, District 4, LongYueYuan, HuiLo

Changping District

Beijing China 102208

Citizenship:

China

Mailing Address:

Same as above

Date:

Inventor's Signature

Print full name of fourth inventor:

Baote ZHUO

Residence:

NO.29, CHENGFU ROAD

Beijing China 10084

Citizenship:

China

Mailing Address:

Same as above

Date: 2021.3.16


Inventor's Signature

Print full name of fifth inventor:

Xiaobo ZHANG

Residence:

Room 306, Building 2, Zao Ying Bei Li

Beijing China 100026

Citizenship:

China

Mailing Address:

Same as above