| ATTO | DRNEY DOCKET NO.: 10830.0097.NPUS00 | 09-16-2003 | |
|---------|--|---|-----------------------------------|
| | 4 V/N U / | | 0 T 0 |
| To the | e Honorable Commissioner for Patents: Please r | 102551502 | opy(ies) thereof. |
| 1. | Name of Conveying Party(ies): | | 46 |
| | Rui Liang; Jiannan Zheng; Mark K. Ku; Xiaoye Jiang; | Sorin Faibish | 10 m |
| | Additional name(s) of conveying party(ies) attached? | ☐ Yes 🛛 No | 6 ← 1 |
| 2.Nan | ne and Address of Party(ies) receiving an interest (assignee | (s)): | 0 == |
| | Name: EMC Corporation | | |
| | Address: 176 South Street, Hopkington, MA 01 | 748 | |
| | Country: USA | | |
| | Additional name(s) and address(es) attached? | ☐ Yes 🗵 No | |
| 3. | Application number(s) or patent number(s): | | |
| | If this document is being filed together with a new appli | cation, the execution date(s) of the | *- |
| | | | August 19, 2003 |
| | A. Patent Application No(s).: | B. <u>Patent 1</u> | No(s).: |
| | | | |
| | Others on additional sheet(s) attached? Yes | ⊠ No | |
| 4. | Nature of Conveyance: 1/////CE/ | <u> </u> | |
| 4. | Assignment Assignment Merge | or \square Ch | ange of Name |
| | - | | her: |
| | Execution Date: August 19, 2003 | ny Agreement Ou | nor |
| 5. | | 6 Total number of applications | and natanta involvada |
| 3. | Name and address of party to whom correspondence concerning document should be mailed: | 6.Total number of applications Application(s): | 1 |
| | <u> </u> | + Patent(s): | |
| | Richard C. Auchterlonie, Esq. | = Total: | <u> </u> |
| | Howrey Simon Arnold & White, LLP 750 Bering Drive | 7.Total Fee (37 C.F.R. § 3.41) | \$40.00 |
| | Houston, Texas 77057-2198 | 8. Authorized to be charged to 1 | |
| | 713.787.1698 (Telephone) | 8. Authorized to be charged to h | Deposit Account 1 es |
| | 713.787.1440 (Facsimile) | 9.Deposit Account No.: 05-0 | 0889/EMC-03-061 |
| | | (Duplicate copy of thi | |
| | | X Charge any u | inderpayment or credit any |
| | | overpayment | to above Deposit Account |
| | DO NOT USE | E THIS SPACE | |
| 10.Sta | atement and Signature | | |
| | e best of my knowledge and belief, the foregoing informati | ion is true and correct and any at | tached copy is a true copy of the |
| _ | al document. | 9. 1.15Tun | - |
| _ | Richard C. Auchterlonie | uchteiten ne Ag. 30, 607 | August 22, 2003 |
|] | | • | Date |
| | Total number of pages including cover sl | neet, attachments, and document: | 6 Pages |
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PATENT REEL: 014480 FRAME: 0114

ASSIGNMENT

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency and adequacy of which are hereby acknowledged, the undersigned, does hereby:

SELL, ASSIGN AND TRANSFER to EMC CORPORATION (the "Assignee"), having a place of business at 176 South Street, Hopkinton, MA 01748, his entire right, title and interest for the United States and all foreign countries in and to any and all improvements which are disclosed in the application for United States Letters Patent, which has been executed by the undersigned concurrently herewith and is entitled "MULTI-PROTOCOL SHARABLE VIRTUAL STORAGE OBJECTS MANAGEMENT AND CONTROL," such application and all divisional, continuing, substitute, renewal, reissue and all other applications for patent which have been or shall be filed in the United States and all foreign countries on any of such improvements; all original and reissued patents which have been or shall be issued in the United States and all foreign countries on such improvements; and specifically including the right to file foreign applications under the provisions of any convention or treaty and claim priority based on such application in the United States;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such improvements to the Assignee;

WARRANT AND COVENANT that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or will be made to others by the undersigned, and that the full right to convey the same as herein expressed is possessed by the undersigned;

COVENANT, when requested and at the expense of the Assignee, to carry out in good faith the intent and purpose of this assignment, the undersigned will execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all such improvements; execute all rightful oaths, declarations, assignments, powers of attorney and other papers; communicate to the Assignee all facts known to the undersigned relating to such improvements and the history thereof; and generally do everything possible which the Assignee shall consider desirable for vesting title to such improvements in the Assignee, and for securing, maintaining and enforcing proper patent protection for such improvements;

H: 536215(BHQV01!.DOC)

PATENT REEL: 014480 FRAME: 0115 ASSIGNMENT - MULTI-PROTOCOL SHARABLE VIRTUAL STORAGE OBJECTS MANAGEMENT AND CONTROL

TO BE BINDING on the heirs, assigns, representatives and successors of the undersigned and extend to the successors, assigns and nominees of the Assignee. Date: 8/19/2003 Name: Rui Liang STATE OF Massachusetts COUNTY OF Worcester) foregoing instrument and acknowledged to me that he executed the same of his own free will for the purposes and consideration therein expressed. Notary or Consular Officer May 14, 2010 [SEAL] Signature: Name: Viannan Zheng Date: 08/19/2003 STATE OF Massachusetts)

COUNTY OF Warester) BEFORE ME, the undersigned authority, on this 19 day of Quy, 2003, personally appeared: Jiannan Zheng, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same of his own free will for the purposes and consideration therein expressed. Notary or Consular Officer

My Cammission Expires May 14, 2010 [SEAL]

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 ${\tt ASSIGNMENT-MULTI-PROTOCOL\ SHARABLE\ VIRTUAL\ STORAGE\ OBJECTS\ MANAGEMENT\ AND\ CONTROL$

| Signature: Mark K. Ku | Date: 8/19/03 | | | |
|--|--|--|--|--|
| STATE OF Massochusetts)) ss. COUNTY OF Worcestar) | | | | |
| COUNTY OF ledorcester) | | | | |
| BEFORE ME, the undersigned authority, on this $///$ day of $//$ day of $//$ day of $//$ day of $//$ personally appeared Mark K. Ku, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same of his own free will for the purposes and consideration therein expressed. | | | | |
| [SEAL] | My Commission Expines May 14, 2010 | | | |
| | THY CEMMISSIEN THE STORY | | | |
| Signature: Name: Xiaoye Jiang | Date: 8/19/2003 | | | |
| STATE OF Massachusetts)) ss. COUNTY OF Loorcester) | | | | |
| COUNTY OF Lorcester) | | | | |
| BEFORE ME, the undersigned authority, on this 19 day of 2 | | | | |
| FOT AT 3 | otary or Consular Officer My Commission Expires May 14,2000 | | | |

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ASSIGNMENT - MULTI-PROTOCOL SHARABLE VIRTUAL STORAGE OBJECTS MANAGEMENT AND CONTROL

| Signature: Failurk | Date: 08(19/2003 |
|------------------------------|------------------|
| Name: Sorin Faibish | |
| STATE OF Massachusetts) | |
| COUNTY OF Averages for) ss. | |

BEFORE ME, the undersigned authority, on this 19 day of Quest, 2003, personally appeared Sorin Faibish, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same of his own free will for the purposes and consideration therein expressed.

[SEAL]

Notary or Consular Officer

My Commission Expires May 4, 2010

HOWREY SIMON ARNOLD & WHITE, LLP

750 Bering Drive Houston, Texas 77057-2198

RECORDED: 08/22/2003

1299 Pennsylvania Avenue, N.W. Washington, DC 20004

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PATENT REEL: 014480 FRAME: 0118