REC(04	-11-2005 3HEET
	and ariginal decomposits or converte areas
To the Honorable Commissioner of 102	2977153
1. Name of conveying party(ies)	2. Name and i receiving party(ies)
Ralph C. Frangioso, Jr. (executed on March 28, 2005) Thomas J. Connor, Jr. (executed on March 29, 2005)	Name: EMC Corporation
Robert p. Wierzbicki (executed on March 29, 2005)	
Michael L. Schillinger (executed on March 28, 2005) Steven R. Cieluch (executed on March 28, 2005)	Internal Address:
Keith C. Johnson (executed on March 29, 2005)	· · · · · · · · · · · · · · · · · · ·
Additional name(s) of conveying party(ies) attached? [] Yes [X] No	<u> </u>
Nature of conveyance:	Street Address: 176 South Street
X] Assignment [] Merger	
] Security Agreement [] Change of Name	City: Hopkinton State: MA ZIP: 01748
] Other	
Execution Date: Please See Box 1	Additional name(s) & address(es) attached? [] Yes [X] No
4. Application number(s) or patent number(s): If this document is being filed together with a new application A. Patent Application No.(s) /2005 HLE333 00000037 11092535	
If this document is being filed together with a new application A. Patent Application No.(s) /2005 HLE333 00000037 11092535 :8021	03-28-05, 03-28-05 & 03-29-05 B. Patent No.(s)
A. Patent Application No.(s) /2005 HLE333 00000037 11092535 28021 Additional n	03-28-05, 03-28-05 & 03-29-05 B. Patent No.(s) numbers attached? [] Yes [x] No
If this document is being filed together with a new application A. Patent Application No.(s) /2005 HLE333 00000037 11092535 :8021	03-28-05, 03-28-05 & 03-29-05 B. Patent No.(s)
A. Patent Application No.(s) /2005 HLE333 00000037 11092535	03-28-05, 03-28-05 & 03-29-0 B. Patent No.(s) numbers attached? [] Yes [x] No
A. Patent Application No.(s) /2005 HLE333 00000037 11092535	B. Patent No.(s) Description
A. Patent Application No.(s) /2005 HLE333 00000037 11092535	B. Patent No.(s) Description
A. Patent Application No.(s) /2005 HLE333 00000037 11092535	B. Patent No.(s) Description
A. Patent Application No.(s) /2005 HLE333 00000037 11092535	B. Patent No.(s) 6. Total number of applications and patents involved: [1] 7. Total Fee (37 C.F.R. 3.41)
A. Patent Application No.(s) /2005 HLE333 00000037 11092535	B. Patent No.(s) Description
If this document is being filed together with a new application A. Patent Application No.(s) /2005 HLE333 00000037 11092535	B. Patent No.(s) Deposit account number:
If this document is being filed together with a new application A. Patent Application No.(s) /2005 HLE333 00000037 11092535	B. Patent No.(s) B. Patent No.(s)
If this document is being filed together with a new application A. Patent Application No.(s) /2005 HLE333 00000037 11092535	B. Patent No.(s) 6. Total number of applications and patents involved: [1] 7. Total Fee (37 C.F.R. 3.41)
A. Patent Application No.(s) /2005 HLE333 00000037 11092535	B. Patent No.(s) B. Patent No.(s)

PATENT/Joint Assignment
Attorney Docket No.: EMC05-02(05035)
EMC Docket No.: EMC-05-035
Express Mail Mailing Label No. EV 403 760 077 US

ASSIGNMENT

WHEREAS, we, Ralph C. Frangioso, Jr., Thomas J. Connor, Jr., Robert P. Wierzbicki, Michael L. Schillinger, Steven R. Cieluch, and Keith C. Johnson 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 REDUNDANT COMPUTING FROM WITHIN A 1U FORM FACTOR WITH IMPROVED SERVICEABILITY AND HIGH AVAILABILITY CHARACTERISTICS, the specification of which:

[X]	States Patent Office;	erewith and is about to be filed in the United
[]	was filed on	as U.S. Application No;
[]	was patented under U.S. Patent N	No

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;

> PATENT REEL: 016433 FRAME: 0642

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:

Date: March 28,2005	Rafol C Frague
	Inventor's Signature
Print full name of first inventor:	Ralph C. Frangioso, Jr.
Residence:	23 Midland Avenue, Franklin, MA 02038
Citizenship:	United States of America
Mailing Address:	Same as above
STATE/COMMONWEALTH OF Y///COUNTY OF Y//	_, 2005, then personally appeared before me the
On this <u>\langle 8</u> day of \(17 \langle 1/2\langle 2/2\langle \) above-named Ralph C. Frangioso, Jr. know	
identification femployee identification	card; driver's license; [] (other)
	e the person whose name is subscribed to the
deed for the purposes therein contained.	hat he/she executed the same as his/her free act and
• •	Dancy Farristu
	Notary Public
	Print Name: Nancy S Famsta

My Commission expires § 3/07/2008

Date: 03/29/05	7/2///
	Inventor's Signature
Print full name of second inventor:	Thomas J. Connor, Jr.
Residence:	36 Lakeview Drive, Winchendon, MA 01475
Citizenship:	United States of America
Mailing Address:	Same as above
On this 29th day of March	2005, then personally appeared before me the
employee identification card; driver	me through satisfactory evidence of identification 's license; [] (other)
	he person whose name is subscribed to the he/she executed the same as his/her free act and
	Manuel Forester
	Notary Public Print Name: Nancy J. Formster My Commission expires 03/07/2008
	why commission expires <u>03/5-1/300</u> .

Date: Mas do 21 2000	Miles F. Jake
	Inventor's Signature
Print full name of third inventor:	Robert P. Wierzbicki
Residence:	22 Mohave Road, Worcester, MA 01606-2660
Citizenship:	United States of America
Mailing Address:	Same as above
STATE/COMMONWEALTH OF MANAGED COUNTY OF MANAGED	nceste
employee identification card; dri	, 2005, then personally appeared before me the to me through satisfactory evidence of identification ver's license; [] (other) be the person whose name is subscribed to the
	that he/she executed the same as his/her free act and
	Nance Di Farrita
	Notary Public
	Print Name: Nancy J. Lomstel
	My Commission expires <u>63/07/2008</u>

Date: March 28, 2005 Mechae Michael L. Schillinger Print full name of fourth inventor: 12 Diane Avenue, Auburn, MA 01501 Residence: United States of America Citizenship: Same as above Mailing Address: STATE/COMMONWEALTH OF COUNTY OF day of Much, 2005, then personally appeared before me the above-named Michael L. Schillinger known to me through satisfactory evidence of identification [| 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. Print Name: /\

My Commission expires <u>03</u>/<u>07</u>/

3/28/05 Steven R. Cieluch Print full name of fifth inventor: 15 Walbridge Street, Unit #10 Residence: Allston, MA 02134 United States of America Citizenship: Same as above Mailing Address: STATE/COMMONWEALTH OF **COUNTY OF** On this A day of March, 2005, then personally appeared before me the above-named Steven R. Cieluch known to me through satisfactory evidence of identification []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.

Print Name: Na

My Commission expires <u>03</u>/

-7-

Date: 3/29/05 Keith C. Johnson Print full name of sixth inventor: Residence: 1 Colonial Road, Medway, MA 02053 Citizenship: United States of America Mailing Address: Same as above STATE/COMMONWEALTH OF **COUNTY OF** On this May of Market, 2005, then personally appeared before me the above-named Keith C. Johnson known to me through satisfactory evidence of identification. 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.

Print Name: <u>/////</u>

My Commission expires <u>03</u>/<u>07</u>/ <u>2008</u>

-8-

RECORDED: 03/29/2005