Form PTO-1595 (Rev. 07/05) OMB No. 0651-0027 (exp. 6/30/2008)	U.S. DEPARTMENT OF COMMERCE United States Patent and Trademark Office
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PATEN	TS ONLY
To the Director of the U.S. Patent and Trademark Office: Plea	ase record the attached documents or the new address(es) below.
1. Name of conveying party(ies)	2. Name and address of receiving party(ies)
ANDREAS L. BAUER BRIAN R. GRUTTADAURIA	Name: EMC CORPORATION
GREGORY W. LAZAR WALTER T. DOBBERPUHL	Internal Address:
Additional name(s) of conveying party(ies) attached? Yes V	
3. Nature of conveyance/Execution Date(s):	Street Address: 176 SOUTH STREET
Execution Date(s) JUNE 5, 2001	
✓ Assignment	
Security Agreement Change of Name	City: HOPKINTON
Joint Research Agreement	State: MASSACHUSETTS
Government Interest Assignment	
Executive Order 9424, Confirmatory License	Country: U.S.A. Zip: 01748
Other	Additional name(s) & address(es) attached? Yes No
4. Application or patent number(s):	s document is being filed together with a new application.
A. Patent Application No.(s)	B. Patent No.(s)
11/287,106	
Additional numbers a	attached?
5. Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved: ONE
Name:EMC CORPORATION	
Internal Address: R. KEVIN PERKINS, ESQ.;	7. Total fee (37 CFR 1.21(n) & 3.41) \$ 40.00
OFFICE OF GENERAL COUNSEL	☐ Authorized to be charged by credit card ✓ Authorized to be charged to deposit account
	Authorized to be charged to deposit account Enclosed
Street Address: 176 SOUTH STREET	None required (government interest not affecting title)
City: HOPKINTON	8. Payment Information
	a. Credit Card Last 4 Numbers
State: MASSACHUSETTS Zip:01748	Expiration Date
Phone Number: 1-508-293-6985	b. Deposjť Account Number 05-0889
Fax Number: <u>508-293-7189</u>	01/07/2008 MJAMA1 00000111 N50889 1128 196
Email Address: perkins rkevin@emc.com	Authorized User Name JOEL WALL UI FC: 8021 48.00 DF
9. Signature: Mulliall	
Signature	Date
.IOFI WALL	Total number of pages including cover .

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to: Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

Name of Person Signing

sheet, attachments, and documents:

ASSIGNMENT

WHEREAS, We: Andreas L. Bauer of 116 Powder Mill Road, Maynard, MA 01754; Brian R. Gruttadauria of 7 Herson Drive; Sutton, MA 01590; Gregory W. Lazar of 10 Rockdale Hill Circle; Upton, MA 01568; and, Walter T. Dobberpuhl of 33 Tanglewood Drive; Milford, MA 01757 have invented certain new and useful improvements in:

SCALABLE COMMUNICATION WITHIN A DISTRIBUTED SYSTEM USING DYNAMIC COMMUNICATION TREES

which are described and claimed in an Application for United States Letters Patent in respect of which a Declaration and Power of Attorney is executed on even date herewith.

WHEREAS, EMC CORPORATION, a corporation organized and existing under and by virtue of the laws of the Commonwealth of Massachusetts, and having its principal place of business at 171 South Street, Hopkinton, Massachusetts 01748, is desirous of acquiring the entire interest in and to said invention, said Application and the Letters Patent to be obtained therefor.

NOW, THEREFORE, for good and valuable considerations, the receipt and sufficiency whereof are hereby acknowledged, We have sold, assigned, and set over, and by these presents do hereby sell, assign and set over to the said EMC CORPORATION, and said assignee's legal representatives, successors, and assigns, the entire right, title and interest in and to said invention, said Application and the Letters Patent, both foreign and domestic, that may or shall issue thereon including the right to claim in respect of any subsequent corresponding foreign patent applications and patents, the priority date of the said application under any international treaty; and We do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to the above identified assignee in agreement with the terms of this Agreement.

UPON SAID CONSIDERATION, We do hereby covenant and agree with the said assignee that We will not execute any writing or do any act whatsoever conflicting with these presents, and that We will at any time upon request, without further or additional consideration, but at the expense of the said assignee, execute such additional assignments and other writings and such additional acts as said assignee may deem necessary or desirable to perfect the assignee's enjoyment of this grant, and render all necessary assistance in making application for and obtaining original, divisional, reissued, or extended Letters Patent of the United States or of any and all foreign countries on said invention, and in enforcing any rights or choses in action accruing as a result of such applications or patents, by giving testimony in any proceedings or transactions involving such applications or patents, and by executing preliminary statements and other affidavits, it being understood

PATENT REEL: 020336 FRAME: 0054 that the foregoing covenant and agreement shall bind and inure to the benefit of the assigns, heirs, and legal representatives of all parties hereto.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal this day of June 2001
Name: ANDREAS L. BAUER Seal: Alls L Bau
United States of America
Commonwealth of Massachusetts
County of Worcester on this 5 day of June, 2001, before me personally
appeared ANDREAS L. BAUER, to me proved to be the person described in the
foregoing Assignment, who acknowledged that he executed the foregoing Assignment of
his own free will for the purposes therein set forth.
Jul Wall
Notary Public
JOEL WALL
Notary Public
My Commission Expires February 12, 200-4
IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal this 5th day of
United States of America Commonwealth of Massachusetts
County of Worcester 12
On this day of
appeared BRIAN R. GRUTTADAURIA, to me proved to be the person described in the
Foregoing Assignment, who acknowledged that he executed the foregoing Assignment of
nis own free will for the purposes therein set forth.
Notary Public
Notary Public

PATENT REEL: 020336 FRAME: 0055

JOEL WALL
No arv Public
My Commission Expires February 12, 2004

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal this day of つい こうこ
Name: GREGORY W. LAZAR Seal: Drug W. I.
United States of America Commonwealth of Massachusetts County of Worcester On this
Notary Public JOEL WALL Notary Public My Commission Expires February 12, 2004
IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal this day of June 2001 Name WALTER T. DOBBERPUHL Seal: Matter S. J. Mayard
United States of America Commonwealth of Massachusetts County of Worcester On this
his own free will for the purposes therein set forth. Notary Public
JOEL WALL Notary Public My Commission Expires February 12, 200 a

RECORDED: 01/03/2007

PATENT REEL: 020336 FRAME: 0056