

02-03-2003



IEET

RECOF

102350180

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies)

Arod Shatil
Edith L. Epstein
Stephen A. Ludlum

2. Name and address of receiving party(ies)

Name: EMC Corporation

Internal Address: _____

Street Address: 171 South Street

City: Hopkinton State: MA ZIP: 01748

Additional name(s) & address(es) attached? [] Yes [X] No

Additional name(s) of conveying party(ies) attached? [] Yes [X] No

3. Nature of conveyance:

- Assignment [] Merger
- Security Agreement [] Change of Name
- Other _____

Execution Date: October 19, 2000, October 16, 2000
October 16, 2000

4. Application number(s) or patent number(s):

09/692 974

If this document is being filed together with a new application, the execution date of the application is:

October 19, 2000, October 16, 2000, October 16, 2000

A. Patent Application No.(s)

B. Patent No.(s)

Additional numbers attached? [] Yes [x] No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Barry W. Chapin, Esq.

Internal Address: _____

CHAPIN & HUANG, L.L.C.

Street Address: Westborough Office Park

1700 West Park Drive

City: Westborough State: MA ZIP: 01581

6. Total number of applications and patents involved: [1]

7. Total Fee (37 C.F.R. 3.41)..... \$ 40.00

- Enclosed herewith.
- Authorized to charge any deficiencies or credit any overpayment to deposit account
- Authorized to be charged to deposit account

8. Deposit account number:

50-0901

file OK

(Attach duplicate copy of this page if paying by deposit account)

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9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Barry W. Chapin

Name of Person Signing

Barry W. Chapin, Reg. No. 39934

Signature

October 20, 2000

Date

Total number of pages including cover sheet, attachments, and document: [4]

FILE COPY

Docket No.: EMC00-23(00133)
Joint

ASSIGNMENT

WHEREAS, we, Arod Shatil, Edith L. Epstein and Stephen A. Ludlum, have invented a certain improvement in **METHODS AND APPARATUS FOR PROVIDING HOST-CONTROLLED CACHING OF DATA IN A STORAGE SYSTEM** described in an application for Letters Patent of the United States, the specification of which:

- is being executed on even date herewith and is about to be filed in the United States Patent Office;
- was filed on _____ as Application No. _____;
- was patented under U.S. Patent No. _____ on _____.

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 171 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 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;

COPY

PATENT

REEL: 013401 FRAME: 0952

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 the date set forth below.

Inventor: *VIV*
Arod Shatil

State/Commonwealth
of Massachusetts
County of Middlesex

Then personally appeared before me the above-named **Arod Shatil** and acknowledged that he/she executed the foregoing instrument as his/her free act and deed this 19 day of October, 2002.

(SEAL)

Nancy E. Buck Notary Public
NANCY E. BUCK (print name)
My Commission expires 9/4/2003

Inventor: *Edith Epstein*
Edith L. Epstein

State/Commonwealth
of Massachusetts
County of Middlesex

Then personally appeared before me the above-named **Edith L. Epstein** and acknowledged that he/she executed the foregoing instrument as his/her free act and deed this 16 day of October, 2002.

(SEAL)

Rosalie M. Allen Notary Public
ROSALIE M. ALLEN (print name)
My Commission expires 05/12/2006

COPY

PATENT

REEL: 013401 FRAME: 0953

Inventor: Stephen A. Ludlum
Stephen A. Ludlum

State/Commonwealth
of Massachusetts
County of Middlesex

Then personally appeared before me the above-named **Stephen A. Ludlum** and
acknowledged that he/she executed the foregoing instrument as his/her free act and deed this
16 day of October, 2002

(SEAL)

Rosalie M. Allen Notary Public
ROSALIE M. ALLEN (print name)
My Commission expires 02/12/2006

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