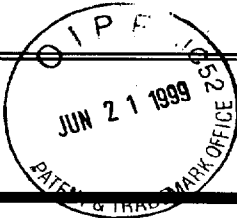


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06-23-1999

FORM PTO-1595
1-31-92



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U.S. DEPARTMENT OF COMMERCE

Patent and Trademark Office

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

1. Name of conveying party(ies):

Virenda Kumar Budhreja, James Jisheng Song,
Hung Minh Dinh, Jose Roberto Santiano Fernandez,
Caroline S. Gan Lazovick

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

2. Name and address of receiving party(ies):

Name: Next Level Communications

Street Address: 6085 State Farm Drive

City: Rohnert Park, California 94928

Additional name(s) & address(es) attached?

 Yes No

3. Nature of conveyance:

 Assignment Merger
 Security Agreement Change of Name
 Other

Execution Date: 12 December 1996, 12 December 1996,
11 December 1996, 11 December 1996, 11 December 1996

MRD 6.21.99

4. Application number(s) or patent number(s): 08/711,027

If this document is being filed together with a new application, the execution date of the application is: 9 September 1996

A. Patent Application No.(s):

B. Patent No.(s):

Additional numbers attached? Yes No

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

Name: Kent R. Richardson
Wilson Sonsini Goodrich & Rosati
650 Page Mill Road
Palo Alto, CA 94304-1050

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

7. Total fee (37 CFR 3.41) \$40.00
 Enclosed
 Authorized to be charged to deposit account

8. Deposit account number: 23-2415
(Attorney Docket No.: 17663-701)

(06/23/1999 JSHABAZZ 00000049 832415 08711027)
01 50.50 40.00 CH

DO NOT USE THIS SPACE

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.

Kent R. Richardson, Reg. No. 39,443
Name of Person Signing

Signature

6/18/99
Date

Total number of pages including cover sheet, attachments and document: [5]

JOINT TO CORPORATE ASSIGNMENT

WHEREAS, the undersigned,

(1) Virenda Kumar Budhraj

(2) James Jisheng Song

(3) Hung Minh Dinh

(4) Jose Roberto Santiano Fernandez

(5) Caroline S. Gan Lazovick

(hereinafter termed "Inventors"), residents of

(1) 1152 Daniel Drive

(2) 7737 Melody Drive

(3) 2237 Sunlit Ann Drive

(4) 495 Laguna Drive

(5) 654 Scotland Court

respectively, Cities of

(1) Petaluma

(2) Rohnert Park

(3) Santa Rosa

(4) Rohnert Park

(5) Santa Rosa

respectively, Counties of

(1) Sonoma County

(2) Sonoma County

(3) Sonoma County

(4) Sonoma County

(5) Sonoma County

respectively, States of

(1) California 94954

(2) California 94928

(3) California 95403

(4) California 94928

(5) California 95409

respectively, have invented certain new and useful improvements in:

METHOD AND APPARATUS FOR ELEMENT MANAGEMENT

and have executed a declaration or oath for an application for a United States patent disclosing and identifying the invention:

On the

(1) 12th day of December, 1996;

(2) 12th day of December, 1996;

(3) 11th day of December, 1996;

(4) 11th day of December, 1996.

(5) 11th day of December, 1996.

respectively;

Or

X Said application having Application Number 08/711,027 and filed on the 9th day of September, 1996.

WHEREAS Next Level Communications (hereinafter termed "Assignee"), a corporation of California, incorporated on June 24, 1994, having a place of business at 6153 State Farm Drive, Rohnert Park, CA 94928, wishes to acquire the entire right, title and interest in and to said application and the invention disclosed therein, and in and to all embodiments of the invention, heretofore conceived, made or discovered jointly or severally by said Inventors (all collectively hereinafter termed "said invention"), and in and to any and all patents, certificates of invention and other forms of protection thereon (hereinafter termed "patents" applied for or granted in the United States and/or other countries.

NOW THEREFORE, for good and valuable consideration acknowledged by each of said Inventors to have been received in full from said Assignee:

1. Said Inventors do hereby sell, assign, transfer and convey to said Assignee, the entire right, title and interest (a) in and to said application and said invention; (b) in and to all rights to apply in any or all countries of the world for patents, certificates of inventions or other governmental grants on said invention, including the right to apply for patents pursuant to the International Convention for the Protection of Industrial Property or pursuant to any other convention, treaty, agreement or understanding; (c) in and to any and all applications filed and any and all patents, certificates of inventions or other governmental grants granted on said invention in the United States or any other country, including each and every application filed and each and every patent granted on any application which is a division, substitution, or continuation of any of said applications; (d) in and to each and every reissue or extension of any of said patents; and (e) in and to each and every patent claim resulting from a reexamination certificate for any and all of said patents.

2. Said Inventors hereby jointly and severally covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest herein conveyed in the United States and other countries. Such cooperation by said Inventors shall include prompt production of pertinent facts and documents, giving of testimony, executing of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for complying with any duty of disclosure; (c) for prosecuting any of said applications; (d) for filing and prosecuting substitute, divisional, continuing or additional applications covering said invention; (e) for filing and prosecuting applications for reissue of any of said patents; (f) for interference or other priority proceedings involving said invention; and (g) for legal proceedings involving said invention and any applications therefor and any patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, reexamination proceedings, compulsory licensing proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Inventors in providing such cooperation shall be paid for by said Assignee.

3. The terms and covenants of this Assignment shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Inventors, their respective heirs, legal representatives and assigns.

4. Said Inventors hereby jointly and severally warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

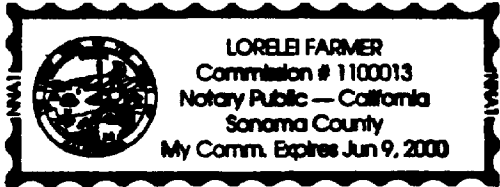
IN WITNESS WHEREOF, the said Inventors have executed and delivered this instrument to said Assignee on the date of acknowledgment before the Notary Public as given below.

(1) Virendra Kumar Budhraj
Virendra Kumar Budhraj

(1) State of California)
County of Sonoma)

On Dec 12, 1996 before me, Lorelei Farmer, Notary Public, personally appeared Virendra Kumar Budhraj, personally known to me (~~or proved to me on the basis of satisfactory evidence~~) to be the person(s) whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(~~ies~~), and that by his/~~her/their~~ signature(~~s~~) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal. Lorelei Farmer
Signature

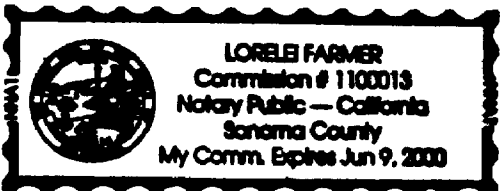


(2) James Jisheng Song
James Jisheng Song

(2) State of California)
County of Sonoma)

On Dec 12, 1996 before me, Lorelei Farmer, Notary Public, personally appeared James Jisheng Song, personally known to me (~~or proved to me on the basis of satisfactory evidence~~) to be the person(s) whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(~~ies~~), and that by his/~~her/their~~ signature(~~s~~) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal. Lorelei Farmer
Signature



(3) Hung Minh Dinh
Hung Minh Dinh

(3) State of California)
County of Sonoma)

On Dec 11, 1996 before me, Lorelei Farmer, Notary Public, personally appeared Hung Minh Dinh, personally known to me (~~or proved to me on the basis of satisfactory evidence~~) to be the person(s) whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(~~ies~~), and that by his/~~her/their~~ signature(~~s~~) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

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Signature



(4) Jose Roberto Santiano Fernandez
Jose Roberto Santiano Fernandez

(4) State of California
County of Sonoma

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Signature

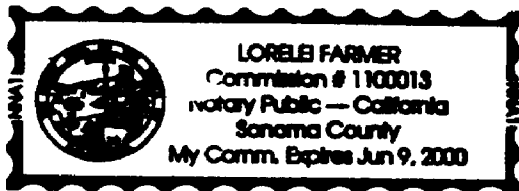


(5) Caroline Stephanie Gan Lazovick
Caroline Stephanie Gan Lazovick

(5) State of California
County of Sonoma

On Dec 11, 1996 before me, Lorelei Farmer Notary Public, personally appeared Caroline Stephanie Gan Lazovick personally known to me (~~or proved to me on the basis of satisfactory evidence~~) to be the person(s) whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(~~ies~~), and that by his/~~her/their~~ signature(~~s~~) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

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- (3) Hung Minh Dinh
- (5) Caroline S. Gan Lazovick

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- (4) Jose Roberto Santiano Fernandez

(hereinafter termed "Inventors"), residents of

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- (3) 2237 Sunlit Ann Drive
- (5) 654 Scotland Court

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respectively, Cities of

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- (3) Santa Rosa
- (5) Santa Rosa

- (2) Rohnert Park
- (4) Rohnert Park

respectively, Counties of

- (1) Sonoma County
- (3) Sonoma County
- (5) Sonoma County

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Or

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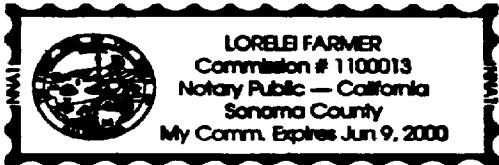
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(3) Hung Minh Dinh
Hung Minh Dinh

(3) State of California)
County of Sonoma)

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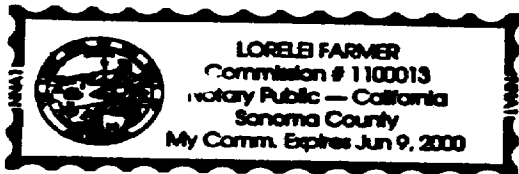
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(4) State of California
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WITNESS my hand and official seal.

Lorelei Farmer
Signature



(5) Caroline Stephanie Gan Lazovick
Caroline Stephanie Gan Lazovick

(5) State of California
County of Sonoma

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Lorelei Farmer
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