PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|---------------------|----------------|
| Ankitkumar N. Patel | 05/21/2012 |
| Philip Nan Ji | 05/18/2012 |
| Jason P. Jue | 05/23/2012 |
| Ting Wang | 05/17/2012 |

RECEIVING PARTY DATA

| Name: | NEC Laboratories America, Inc. |
|-------------------|--------------------------------|
| Street Address: | 4 Independence Way |
| Internal Address: | Suite 200 |
| City: | Princeton |
| State/Country: | NEW JERSEY |
| Postal Code: | 08540 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 13435413 |

CORRESPONDENCE DATA

 Fax Number:
 (609)951-2480

 Phone:
 609-951-2522

 Email:
 jill@nec-labs.com

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US

Mail.

Correspondent Name: NEC LABORATORIES AMERICA, INC.

Address Line 1: 4 INDEPENDENCE WAY

Address Line 2: Suite 200

Address Line 4: PRINCETON, NEW JERSEY 08540

| ATTORNEY DOCKET NUMBER: | 10122 |
|-------------------------|------------------|
| NAME OF SUBMITTER: | Jill Rittenhouse |

Total Attachments: 2

501939504

source=signedneclaassignment#page1.tif source=signedneclaassignment#page2.tif

PATENT

REEL: 028296 FRAME: 0343

ASSIGNMENT

Whereas, we,

- (1) Ankitkumar N. Patel, of 12 Downing Drive, East Brunswick, NJ 08816;
- (2) Philip Nan Ji, of 2 Parker Road, Plainsboro, NJ 08536;
- (3) Jason P. Jue, of 1208 Lakestream Drive, Plano, TX 75075; and
- (4) Ting Wang, of 10 Glacier Drive, West Windsor, NJ 08550

(hereinafter called "Assignor(s)"), have made a certain invention, and executed United States Patent Application Serial No. 13/435,413, filed on March 30, 2012, entitled:

A METHOD FOR TRAFFIC GROOMING, WAVELENGTH ASSIGNMENT AND SPECTRUM ALLOCATION

Whereas,

NEC Laboratories America, Inc.

4 Independence Way, Suite 200 Princeton, New Jersey 08540

(hereinafter called "Assignee"), desires to acquire the entire right, title, and interest in the application and the invention, and to any applications, patents and/or utility model registrations filed or obtained therefor in every Country (hereinafter called the "Designated Countries").

Now therefore, for valuable consideration, receipt of which is hereby acknowledged,

I/we, the above named Assignor(s), hereby sell, assign and transfer to the above named Assignee the entire right, title and interest to file and/or obtain any applications, patents and/or utility model registrations in the Designated Countries as regards the United States application and the invention disclosed therein (including rights of priority based on the United States application), and I/we will execute without further consideration all papers deemed necessary by the Assignee in connection with such applications, patents and/or utility model registrations in the Designated Countries when called upon to do so by the Assignee.

Signed and Sealed:

| INVENTOR 1: DATE on 5 21 20 2 INVENTOR 2: | (Ankitkumar N. Patel) |
|---|-----------------------|
| DATE on _5/18/1 2 | (Philip Nan Ji) |
| DATE on | (Jason P. Jue) |
| INVENTOR 4: DATE on 5/1/1/2 | (Ting Wang) |

Page 1 of 1

PATENT REEL: 028296 FRAME: 0344

ASSIGNMENT

Whereas, we,

- (1) Ankitkumar N. Patel, of 12 Downing Drive, East Brunswick, NJ 08816;
- (2) Philip Nan Ji, of 2 Parker Road, Plainsboro, NJ 08536;
- (3) Jason P. Jue, of 1208 Lakestream Drive, Plano, TX 75075; and
- (4) Ting Wang, of 10 Glacier Drive, West Windsor, NJ 08550

(hereinafter called "Assignor(s)"), have made a certain invention, and executed United States Patent Application Serial No. 13/435,413, filed on March 30, 2012, entitled:

A METHOD FOR TRAFFIC GROOMING, WAVELENGTH ASSIGNMENT AND SPECTRUM ALLOCATION

Whereas,

NEC Laboratories America, Inc.

4 Independence Way, Suite 200 Princeton, New Jersey 08540

(hereinafter called "Assignee"), desires to acquire the entire right, title, and interest in the application and the invention, and to any applications, patents and/or utility model registrations filed or obtained therefor in every Country (hereinafter called the "Designated Countries").

Now therefore, for valuable consideration, receipt of which is hereby acknowledged,

I/we, the above named Assignor(s), hereby sell, assign and transfer to the above named Assignee the entire right, title and interest to file and/or obtain any applications, patents and/or utility model registrations in the Designated Countries as regards the United States application and the invention disclosed therein (including rights of priority based on the United States application), and I/we will execute without further consideration all papers deemed necessary by the Assignee in connection with such applications, patents and/or utility model registrations in the Designated Countries when called upon to do so by the Assignee.

Signed and Sealed:

| (Ankitkumar N. Patel) |
|-----------------------|
| |
| (Philip Nan Ji) |
| 1 1 hs - |
| (Jason P. Jue) |
| |
| (Ting Wang) |
| |

Page 1 of 1