

08-07-2000

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101424236

To the Honorable Director of Patents and

all documents or copy thereof.

1. Name of conveying party(ies):

- (a) Kalman, Robert F.
- (b) Fan, Jason C.
- (c) Barry, Charles F.
- (d) Jogalekar, Prasad P.
- (e) Bannai, Vinay K.

Additional name(s) of conveying party(ies) attached?

Yes No

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

Name: Luminous Networks, Inc.

Street Address: 10460 Bubb Road

City: Cupertino State: California Zip: 95014

Country: U.S.A.

3. Nature of Conveyance:

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

Execution Date: June 30, 2000

Name and address of receiving party(ies):

Name: _____

Street Address: _____

City: _____ State: _____ Zip: _____

Country: _____

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

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

A. Patent Application No.(s) - 09/519,024

Title: Selecting A Routing Direction In A Communications Network Using A Cost Metric

B. Patent No.(s)

Additional numbers attached? Yes No

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

Name: Brian D. Ogonowsky

Internal Address: SKJERVEN, MORRILL, MacPHERSON,

FRANKLIN & FRIEL LLP

Street Address: 25 METRO DRIVE, SUITE 700

City SAN JOSE State CA ZIP 95110

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41): \$40.00

- Authorized to be charged to Deposit Account 19-2386
- Charge Deposit Account 19-2386 for any additional fees required for this conveyance and credit deposit account 19-2386 any amounts overpaid

DO NOT USE THIS SPACE

8. 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.

Brian D. Ogonowsky 31,988
Name of Person Signing

Signature

7/2/00
Date

08/04/2000 DNGUYEN 00000291 192386 09519024

Total number of pages comprising cover sheet: 4

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ASSIGNMENT

For good and valuable consideration, receipt of which is hereby acknowledged, we Robert F. Kalman, Jason C. Fan, Charles F. Barry, Prasad P. Jogalekar, and Vinay K. Bannai hereby sell, assign and transfer to Luminous Networks, Inc., a California corporation, having a place of business at 10460 Bubb Road, Cupertino, CA 95014, its successors and assigns, the entire right, title and interest throughout the world in our invention in

Selecting A Routing Direction In A Communications Network Using A Cost Metric

for which we filed a United States Patent Application on March 3, 2000, and now has Serial No. 09/519,024, and all patent applications and patents of every country for said invention, including divisions, reissues, continuations and extensions thereof, and all rights of priority resulting from the filing of said applications; we authorize the above-named assignee to apply for patents of foreign countries for said invention, and to claim all rights of priority without further authorization from us; we agree to execute all papers useful in connection with said United States and foreign applications, and generally to do everything possible to aid said assignee, their successors, assigns and nominees, at their request and expense, in obtaining and enforcing patents for said invention in all countries; and we request the Commissioner of Patents and Trademarks to issue all patents granted for said invention to the above-named assignee, its successors and assigns.

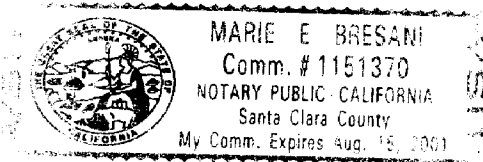
Executed this 30 day of JUNE, 2000.

Robert F. Kalman
Robert F. Kalman

On JUNE 30, 2000 before me, MARIE E BRESANI (Notary) personally appeared Robert F. Kalman personally known to me or proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Marie E Bresani
SIGNATURE OF NOTARY



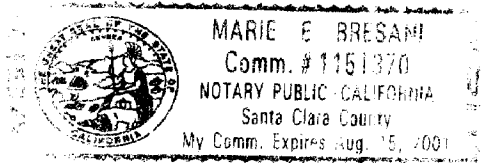
Executed this 30th day of June, 2000.

Jason C. Fan
Jason C. Fan

State of CALIFORNIA
County of SANTA CLARA) ss.

On JUNE 30, 2000 before me, MARIE E. BRESANI
(Notary) personally appeared Jason C. Fan personally known to me or proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.



Marie E. Bresani
SIGNATURE OF NOTARY

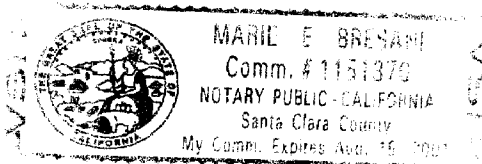
Executed this 30th day of June, 2000.

Charles F. Barry
Charles F. Barry

State of CALIFORNIA
County of SANTA CLARA) ss.

On JUNE 30, 2000 before me, MARIE E. BRESANI
(Notary) personally appeared Charles F. Barry personally known to me or proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.



Marie E. Bresani
SIGNATURE OF NOTARY

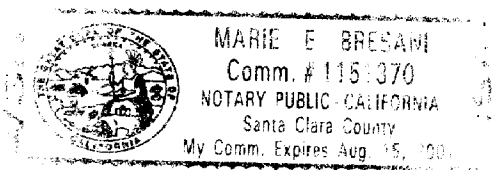
Executed this 30th day of June, 2000.

Jogalekar P.P.
Prasad P. Jogalekar

State of CALIFORNIA)
County of SANTA CLARA) ss.

On JUNE 30, 2000 before me, Marie E. Bresani (Notary) personally appeared Prasad P. Jogalekar personally known to me or proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.



Marie E. Bresani
SIGNATURE OF NOTARY

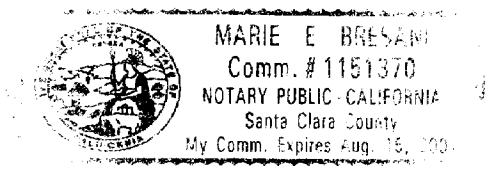
Executed this 30th day of June, 2000.

Vinay K. Bannai
Vinay K. Bannai

State of CALIFORNIA)
County of SANTA CLARA) ss.

On JUNE 30TH, 2000 before me, MARIE E BRESANI (Notary) personally appeared Vinay K. Bannai personally known to me or proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.



Marie E. Bresani
SIGNATURE OF NOTARY