

T U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office



To the Honorable Commissioner of Patents and ... 102088566

Wen Chen
Xin Li
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1201 WINTERSON ROAD

Execution Date: MAY 3, 2002

If this document is being filed together with a new application, the execution date of the application is: **MAY 3, 2002**

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Additional numbers

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Washington, D.C. 20231

Assignments

PATENT

REEL: 012874 FRAME: 0893

ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, the person(s) named below (referred to as "INVENTOR" whether singular or plural) has sold, assigned, and transferred and does hereby sell, assign, and transfer to CIENA a Delaware corporation, having a place of business at 1201 Winterson Road, Linthicum, MD 21090-2205, for itself and its successors, transferees, and assignees, the following:

The entire worldwide right, title, and interest in all inventions and improvements ("SUBJECT MATTER") that are disclosed in the provisional application filed under 35 U.S.C. §111(b) or non-provisional application filed under 35 U.S.C. §111(a) and entitled

CALCULATING PHYSICAL ROUTES IN A COMMUNICATION NETWORK

("APPLICATION") which:

- ☒ is to be filed herewith
☐ was filed on _____, 2002
now bearing U.S. application number _____; and

2. The entire worldwide right, title, and interest in and to:

(a) the APPLICATION; (b) all applications claiming priority from the APPLICATION; (c) all utility, divisional, continuation, substitute, renewal, reissue, and other related applications thereto which have been or may be filed in the United States or elsewhere in the world; (d) all patents (including reissues and re-examinations) which may be granted on the applications set forth in (a), (b), (c) and (d) above; and (e) all right of priority in the APPLICATION, together with all rights to recover damages for infringement of provisional rights.

INVENTOR agrees that ASSIGNEE may apply for and receive patents for SUBJECT MATTER in ASSIGNEE's own name.

INVENTOR agrees to do the following, when requested, and without further consideration, in order to carry out the intent of this Assignment: (1) execute all oaths, assignments, powers of attorney, applications, and other papers necessary or desirable to fully secure to ASSIGNEE the rights, titles and interests herein conveyed; (2) communicate to ASSIGNEE all known facts relating to the SUBJECT MATTER; and (3) generally do all lawful acts that ASSIGNEE shall consider desirable for securing, maintaining, and enforcing worldwide patent protection relating to the SUBJECT MATTER and for vesting in ASSIGNEE the rights, titles, and interests herein conveyed. INVENTOR further agrees to provide any successor, assign, or legal representative of ASSIGNEE with the benefits and assistance provided to ASSIGNEE hereunder.

INVENTOR represents that INVENTOR has the rights, titles, and interests to convey as set forth herein, and covenants with ASSIGNEE that the INVENTOR has not made and will not hereafter make any assignment, grant, mortgage, license, or other agreement affecting the rights, titles, and interests herein conveyed.

INVENTOR grants the attorney of record the power to insert on this Assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

This Assignment may be executed in one or more counterparts, each of which shall be deemed an original and all of which may be taken together as one and the same Assignment.

Title of Document: ASSIGNMENT

Title: **Calculating physical routes in a communication network**

Filed:

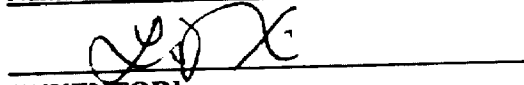
Serial No.:

Name and Signature: Wen Chen
[INVENTOR]Date of
Signature5/3 2002Date Declaration
Executed By This Person5/3 2002State of _____ } S.S.
County of _____ }On _____ before me, _____ personally
[DATE] [NOTARY PUBLIC]appeared _____ personally known to me or proved to me on the basis of satisfactory evidence to
[INVENTOR]

be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

Notary Seal

Notary

Name and Signature: Xin Li
[INVENTOR]Date of
Signature5/3 / 2002Date Declaration
Executed By This Person5/3 / 2002State of _____ } S.S.
County of _____ }On _____ before me, _____ personally
[DATE] [NOTARY PUBLIC]appeared _____ personally known to me or proved to me on the basis of satisfactory evidence to
[INVENTOR]

be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

Notary Seal

Notary

Title of Document: ASSIGNMENT

Title: Calculating physical routes in a communication network

Filed:

Serial No.:

Date of
Name and Signature: Makarand Bhatambharekar

Date Declaration

Signature

Executed By This Person

5/3/20025/3, 2002

[INVENTOR]

State of _____) S.S.

County of _____)

On _____ before me, _____ personally
[DATE] [NOTARY PUBLIC]appeared _____ personally known to me or proved to me on the basis of satisfactory evidence to
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