

**ASSIGNMENT RECORDATION COVER SHEET
-PATENTS ONLY-**

To: Honorable Commissioner of Patents and Trademarks:

Please record the attached original document(s) or copy thereof.

1. Name of conveying party(ies)

- a) Behrooz REZVANI
- b) Sam HEIDARI
- c) Dale SMITH

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

- a) Name: Ikanos Communication, INC
- Address: 47709 Fremont Boulevard
Fremont, CA 94538

3. Nature of conveyance

- | | |
|--|--|
| <input checked="" type="checkbox"/> Assignment | <input type="checkbox"/> Merger |
| <input type="checkbox"/> Security Agreement | <input type="checkbox"/> Change of Name |
| <input type="checkbox"/> Other _____ | <input type="checkbox"/> License Agreement |

Execution Date:

4. Application Number(s) or Patent Number(s): 09/779,789 filed Feb 7, 2001

The title of the (new) application is: **Method and Apparatus for Channel Estimation for X-DSL Communications**

5. Please send all correspondence concerning this (these) documents to:

CARY & KELLY, LLP
1875 Charleston Road
Mountain View, CA, 94043
Telephone (650) 316-4011

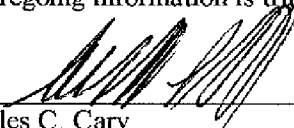
6. Total number of applications and patents involved: 1

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

- ☒ Enclosed
- ☒ Any additional fees are authorized to be charged to Deposit Account No. 50-1338
(Order No. **VELCP008X1C**)

8. 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.

Date: June 18, 2001



Charles C. Cary
Registration No. 36,764

ASSIGNMENT OF PATENT APPLICATION

Whereas I/we the undersigned inventor(s) have invented certain new and useful improvements as set forth in the patent application entitled

Method and Apparatus for Channel Estimation for X-DSL Communications

(Atty. Docket No.: **VELCP008X1C**) for which I (we) have executed an application for a United States Letters Patent filed on February 7, 2001 and allocated USN 09/779,789.

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I/We the undersigned inventor(s) hereby:

- 1) Sell(s), assign(s) and transfer(s) to **IKANOS COMMUNICATIONS, INC.**, a California corporation having a place of business at **47709 Fremont Boulevard, Fremont CA. 94538**, (hereinafter referred to as "ASSIGNEE"), the entire right title and interest in any and all improvements and inventions disclosed in, application(s) based upon, and Patent(s) (including foreign patents) granted upon the information which is disclosed in the above referenced application.
- 2) Authorize and request the Commissioner of Patents to issue any and all Letters Patents resulting from said application or any division(s), continuation(s), substitutes(s) or reissue(s) thereof to the ASSIGNEE.
- 3) Agree to execute all papers and documents and, entirely at the ASSIGNEE's expense, perform any acts which are reasonably necessary in connection with the prosecution of said application, as well as any derivative and applications thereof, foreign applications based thereon, and/or the enforcement of patents resulting from such applications.
- 4) Agree that the terms, covenants and conditions of this assignment shall inure to the benefit of the Assignee, its successors, assigns and other legal representative, and shall be binding upon the inventor(s), as well as the inventor's heirs, legal representatives and assigns.
- 5) Warrant and represent that I/we have not entered, and will not enter into any assignment, contract, or understanding that conflicts with this assignment.

Signed on the date(s) indicated beside my (our) signature(s).

1. **Inventor Signature:** _____

Behrooz Rezvani
Behrooz Rezvani

Date: 4/11/01

State of California)

County of Alameda)

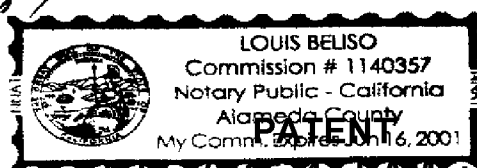
ss.

On this 11 day of April, in the year 2001, before me, *Louis Beliso*, personally appeared **Behrooz Rezvani**, 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/she executed the same in his/her authorized capacity(ies), and that by his/her 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.

Atty Docket No.: **VELCP008X1**
(Updated 01/29/01)

Louis Beliso



REEL: 011674 FRAME: 0412

Notary Signature _____

(SEAL)

2. Inventor Signature: Sam HeidariDate: 4/11/2001

State of California)

County of Alameda) SS.

On this 11 day of April, in the year 2001, before me, Louis Beliso, personally appeared **Sam Heidari**, 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/she executed the same in his/her authorized capacity(ies), and that by his/her 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.

Notary Signature Louis Beliso

(SEAL)

1. Inventor Signature: Dale L. SmithDate: 4/11/01

State of California)

County of Alameda) SS.

On this 11 day of April, in the year 2001, before me, Louis Beliso, personally appeared **Dale Smith**, 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/she executed the same in his/her authorized capacity(ies), and that by his/her 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.

Notary Signature Louis Beliso

(SEAL)

