ASSIGNMENT RECORDATION COVER SHEET -PATENTS ONLY-

10:	Honorable	e Commissioner of Patents and Trademarks:			
	Please	record the attached original document(s) or copy thereof.			
1.	Name a) b) c)	of conveying party(ies) Behrooz REZVANI Sam HEIDARI Dale SMITH			
2.	Name a)	and address of receiving party(ies): Name: Ikanos Communication, INC Address: 47709 Fremont Boulevard Fremont, CA 94538			
3.		of conveyance Assignment			
l .	Applie	ation Number(s) or Patent Number(s): 09/779,789 filed Feb 7, 2001			
		le of the (new) application is: Method and Apparatus for Channel Estimation for X-Communications			
5.	Please	Please send all correspondence concerning this (these) documents to:			
		CARY & KELLY , LLP 1875 Charleston Road Mountain View, CA, 94043 Telephone (650) 316-4011			
5.	Total r	Total number of applications and patents involved: 1			
7. Total fee (3)		ee (37 CFR 3.41): \$40.00			
		Enclosed Any additional fees are authorized to be charged to Deposit Account No. 50-1338 (Order No. VELCP008X1C)			
s. opy		best of my knowledge and belief, the foregoing information is true and correct and any attached opy of the original document.			
Date	: June 18	Charles C. Cary Registration No. 36,764			

Attorney Docket No. VELCP008X1

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℡₱₳ŦENT **REEL: 011674 FRAME: 0411**

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 USSN 09/779,789.

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

- Sell(s), assign(s) and transfer(s) to **IKANOS COMMUNICATIONS, INC**, a California corporation having a place of business at 47709 Fremont Boulevard, Fremont 1) 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.
- 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.
- Agree to execute all papers and documents and, entirely at the ASSIGNEE's expense, 3) 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.
- 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.
- Warrant and represent that I/we have not entered, and will not enter into any 5) assignment, contract, or understanding that conflicts with this assignment.

Signed on the date(s) indicated b	eside my (our) sign	nature(s).	
l. Inventor Signature: Behrooz Rezvar	<u></u>	Date:	4/11/01
State of California)) ss.		
County of Alamedon) .		
On this day of person me (or proved to me on the basis of subscribed to the within instrument, and his/her authorized capacity(ies), and the entity upon behalf of which the person WITNESS my hand and official Atty Docket No.: VELCP008X1	d acknowledged to at by his/her signal son acted, executed	me that he/she e ture on the instru	executed the same in ment the person, or
		Cool	LOUIS BELISO mmission # 1140357

Notary Public - Calif**ornia**

Notary Signature	(OT 43.)	
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2. Inventor Signature:	Date: 4/11/200	1)
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Atty Docket No.: VELCP008X1 (Updated 01/29/01)

RECORDED: 06/18/2001

PATENT **REEL: 011674 FRAME: 0413**