MU ASSIGNMENT	11-12-1999	SHEET	Patents Only
To the Honorable Commissioner of Patents and	101199065	Attorney	October 29, 1999 Dkt: RAL9-99-0103
Please record the attached original documents o	or copy thereof.		
1. Name of conveying party(ies):	2. Name and address of	of receiving party	(ies):
Gordon Taylor Davis Ajay Dholakia Dongming Hwang Malcolm Scott Ware Hua Ye	International Busine Old Orchard Road Armonk, New York	-	oration LT 2003 N.S. U 2003
Additional name(s) of conveying party(ies) attached? Yes	X No Additional name(s) & addre	ess(es) attached?	Yes X No
3. Nature of conveyance:			<u> </u>
X Assignment Merger Security Agreement Change of Name Other			
Execution Date: October 27, 1999	tent No. 09/43021	1 <u>72 (</u> 8-11)/2001 -	
If this document is being filed together with a new is:October 27, 1999 Additional numbers attached?Yes _X_ No 5. Name and address of party to whom corresponde concerning document should be mailed: John D. Flynn IBM Corp., IP Law Department 972/Building 656 Post Office Box 12195			ents involved: <u>1</u>
Research Triangle Park, NC 27709 /10/1999 JSHABAZZ 00000024\090464 09430217	7. Total fee (37 CFR 2 Enclosed _X_ Authorized to b	_	40.00 psit account
FC: 581 40.00 CH	8. Deposit account nur (Attach duplicate copy of this pag	L	()
Ι	DO NOT USE THIS SPACE	<u> </u>	
9. Statement and signature To the best of my knowledge and belief, the forego of the original document. Mitchell S. Bigel, Reg. #29,614	ging information is true and correct and connected Mych ature	d any attached co /6/19/99 Date	py is a true copy

PATENT REEL: 010368 FRAME: 0791

ASSIGNMENT

THIS ASSIGNMENT, made by us, **Gordon Taylor Davis**, a citizen of the United States of America, residing at 97603 Franklin Ridge, Chapel Hill, North Carolina; **Ajay Dholakia**, a citizen of India, residing at Obstgartenstrasse 16, Gattikon CH 8136, Switzerland; **Dongming Hwang**, a citizen of Taiwan, residing at 210 Hunters Crossing, Cary, North Carolina; **Malcolm Scott Ware**, a citizen of the United States of America; residing at 4605 Gamelyn Walk, Raleigh, North Carolina; and **Hua Ye**, a citizen of the Republic of China, residing at 3912 Springstop Lane, Durham, North Carolina,

WITNESSETH: That,

WHEREAS, we are the inventors of certain new and useful improvements in SYSTEMS, METHODS AND COMPUTER PROGRAM PRODUCTS FOR IDENTIFYING DIGITAL IMPAIRMENTS IN MODEMS BASED ON CLUSTERS AND/OR SKIPS IN PULSE CODE MODULATION SIGNAL LEVELS for which an application for United States Letters Patent has been executed by us concurrently herewith, and

WHEREAS, International Business Machines Corporation (hereinafter referred to as "IBM"), a New York corporation having a principal place of business at Armonk, New York 10504, hereinafter referred to as assignee, is desirous of acquiring the entire right, title, and interest in and to said invention as described in said application, and in and to any and all Letters Patent which shall be granted therefor in the United States of America and all foreign countries;

NOW, THEREFORE, To Whom It May Concern, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we have sold and by these presents do hereby sell, assign, transfer, and convey unto the said assignee, its successors and assigns, the entire right, title, and interest in and to the said invention and application, and in and to any and all continuations, continuations-in-part, or divisions thereof, and in and to any and all Letters Patent of the United States of America and all foreign countries or reissues thereof which may be granted therefor or thereon, for the full end of the term for which said Letters Patent may be granted, together with the right to claim the priority of said application in all foreign countries in accordance with the International Convention, the same to be held and enjoyed by said assignee, its successors and assigns, as

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fully and entirely as the same would have been held and enjoyed by me if this assignment and sale had not been made.

We hereby request that said Letters Patent be issued in accordance with this assignment.

We further covenant and agree that, at the time of the execution and delivery of these presents, we possess full title to the invention and application above-mentioned, and that we have the unencumbered right and authority to make this assignment.

We further covenant and agree to bind our heirs, legal representatives, and assigns promptly to communicate to said assignee or its representatives any facts known to us relating to said invention, to testify in any interference or legal proceedings involving said invention, to execute any additional papers which may be requested to confirm the right of the assignee, its representatives, successors, or assigns to secure patent or similar protection for the said invention in all countries and to vest in the assignee complete title to the said invention and Letters Patent, without further compensation, but at the expense of said assignee, its successors, assigns, and other legal representatives.

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 27 day of <u>October</u>, 1999.

Ion Taylor Davis (SEAL)

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 27^{th} day of October, 1999.

Sholakin (SEAL)

Ajay Dholakia

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this $\frac{2}{2}$ day of $\frac{Colaber}{2}$, 1999.

Dongming Hwang

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 27/3day of October, 1999.

Malcolm Scott Ware (SEAL)

	IN WITNESS	WHEREOF,	I have hereunto set my hand and seal on this _	27 16
day of	<u></u> .	, 1999.		

Hua Ye (SEAL)

RAL9-99-0103

PATENT REEL: 010368 FRAME: 0797

RECORDED: 10/29/1999