Form PTO-1595 RECORE 10-1	2 - 2004 U.S. DEPARTMENT OF COMMERCE U.S. Patent and Trademark Office				
(Rev. 10/02) OMB No. 0651-0027 (exp. 6/30/2005) U.S. Patent and Trademark Office					
	856781				
To the Honorable Commissioner of Patents	rease Record the attached original documents or copy thereof.				
Name of conveying party(ies): Shougo Yagi Tadayuki Imai Michio Ono Hiroki Yamazaki Haruki Kozawaguchi Additional name of conveying party(ies) attached? Yes No	2. Name and address of receiving party(ies) Name: Nippon Telegraph and Telephone Corporation Internal Address:				
Nature of conveyance:	Street Address 10.2 Nichi Shirturu 2 chomo				
☐ Assignment ☐ Merger	Street Address: 19-2, Nishi-Shirijuku 3-chome				
	Shinjuku-ku, Tokyo Japan				
☐ Security Agreement ☐ Change of Name					
Other	Additional Name(s) & address(es) attached? ⊠ Yes ☐ No				
Execution Date: April 12, 1999- ALL	Additional Name(s) & address(es) attached? Tes No				
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: Herewith A. Patent Application No.(s) B. Patent No.(s)					
Additional number	sattached? ☐ Yes ☒ No				
Name and address of party to whom correspondence concerning this document should be mailed:	6. Total number of applications and patents involved: 1				
Name: Robert E. Krebs	7. Total fee (37 CFR 3.41) \$ 40.				
Internal Address: THELEN REID & PRIEST LLP	⊠ Enclosed				
P.O. BOX 640640	☐ Authorized to be charged to deposit account				
Street Address:	8. Deposit account number:				
City: SAN JOSE State: CA Zip: 95164-0640	(Attach duplicate copy of this page if paying by deposit account)				
DO NOT USE THIS SPACE					
9. 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. Masako Ando, Lim. Rec. 37 CFR §10.9(b) Name of Person Signing Signature Signature Date					
Total number of pages including cover sheet, attachments, and documents: 3					

Mail documents to be recorded with required cover sheet information to:
Commissioner of Patents & Trademarks, Mail Stop Assignments, P.O. Box 1450, Alexandria, VA 22313 EV 263 600 409 US

10/08/2004 ECOOPER 00000163 10956467

01 FC:8021

REEL: 015865 FRAME: 0303

PATENT

Docket No.: 034620-000124

ASSIGNMENT

(JOINT)

THIS ASSIGNMENT, by	(1) Shougo Yagi; (2) Tadayuki Imai; (3) Michio Ono; (4)Hiroki Yamazaki; and	
(5) Haruki Kozawaguchi 🗸	, residing at c/o NIPPON TELEGRAPH AND TELEPHONE	COF
DRATION, 20-2, Nishi-Shinjuku 3-chom		
respectively, witnesseth: Shinjuku	ı-ku, Tokyo, Japan	
WHEREAS: the Assignors	have invented certain new and useful improvements in	
MULTI-LAYERED HOLOGRAPHIC READ	O-ONLY MEMORY AND DATA RETRIEVAL METHOD	,

WHEREAS, NIPPON TELEGRAPH AND TELEPHONE CORPORATION, a corporation duly organized under and pursuant to the laws of Japan, and having its principal place of business at 19-2, Nishi-Shinjuku 3-chome, Shinjuku-ku, Tokyo, Japa hereinafter referred to as "the Assignee"), is desirous of acquiring the entire right, title, and interest in and to said inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications, including provisional applications for Letters Patent of the United States or other countries claiming priority to said application, and in and to any Letters Patent or Patents, United States or foreign, to be obtained therefor and thereon.

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and sufficient consideration, the receipt of which is hereby acknowledged, the Assignors have sold, assigned, transferred, and set over, and by these presents do sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns the entire right, title, and interest in and to the above-mentioned inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications for Letters Patent of the United States or other countries claiming priority to said application, and any and all Letters Patent or Patents of the United States of America and all foreign countries that may be granted therefor and thereon, and in and to any and all applications claiming priority to said applications, divisions, continuations, and continuations-in-part of said applications, and reissues and extensions of said Letters Patent or Patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by the Assignee, for its own use and behalf and the use and behalf of its successors, legal representatives, and assigns, to the full end of the term or terms for which Letters Patent or Patents may be granted as fully and entirely as the same would have been held and enjoyed by the Assignors had this sale and assignment not been made;

AND for the same consideration, the Assignors hereby covenant and agree to and with the Assignee, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, the Assignors are the sole and lawful owners of the entire right, title, and interest in and to the inventions set forth in said applications and said applications, including provisional applications, above-mentioned, and that the same are unencumbered, and that the Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth;

Page 1 of 2

(10/97)

Docket No.: 034620-000124

AND for the same consideration, the Assignors hereby covenant and agree to and with the Assignee, its successors, legal representatives, and assigns that the Assignors will, whenever counsel of the Assignee, or the counsel of its successors, legal representatives, and assigns, shall advise that any proceeding in connection with said inventions or said applications for Letters Patent or Patents, or any proceeding in connection with Letters Patent or Patents for said inventions in any country, including interference proceedings, is lawful and desirable, or that any application claiming priority to said application, division, continuation, or continuation-in-part of any applications for Letters Patent or Patents, or any reissue or extension of any Letters Patent or Patents to be obtained thereon, is lawful and desirable, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement, and defense of Letters Patent or Patents for said inventions, without charge to the Assignee, its successors, legal representatives, and assigns, but at the cost and expense of the Assignee, its successors, legal representatives, and assigns;

AND the Assignors hereby request the Commissioner of Patents to issue any and all said Letters Patent of the United States to the Assignee as the Assignee of said inventions, the Letters Patent to be issued for the sole use and behalf of the Assignee, its successors, legal representatives, and assigns.

Date .	April	12,	1999	Signature of Assignor	Shougo Yagi
Date _	April	12,	1999	Signature of Assignor	Smar
Date _	April	12,	1999	Signature of Assignor	Tadayuki Imai Michio Ono
Date_	April	12,	1999	Signature of Assignor	Michio Ono Hiroki Yumazaki
Date _	April	12,	1999	Signature of Assignor	Hiroki Yamazaki Haruki Kozauraenchi
		-		Signature of Assignor	Haruki Kozawaguchi
				Signature of Assignor	
Pate _				_ Signature of Assignor	

Page 2 of 2

(10/97)