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DEPARTMENT OF COMMERCE

Form PTO-1595 RECO (Rev. 10/02)		DEPARTMENT OF COMMERCE  J.S. Patent and Trademark Office
OMB No. 0651-0027 (exp. 6/30/2005)		<u> </u>
To the Honorable Commission of Patents and Lieu	102828091	documents or copy thereof.
The state of the s	8.270 4 Name: HITAC Internal	ress of receiving party(ies) CHI, LTD. anda Surugadai 4-chome, Chiyoda-ku
3. Nature of conveyance:		
	Street Address	:
☐ Other .	City: Tokyo,	JAPAN State: _Zip:
Execution Date: April 14, 2004 & August 27, 2004.	Additional name	e(s) & address(es) attached? ☐ Yes ☒ No
<ol> <li>Application number(s) or patent number(s):</li> <li>If this document is being filed together with a new appl</li> <li>A. Patent Application No.(s)</li> </ol>	lication, the execution date of the B. Patent Registr	
10/823,619, April 14, 2004		
Additional ne	umber(s) attached 🏻 Yes 🔯 No	)
<ol><li>Name and address of party to whom correspondence concerning document should be mailed:</li></ol>	6. Total number of	applications and patents involved 1
Name: ANTONELLI, TERRY, STOUT & KRAUS, LLF	7. Total fee (37 CF	FR 3.41) <b>\$40.00</b>
Internal Address: 1300 North 17 <sup>th</sup> Street – Suite 1		to be charged to deposit account
City: Arlington State: VA Zip: 22209	8. Deposit accoun	t number:
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CARL I. BRUNDIDGE, Reg# 29,621		08/27/2004
Name of Person Signing	Signature	Date
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Commissioner	of Patent & Trademarks, Box Assign	nments

08/30/2004 EAREGAY1 00000119 10823619

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PATENT REEL: 015738 FRAME: 0247

## **ASSIGNMENT**

ATTY. DOCKET NO.: 274.43199X00

WHEREAS the below named inventor (if only one inventor is named below) or inventors (if plural inventors are named below) hereinafter referred to as the ASSIGNOR invented a certain improvement relating to:

## METHOD AND APPARATUS FOR AVOIDING JOURNAL OVERFLOW ON BACKUP AND RECOVERY SYSTEM USING STORAGE BASED JOURNALING

For which an application for Letters Patent to be filed in the United States Patent and Trademark Office was executed on even date.

and WHEREAS

HITACHI, LTD 6, Kanda Surugadai 4-chome, Chiyoda-ku Tokyo, JAPAN 101-8010

hereinafter referred to as the ASSIGNEE, is desirous of acquiring the entire right, title, and interest in and to said invention and application, including any and all divisions and continuations thereof, and any and all Letters Patent which may be granted thereon, including any and all renewals, reissues, reexaminations and extensions thereof.

NOW, WITNESSETH that for good and valuable consideration, the receipt whereof is hereby acknowledged, ASSIGNOR hereby assigns, sells, and transfers to ASSIGNEE, its assigns and legal representatives, the entire and exclusive right, title and interest in and to said invention and application, including any and all divisions and continuations thereof, and any and all Letters Patent which may be granted therefore, including any and all renewals, reissues, reexaminations and extensions thereof, and in and to any and all priority and/or convention rights or benefits accruing or to accrue with respect to the filling or securing of patents in the United States and/or any countries foreign thereto, SAID ASSIGNEE, its assigns and legal representatives to have, hold, exercise, and enjoy said invention and application, including any and all divisions and continuations thereof, and any and all Letters Patent which may be granted therefore, including any and all renewals, reissues, reexaminations and extensions thereof, with all the rights, powers, privileges and advantages in anywise arising from or appertaining thereto, for and during the term or terms of any and all such Letters Patent when granted, including any and all renewals, reissues, reexaminations thereof, for the use and benefit of ASSIGNEE and its assigns and legal representatives, in as ample and beneficial a manner to all intents and purposes as the ASSIGNOR might or could have held and enjoyed the same, if the assignment had not been made.

AND ASSIGNOR hereby agrees to execute all papers that may be necessary to file applications in the United States and foreign countries for said invention and to assign the same to said ASSIGNEE, its assigns and legal representatives and to execute any other papers that may be needed in connection with filing said applications and securing Letters Patents thereon.

AND ASSIGNOR authorizes and requests the Commissioner of Patents and Trademarks to issue a Letters Patent on said application, and on any and all divisions and continuations thereof, to ASSIGNEE, its assigns and legal representatives, in accordance herewith.

The undersigned hereby grant(s) the law firm of Antonelli, Terry, Stout, Kraus, LLP the power to insert on this assignment any further identification which 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.

IN TESTIMONY WHEREOF this assignment is executed by ASSIGNOR.

201	Takashi Amano	INVENTOR-S SIGNATURE	4/14/04
202	FULL NAME OF SECOND JOINT INVENTOR Kenji Yamagami	INVENTOR-S SIGNATURE	DATE
203	FULL NAME OF THIRD JOINT INVENTOR	inventor=s signature	DATE
204	FULL NAME OF FOURTH JOINT INVENTOR	inventor=s signature	DATE
205	FULL NAME OF FIFTH JOINT INVENTOR	inventor=s signature	DATE
206	FULL NAME OF SIXTH JOINT INVENTOR	INVENTOR-S SIGNATURE	DATE
207	FULL NAME OF TWELFTH JOINT INVENTOR	INVENTOR-S SIGNATURE	DATE

PATENT REEL: 015738 FRAME: 0248

## ASSIGNMENT

WHEREAS the below named inventor (if only one inventor is named below) or inventors (if plural inventors are named below) hereinafter referred to as the ASSIGNOR invented a certain improvement relating to:

## METHOD AND APPARATUS FOR AVOIDING JOURNAL OVERFLOW ON BACKUP AND RECOVERY SYSTEM USING STORAGE BASED JOURNALING

For which an application for Letters Patent to be filed in the United States Patent and Trademark Office was executed on even date.

and WHEREAS

HITACHI, LTD 6, Kanda Surugadai 4-chome, Chiyoda-ku Tokyo, JAPAN 101-8010

hereinafter referred to as the ASSIGNEE, is desirous of acquiring the entire right, title, and interest in and to said invention and application, including any and all divisions and continuations thereof, and any and all Letters Patent which may be granted thereon, including any and all renewals, reissues, reexaminations and extensions thereof.

NOW, WITNESSETH that for good and valuable consideration, the receipt whereof is hereby acknowledged, ASSIGNOR hereby assigns, sells, and transfers to ASSIGNEE, its assigns and legal representatives, the entire and exclusive right, title and interest in and to said invention and application, including any and all divisions and continuations thereof, and any and all Letters Patent which may be granted therefore, including any and all renewals, reissues, reexaminations and extensions thereof, and in and to any and all priority and/or convention rights or benefits accruing or to accrue with respect to the filling or securing of patents in the United States and/or any countries foreign thereto, SAID ASSIGNEE, its assigns and legal representatives to have, hold, exercise, and enjoy said invention and application, including any and all divisions and continuations thereof, and any and all Letters Patent which may be granted therefore, including any and all renewals, reissues, reexaminations and extensions thereof, with all the rights, powers, privileges and advantages in anywise arising from or appertaining thereto, for and during the term or terms of any and all such Letters Patent when granted, including any and all renewals, reissues, reexaminations and extensions thereof, for the use and benefit of ASSIGNEE and its assigns and legal representatives, in as ample and beneficial a manner to all intents and purposes as the ASSIGNOR might or could have held and enjoyed the same, if the assignment had not been made.

AND ASSIGNOR hereby agrees to execute all papers that may be necessary to file applications in the United States and foreign countries for said invention and to assign the same to said ASSIGNEE, its assigns and legal representatives and to execute any other papers that may be needed in connection with filing said applications and securing Letters Patents thereon.

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IN TESTIMONY WHEREOF this assignment is executed by ASSIGNOR.

	INVENTOR-S SIGNATURE	DATE
Takashi Amano		
FULL NAME OF SECOND JOINT INVENTOR	INVENTOR-S SIGNATURE	DATE
Kenji Yamagami	Keen Jasey	8/27/04
FULL NAME OF THIRD JOINT INVENTOR	Aventor-s signature	DATE
FULL NAME OF FOURTH JOINT INVENTOR	INVENTOR-S SIGNATURE	DATE
FULL NAME OF FIFTH JOINT INVENTOR	inventor-s signature	DATE
FULL NAME OF SIXTH JOINT INVENTOR	inventor-s signature	DATE
full name of twelfth joint inventor	inventor-s signature	DATE
	FULL NAME OF SECOND JOINT INVENTOR  Kenji Yamagami  FULL NAME OF THIRD JOINT INVENTOR  FULL NAME OF FOURTH JOINT INVENTOR  FULL NAME OF FIFTH JOINT INVENTOR  FULL NAME OF SIXTH JOINT INVENTOR	FULL NAME OF SECOND JOINT INVENTOR  Kenji Yamagami  FULL NAME OF THIRD JOINT INVENTOR  FULL NAME OF FOURTH JOINT INVENTOR  FULL NAME OF FIFTH JOINT INVENTOR  FULL NAME OF SIXTH JOINT INVENTOR  FULL NAME OF SIXTH JOINT INVENTOR  INVENTOR-S SIGNATURE  FULL NAME OF SIXTH JOINT INVENTOR  INVENTOR-S SIGNATURE

PATENT REEL: 015738 FRAME: 0249

RECORDED: 08/27/2004