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Assignment Merger City: Armonk Security Agreement Change of Name Government Interest Assignment Executive Order 9424, Confirmatory License Other Additional name(s) & address(es) anached? Yes Vina A Application or patent number(s): A Patent Application No.(s) 11/056,721 Additional numbers anached? Yes No Additional number of applications and patents No. 8. Total number of applications and patents	Form PTO-1595 (Rev. 09/04) DIAB No. 0651-0027 (exp. 6/30/2005)	U.S. DEPARTMENT OF COMMERCE LOSS STATES PARETT AND TRACEMENT Office					
To the Director of the U.S. Parent and Trademon. Office Piesse record the attached socuments or the new address(es) below. 1. Name of conveying party(ies)/Execution Date(s): Goy L. Subre William J. Starke Deex K. Williams Prints G. Wildows Execution Date(s): Address: Carrier William J. Starke Deex K. Williams Execution Date(s): Address: Carrier Marger Address: City: Armerix Street Address: New Orenard Road Street Address: New Orenard Road City: Armerix Street Address: Other Change of Name Government Interest Assignment Executive Order 9424, Confirmatory License Other Change of Name Additional numbers attached? Yes No Additional numbers attached? Yes No Additional numbers attached? Yes No S. Name and address to whom correspondence concerning document should be mailed: Name Winners Serves & Mance P. C. Internal Address: Address P.O. Box 50784 City: Dates Street Address P.O. Box 50784 City: Armerica Street Address P.O.							
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PATENT

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ASSIGNMENT

and State of Texas,

Whereas, we,

(1) Guy L. Guthrie, of Austin, County of Travis, and State of Texas,

County of Williamson,

(2) William J. Starke, of Round Rock,

(3) Derek E. Williams, of Austin, County of Williamson, and State of Texas,

(4) Phillip G. Williams, of Leander, County of Williamson, and State of Texas,

have invented certain improvements in

IMPROVING THE BANDWIDTH OF A CACHE DIRECTORY BY SLICING THE CACHE
DIRECTORY INTO TWO SMALLER CACHE DIRECTORIES AND REPLICATING
SNOOPING LOGIC FOR EACH SLICED CACHE DIRECTORY

anđ	executed a United States	patent application	therefor on (date	<u>s Inyentors sig</u>	ned Declaration)
(1)	executed a United States Feb 1019 2005	(2)	, (3)	db. 10 2	2005 and
		, ,	•		
(4).	Feb 18th 2005.				

Whereas, INTERNATIONAL BUSINESS MACHINES CORPORATION, a corporation of New York, having a place of business at Armonk, New York 10504, (hereinafter called IBM), desires to acquire the entire right, title and interest in the said application and invention, and to any United States and foreign patents to be obtained therefor;

Now, therefore, for a valuable consideration, receipt whereof is hereby acknowledged, we, the above named, hereby sell, assign, and transfer to IBM, its successors and assigns, the entire right, title and interest in the said application and invention therein disclosed for the United States and foreign countries, and all rights of priority resulting from the filing of said United States application, and we request the Commissioner of Patents to issue any Letters Patent granted upon the invention set forth in said application to IBM, its successors and assigns; and we hereby agree that IBM may apply for foreign Letters Patent on said invention and we will execute all papers necessary in connection with the United States and foreign applications when called upon to do so by IBM.

Signed at Aug tin on Feb 10th, 2005 (1)

_on __ Signed at _____ (2)

William J. Starke

Signed at _______ on Feb. 10 2005 (3)

Signed at Custim on Feb 10th, 2005 (4)

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ASSIGNMENT

Whereas, we,

(1) Guy L. Guthrie, County of Travis,

of Austin.

usauslyb

and State of Texas,

(2) William J. Starke County of Williamson

of Round Rock, and State of Texas.

Derek E. Williams, County of Williamson,

of Austin. and State of Texas.

(4) Phillip G. Williams, County of Williamson,

of Leander, and State of Texas,

have invented certain improvements in

IMPROVING THE BANDWIDTH OF A CACHE DIRECTORY BY SLICING THE CACHE DIRECTORY INTO TWO SMALLER CACHE DIRECTORIES AND REPLICATING SNOOPING LOGIC FOR EACH SLICED CACHE DIRECTORY

(1)	United States pate (2)_	nt application thereto:	r on <i>(dates 1</i> (3)	nventors signed Declaration) , and
(4)				

Whereas, INTERNATIONAL BUSINESS MACHINES CORPORATION, a corporation of New York, having a place of business at Armonk, New York 10504, (hereinafter called IBM). desires to acquire the entire right, title and interest in the said application and invention, and to any United States and foreign patents to be obtained therefor,

Now, therefore, for a valuable consideration, receipt whereof is hereby acknowledged, we, the above named, hereby sell, assign, and transfer to IBM, its successors and assigns, the entire right, title and interest in the said application and invention therein disclosed for the United States and foreign countries, and all rights of priority resulting from the filing of said United States application, and we request the Commissioner of Patents to issue any Letters Patent granted upon the invention set forth in said application to IBM, its successors and assigns; and we hereby agree that IBM may apply for foreign Letters Patent on said invention and we will execute all papers necessary in connection with the United States and foreign applications when called upon to do so by IBM.

Page 1 of 2

(1)	Signed at	On	
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			Guy L. Guthrie
2)	Signed at (ONRO	on_	
	V .		M. N A HL
			William J. Starke
3)	Signed at	on	, 2005
	v		Derek E. Williams
4)	Signed at		, 2005
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RECORDED: 08/17/2011