PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3016578

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
DAVID JOSEPH WHELIHAN	09/02/2014
PAUL STANTON KELTCHER	09/03/2014

RECEIVING PARTY DATA

Name:	MASSACHUSETTS INSTITUTE OF TECHNOLOGY
Street Address:	77 MASSACHUSETTS AVENUE
City:	CAMBRIDGE
State/Country:	MASSACHUSETTS
Postal Code:	02139-4307

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14476848

CORRESPONDENCE DATA

Fax Number: (978)341-0136

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 978-341-0036

Email: cheryl.thomas@hbsr.com
Correspondent Name: MARY LOU WAKIMURA

Address Line 1: HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

Address Line 2: 530 VIRGINIA ROAD, P.O. BOX 9133

Address Line 4: CONCORD, MASSACHUSETTS 01742-9133

ATTORNEY DOCKET NUMBER:	0050.2222-002
NAME OF SUBMITTER:	CHERYL THOMAS
SIGNATURE:	/Cheryl Thomas/
DATE SIGNED:	09/09/2014

Total Attachments: 6

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PATENT

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PATENT REEL: 033710 FRAME: 0642

Joint

ASSIGNMENT

WHEREAS, we, **David Joseph Whelihan and Paul Stanton Keltcher**, have invented a certain improvement in **ISA Extensions For Synchronous Coalesced Accesses** described in an application for Patent,

\boxtimes	the specification of which is about to be filed in the United States Patent Office (use for utility (37 CFR § 1.53(b)) and design filings only);
	is about to be filed in the United States Patent Office as a Provisional Application;
	the specification of which is United States Application No. [], filed [];
	the specification of which is a Patent Cooperation Treaty Application, International Application No. [], filed , which designates the United States of America [and is assigned United States Application No.];
	which was patented under United States Patent No. [].

WHEREAS, Massachusetts Institute of Technology (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the Commonwealth of Massachusetts, and having a usual place of business at 77 Massachusetts Avenue, Cambridge, Massachusetts 02139-4307 desires to confirm its interest therein in accordance with agreements duly entered into with us;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue on said invention; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for any and all related provisional and nonprovisional, international and national phase applications, including any and all substitution, reissue, divisional, continuation, and continuation-in-part applications, and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein; we hereby expressly authorize the filing of an International Patent Application under the

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Patent Cooperation Treaty which corresponds to and claims the priority of the above-identified application;

AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their expense and charges, including the execution of applications for patents in foreign countries, and the execution of any future applications including substitution, reissue, divisional or continuation, continuation-in-part applications, and all related provisional and nonprovisional, international and national phase applications, and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, we do hereby authorize and request each Patent Office and the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said invention to said ASSIGNEE, its successors, assigns, and legal representatives.

Inventor Date 9/Z/19
David Joseph Whelihan
Address 25 Whitlemore RJ Framingham MA
Witness Signature YaThuan Hon
Print Witness Name Karricia Ross
Address 30 NORMAN AVC 41
Salen MA 042702
Witness Signature With Me
Print Witness Name Kosten J. Malves
Address 50 Williamine Dr.
Newson NH 03858

Inventor		_Date
	Paul Stanton Keltcher	
Address		
Witness Signature		
Address		

Joint

ASSIGNMENT.

WHEREAS, we, David Joseph Whelihan and Paul Stanton Keltcher, have invented a certain improvement in ISA Extensions For Synchronous Coalesced Accesses described in an application for Patent,

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is about to be filed in the United States Patent Office as a Provisional Application;
the specification of which is United States Application No. [], filed [];
the specification of which is a Patent Cooperation Treaty Application, International Application No. [], filed , which designates the United States of America [and is assigned United States Application No.];
which was patented under United States Patent No. [].

WHEREAS, Massachusetts Institute of Technology (hereinaster "ASSIGNEE"), a corporation organized and existing under the laws of the Commonwealth of Massachusetts, and having a usual place of business at 77 Massachusetts Avenue, Cambridge, Massachusetts 02139-4307 desires to confirm its interest therein in accordance with agreements duly entered into with us;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America. its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue on said invention; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made: we hereby convey all rights arising under or pursuant to any and all international agreements. treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for any and all related provisional and nonprovisional, international and national phase applications, including any and all substitution, reissue, divisional, continuation, and continuation-in-part applications. and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein; we hereby expressly authorize the filing of an International Patent Application under the

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Patent Cooperation Treaty which corresponds to and claims the priority of the above-identified application;

AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their expense and charges, including the execution of applications for patents in foreign countries, and the execution of any future applications including substitution, reissue, divisional or continuation, continuation-in-part applications, and all related provisional and nonprovisional, international and national phase applications, and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, we do hereby authorize and request each Patent Office and the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said invention to said ASSIGNEE, its successors, assigns, and legal representatives.

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Inventor			_Date	
	David Joseph Whe	lihan		
Address				<u> </u>
Witness Signature				
Print Witness Name				
Address				
Witness Signature				
Print Witness Name				
Address				

Inventor L		*	- p.H. 5	e ~
Paul Stanton I	Celtcher		in the second	
Address II Grossland St	- lexin	the M	0247	~
Witness Signature Wayneth	ş:			***************************************
Print Witness Name John Kalanalian	d§			
Address 2 Hunling Street Aslington	n 1911 0147	&		
Witness Signature				
Print Witness Name ANTHONY	JARVI	<u> </u>		
Address 95 HAMMIND	ST			
PCLON WY	01720	USA		
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