PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date	
Qi GAO	07/08/2010	
Min XU	07/07/2010	

RECEIVING PARTY DATA

Name:	VMware, Inc.			
Street Address:	3401 Hillview Avenue			
City:	Palo Alto			
State/Country:	CALIFORNIA			
Postal Code:	94304			

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12848023

CORRESPONDENCE DATA

Fax Number: (650)427-4818

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 650-427-1049

Email: ipadmin@vmware.com

Correspondent Name: VMWARE, INC.

Address Line 1: DARRYL SMITH

Address Line 2: 3401 Hillview Ave.

Address Line 4: PALO ALTO, CALIFORNIA 94304

ATTORNEY DOCKET NUMBER: A305

NAME OF SUBMITTER: Darryl A. Smith

Total Attachments: 4

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> PATENT REEL: 024770 FRAME: 0942

ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, I, an ASSIGNOR named below,

Qi GAO	of	Columbus, OH
Min XU	of	Palo Alto, CA

hereby sell, assign, transfer and set over to

ASSIGNEE: VMware, Inc., a Delaware corporation, having a principal place of

business at 3401 Hillview Avenue, Palo Alto, California 94304, U.S.A.

(VMware), its successors, assigns and legal representatives,

my entire right, title and interest throughout the world, including all rights to claim priority, in and to the invention(s) disclosed in:

X_U.S. Patent Application exe	cuted on or about the	date of this.	Assignment,	
U.S. Patent Application exec	cuted on		<u> </u>	, or
U.S. Patent Application No.	;, Ť	iled on	······································	
U.S. Provisional Application	No.:, filed o	n;		
International Application No	o.: <u>PCT/</u>	, filed on		
and				

ENTITLED: Method and System for Using a Virtualization System to Identify Deadlock Conditions in Multi-Threaded Programs by Controlling Scheduling in Replay

and identified by Attorney Docket Number A305;

and naming inventor(s) as follows:

INVENTOR(S): Qi GAO; Min XU

including without limitation, my entire right, title and interest in and to any and all United States and foreign applications (including any and all provisional, international, regional and foreign national applications) for said invention(s), including divisionals, continuations, continuations-in-part, renewals, substitutes and extensions thereof, and in and to any and all patents of every country or region that may be granted or have been granted for said invention(s), including any reissues and reexaminations thereof—the foreign applications including, without limitation, all applications for patents, utility models and designs which may hereafter be filed for the invention(s) in any country or countries foreign to the United States, and all forms of industrial property protection, including, without limitation, patents, utility models, inventor's certificates and designs which may be granted for the invention(s) in any country or countries foreign to the United States and all extensions, renewals and reissues thereof.

I authorize and request that the U.S. Patent Applie to the U.S. Patent Application identified above be when such Patent Application number and filing of	e inserted here, if not already shown above,
U.S. Patent Application, filed _	
I authorize ASSIGNEE to apply for patents of claim all rights of priority without further autinclude rights derived from any United States apply Patent Laws of the United States, the International Property, or any other international agreement of any such application is filed, as may be apply applications, all patents and inventor's certificates	horization from me, which priority rights lication (provisional or otherwise) under the I Convention for the Protection of Industrial the domestic laws of the country in which licable; and to own in its own name all
I agree to execute any and all documents requestlegal representatives, or nominees, at their reason prosecution of any and all United States and for regional, and foreign national applications), enforall rights in the invention(s), patents, inventor's inventor's certificates based on any of the invention of the invention of the invention of the invention of the inventor's certificates for said invention(s) in all of ASSIGNEE, its successors, assigns, legal representation reasonable expense, all information known and other materials and objects pertaining to the accessible to me; and further, at any trial, hearing I am called as a witness by ASSIGNEE, its sunominee, I agree to testify to all facts pertaining to testify.	table expense, in connection with filing and preign applications (including international, preement of all patents, and maintenance of certificates and applications for patents or rention(s); and generally to do everything cas, legal representatives, and nominees, at ang, enforcing, and maintaining patents and countries. In particular, I agree to provide to intatives, or nominees, at their request and at to or ascertainable by me and all documents invention(s) that are in the possession of or deposition or other legal proceeding where accessors, assigns, legal representatives, or
I hereby covenant that I have full right to convey this Assignment, and that no assignment, sale, li- or will be made or entered into that would conflic	cense, agreement, or encumbrance has been
I authorize and request the Commissioner of Pa and any official of any country or countries fore issue patents or other evidence or forms of indu aforesaid, to issue any U.S. Letters Patent or any granted for said invention(s) to ASSIGNEE, its su	ign to the United States, whose duty it is to strial property protection on applications as other patent or property right that may be accessors or assigns.
Executed on 07/08/2010,	by Qi GAO
Executed on,	by
Date	Min XU

ASSIGNMENT

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Min XU	of	Palo Alto, CA

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(VMware), its successors, assigns and legal representatives,

my entire right, title and interest throughout the world, including all rights to claim priority, in and to the invention(s) disclosed in:

	U.S. Patent Application executed on or J.S. Patent Application executed on			-
	J.S. Patent Application No.:			
	J.S. Provisional Application No.:			
	nternational Application No.: PCT/	, fik	ed on	
nd				

ENTITLED: Method and System for Using a Virtualization System to Identify Deadlock Conditions in Multi-Threaded Programs by Controlling Scheduling in Replay

and identified by Attorney Docket Number A305:

and naming inventor(s) as follows:

INVENTOR(S): Qi GAO; Min XU

including without limitation, my entire right, title and interest in and to any and all United States and foreign applications (including any and all provisional, international, regional and foreign national applications) for said invention(s), including divisionals, continuations, continuations-in-part, renewals, substitutes and extensions thereof, and in and to any and all patents of every country or region that may be granted or have been granted for said invention(s), including any reissues and reexaminations thereof -the foreign applications including, without limitation, all applications for patents, utility models and designs which may hereafter be filed for the invention(s) in any country or countries foreign to the United States, and all forms of industrial property protection, including, without limitation, patents, utility models, inventor's certificates and designs which may be granted for the invention(s) in any country or countries foreign to the United States and all extensions, renewals and reissues thereof.

RECORDED: 07/30/2010

Lauth	orize	and rec	quest that the	U.S. Pate	ent Appli	cation nu	mber a	ınd filing	date	correspo	onding
to the	U.S.	Patent	Application	identified	above b	e inserted	l here,	if not ali	ready	shown	above,
when	such	Patent.	Application	number ar	nd filing	date beco	me kno	own:			

U.S.	Patent	Application	. filed	

I authorize ASSIGNEE to apply for patents of foreign countries for said invention(s); to claim all rights of priority without further authorization from me, which priority rights include rights derived from any United States application (provisional or otherwise) under the Patent Laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and to own in its own name all applications, all patents and inventor's certificates in all countries based on the invention(s).

I agree to execute any and all documents requested by ASSIGNEE, its successors, assigns, legal representatives, or nominees, at their reasonable expense, in connection with filing and prosecution of any and all United States and foreign applications (including international, regional, and foreign national applications), enforcement of all patents, and maintenance of all rights in the invention(s), patents, inventor's certificates and applications for patents or inventor's certificates based on any of the invention(s); and generally to do everything possible to aid ASSIGNEE, its successors, assigns, legal representatives, and nominees, at their request and reasonable expense, in obtaining, enforcing, and maintaining patents and inventor's certificates for said invention(s) in all countries. In particular, I agree to provide to ASSIGNEE, its successors, assigns, legal representatives, or nominees, at their request and at their reasonable expense, all information known to or ascertainable by me and all documents and other materials and objects pertaining to the invention(s) that are in the possession of or accessible to me; and further, at any trial, hearing, deposition or other legal proceeding where I am called as a witness by ASSIGNEE, its successors, assigns, legal representatives, or nominee. I agree to testify to all facts pertaining to the invention(s) for which I am competent to testify.

I hereby covenant that I have full right to convey the entire interest that is being assigned by this Assignment, and that no assignment, sale, license, agreement, or encumbrance has been or will be made or entered into that would conflict with this Assignment.

I authorize and request the Commissioner of Patents and Trademarks of the United States, and any official of any country or countries foreign to the United States, whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue any U.S. Letters Patent or any other patent or property right that may be granted for said invention(s) to ASSIGNEE, its successors or assigns.

Executed on		by _		****	
	Date		Qi GAQ	¥ //	
Executed on	7,7,2010	, by	///	W. J. Jan	
.]	Date		Min XU		