#### 502554810 11/01/2013

### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT2600450

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
JOHN A. BIVENS	09/27/2013
ABHAS BODAS	09/27/2013
YU DENG	09/27/2013
RICHARD E. HARPER	09/27/2013
RUCHI MAHINDRU	10/01/2013
HARIGOVIND V. RAMASAMY	09/27/2013
SOUMITRA SARKAR	09/30/2013
LONG WANG	09/27/2013

### **RECEIVING PARTY DATA**

Name:	INTERNATIONAL BUSINESS MACHINES CORPORATION  NEW ORCHARD ROAD	
Street Address:		
City:	ARMONK	
State/Country:	NEW YORK	
Postal Code:	10504	

### PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14069738

### **CORRESPONDENCE DATA**

Fax Number: (203)255-6570 203-255-6560 Phone: car@rml-law.com Email:

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

Correspondent Name: RYAN, MASON & LEWIS, LLP

Address Line 1: 1300 POST ROAD

Address Line 2: **SUITE 205** 

Address Line 4: FAIRFIELD, CONNECTICUT 06824

REEL: 031529 FRAME: 0441

**PATENT** 

ATTORNEY DOCKET NUMBER:	YOR920130478US1	
NAME OF SUBMITTER:	MICHAEL J. COOPER	
Signature:	/Michael J. Cooper/ 11/01/2013	
Date:		
This document serves as an Oath/Declaration (37 CFR 1.63).		
Total Attachments: 7 source=YOR920130478US1_FiledAssignment_11012013#page1.tif source=YOR920130478US1_FiledAssignment_11012013#page2.tif		

source=YOR920130478US1\_FiledAssignment\_11012013#page1.tif source=YOR920130478US1\_FiledAssignment\_11012013#page2.tif source=YOR920130478US1\_FiledAssignment\_11012013#page3.tif source=YOR920130478US1\_FiledAssignment\_11012013#page4.tif source=YOR920130478US1\_FiledAssignment\_11012013#page5.tif source=YOR920130478US1\_FiledAssignment\_11012013#page6.tif source=YOR920130478US1\_FiledAssignment\_11012013#page7.tif

PATENT REEL: 031529 FRAME: 0442 FORM PTO-1595

## RECORDATION FORM COVER SHEET PATENTS ONLY

U.S. DEPARTMENT OF COMMERCE

(Rev.6-93) **Patent and Trademark Office** To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof. 1. Name of conveying party(ies): 2. Name and address of receiving party(ies) John A. Bivens, Abhas Bodas, Yu Deng, Richard E. Harper, Ruchi Mahindru, Harigovind V. **Name: International Business Machines Corporation** Ramasamy, Soumitra Sarkar and Long Wang Additional name(s) of conveying party(ies) attached? **Internal Address:** Yes **Street Address: New Orchard Road** 3. Nature of conveyance: **X** Assignment \_ Merger **ZIP: 10504** City: Armonk State: NY \_ Security Agreement \_ Change of Name Other Additional name(s) & address(es) attached? \_ Yes X No Execution Date: September 27, 2013 September 27, 2013, September 27, 2013, September 27, 2013, October 1, 2013, September 27, 2013, September 30, 2013, September 27, 2013 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: A. Patent Application No.(s) 14/069,738 Filed November 1, 2013 B. Patent No.(s) Additional numbers attached? Yes X No 6. Total number of applications and patents 5. Name and address of party to whom correspondence concerning document should be involved: 1 mailed: 7. Total Fee (37 CFR 3.41)..... \$ 40.00 Name: Michael J. Cooper Enclosed Internal Address: Ryan, Mason & Lewis, LLP Authorized to be charged to deposit account Street Address: 1300 Post Road, Suite 205 City: Fairfield State: CT ZIP: 06824 8. Deposit account number 50-0510 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. Michael J. Cooper Reg. No. 57,749 Total number of pages including cover sheet, attachments, and document: Do not detach this portion Mail documents to be recorded with required cover sheet information to: Commissioner of Patents and Trademarks **Box Assignments** Washington, DC 20231 Public burden reporting for this sample cover sheet is estimated to average about 30 minutes per document to be recorded, including time for reviewing the document and gathering the data needed, and completing and reviewing the sample cover sheet. Send comments regarding this burden estimate to the U.S. Patent and Trademark Office, Office of Information Systems, PK2-1000C, Washington, DC, 20231, and to the Office of Management and Budget, Paperwork Reduction Project (0651-0011), Washington, DC 20503,

YOR920130478US1

# DECLARATION (37 C.F.R. 1.63) FOR UTILITY PATENT APPLICATION USING AN APPLICATION DATA SHEET (37 C.F.R. 1.76) AND ASSIGNMENT

### Title of Invention: SELECTED VIRTUAL MACHINE REPLICATION AND VIRTUAL MACHINE RESTART TECHNIQUES

As a below named inventor, I hereby declare that:		
This declaration is directed to the attached application, or (if following box is checked):		
[ ] United States application or PCT international application number filed on		
The above-identified application was made or authorized to be made by me.		
I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.		
I have reviewed and understand the contents of the application, including the claims.		
I am aware of the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR Section 1.56.		
Whereas, the undersigned inventor(s) has/have made certain inventions, improvements, and discoveries (herein referred to as the "Invention") disclosed in the above-identified patent application and further identified by the IBM Docket Number provided above in the header of this document;		

Whereas, International Business Machines Corporation, a corporation of New York having a place of business at Armonk, New York (herein referred to as "IBM"), desires to acquire, and each undersigned inventor desires to grant to IBM, the entire worldwide right, title, and interest in and to the Invention and in and to any and all patent applications and patents directed thereto;

Now, therefore, for good and valuable consideration, the receipt and sufficiency thereof being hereby acknowledged, each undersigned inventor ("ASSIGNOR") hereby sells or has sold, assigns or has assigned, and otherwise transfers or has transferred to IBM (the "ASSIGNEE"), its successors, legal representatives, and assigns, the entire worldwide right, title, and interest in and to the Invention, the above-identified United States patent application, and any and all other patent applications and patents for the Invention which may be applied for or granted therefor in the United States and in all foreign countries and jurisdictions, including all divisions, continuations, reissues, reexaminations, renewals, extensions, counterparts, substitutes, and extensions thereof, and all rights of priority resulting from the filing of such applications and granting of such patents. In addition, each undersigned inventor hereby authorizes and requests the Director of the United States Patent and Trademark Office to issue any United States Patent, and foreign patent authorities to issue any foreign patent, granted for the Invention, to IBM, its successors, legal representatives, and assigns, the entire worldwide right, title, and interest in and to the same to be held and enjoyed by IBM, its successors, legal representatives, and assigns to the full end of the terms for which any and all such patents may be granted, as fully and entirely as would have been held and enjoyed by the undersigned had this Assignment not been made; and each undersigned inventor agrees to execute any and all documents and instruments and perform all lawful acts reasonably related to recording this Assignment or perfecting title to the Invention and all related patents and applications, in IBM, its successors, legal representatives, and assigns, whenever requested by IBM, its successors, legal representatives, or assigns.

Page 1 of 3

Each undersigned inventor acknowledges their prior and ongoing obligations to sell, assign, and transfer the rights under this Assignment to IBM and is unaware of any reason why they may not have the full and unencumbered right to sell, assign, and transfer the rights hereby sold, assigned, and transferred, and has not executed, and will not execute, any document or instrument in conflict herewith. Each undersigned inventor also hereby grants IBM, its successors, legal representatives, and assigns, the right to insert in this Assignment any further identification (including, but not limited to, patent Application Number) which may be necessary or desirable for recordation of this Assignment. This Assignment is governed by the substantive laws of the State of New York, and any disputes will be resolved in a New York state court or federal court sited in New York.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

(1) Legal Name of Inventor: John A. Bivens	4
Signature: AM Clau Fi	
(2) Legal Name of Inventor: Abhas Bodas	
Signature:	Date:
(3) Legal Name of Inventor: Yu Deng	
Signature:	
(4) Legal Name of Inventor: Richard E. Harper	
Signature: Whole?. Han	Date: 9/21/2013
(5) Legal Name of Inventor: Ruchi Mahindru	
Signature:	Date:

Page 2 of 3

Each undersigned inventor acknowledges their prior and ongoing obligations to sell, assign, and transfer the rights under this Assignment to IBM and is unaware of any reason why they may not have the full and unencumbered right to sell, assign, and transfer the rights hereby sold, assigned, and transferred, and has not executed, and will not execute, any document or instrument in conflict herewith. Each undersigned inventor also hereby grants IBM, its successors, legal representatives, and assigns, the right to insert in this Assignment any further identification (including, but not limited to, patent Application Number) which may be necessary or desirable for recordation of this Assignment. This Assignment is governed by the substantive laws of the State of New York, and any disputes will be resolved in a New York state court or federal court sited in New York.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

(1)	Legal Name of Inventor: John A. Bivens	
	Signature:	Date:
	Legal Name of Inventor: Abhas Bodas	
	Signature: B. Albho	Date: 09/27/13
(3)	Legal Name of Inventor: Yu Deng	
	Signature:	Date:
(4)	Legal Name of Inventor: Richard E. Harper	
	Signature:	Date:
(5)	Legal Name of Inventor: Ruchi Mahindru	
	Signature:	Dates

Page 2 of 3

Each undersigned inventor acknowledges their prior and ongoing obligations to sell, assign, and transfer the rights under this Assignment to IBM and is unaware of any reason why they may not have the full and unencumbered right to sell, assign, and transfer the rights hereby sold, assigned, and transferred, and has not executed, and will not execute, any document or instrument in conflict herewith. Each undersigned inventor also hereby grants IBM, its successors, legal representatives, and assigns, the right to insert in this Assignment any further identification (including, but not limited to, patent Application Number) which may be necessary or desirable for recordation of this Assignment. This Assignment is governed by the substantive laws of the State of New York, and any disputes will be resolved in a New York state court or federal court sited in New York.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

(1)	Legal Name of Inventor: John A. Bivens	
	Signature:	Date:
(2)	Legal Name of Inventor: Abhas Bodas	
	Signature:	Date:
(3)	Legal Name of Inventor: Yu Deng	
	Signature:	Date:
(4)	Legal Name of Inventor: Richard E. Harper	
	Signature:	Date:
(5)	Legal Name of Inventor: Ruchi Mahindru	
	Signature: Xu d	

Page 2 of 3

(6) Legal Name of Inventor: Harigovind V. Ramasamy	
Signature: R.V.M.	Date: 9/27/2013
(7) Légal Name of Inventor: Soumitra Sarkar	
Signature:	Date:
(8) Legal Name of Inventor: Long Wang	
Signature:	

(6) Legal Name of Inventor: Harigovind V. Ramasamy	
Signature:	Date:
(7) Legal Name of Inventor; Soumitra Sarkar	
Signature: Sounitra Sukar	Date: 9/30/2013
(8) Legal Name of Inventor: Long Wang	
Signature:	Date:

Page 3 of 3