502759153 04/08/2014

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT2805749

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JOHN T. OLSON	03/31/2014
SANDEEP R. PATIL	04/01/2014
RIYAZAHAMAD M. SHIRAGUPPI	04/01/2014
GAIL A. SPEAR	03/26/2014

RECEIVING PARTY DATA

Name:	International Business Machines Corporation	
Street Address:	New Orchard Road	
City:	Armonk	
State/Country:	NEW YORK	
Postal Code:	10504	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14248125

CORRESPONDENCE DATA

Fax Number: (408)971-4660

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

US Mail.

Phone: 408-971-2573

Email: april@zilkakotab.com
Correspondent Name: ZILKA-KOTAB, PC
Address Line 1: P.O. BOX 721120

Address Line 4: SAN JOSE, CALIFORNIA 95172

ATTORNEY DOCKET NUMBER: TUC1P194/TUC920130215US1	
NAME OF SUBMITTER: DOMINIC M. KOTAB	
SIGNATURE:	/Dominic M. Kotab/
DATE SIGNED: 04/08/2014	
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 6

source=TUC920130215US1_TUC1P194_Signed Assignment-Declaration_04-08-2014#page1.tif source=TUC920130215US1_TUC1P194_Signed Assignment-Declaration_04-08-2014#page2.tif

502759153 REEL: 032630 FRAME: 0232

PATENT

source=TUC920130215US1_TUC1P194_Signed Assignment-Declaration_04-08-2014#page3.tif source=TUC920130215US1_TUC1P194_Signed Assignment-Declaration_04-08-2014#page4.tif source=TUC920130215US1_TUC1P194_Signed Assignment-Declaration_04-08-2014#page5.tif source=TUC920130215US1_TUC1P194_Signed Assignment-Declaration_04-08-2014#page6.tif

PATENT REEL: 032630 FRAME: 0233

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: FILE SYSTEM SNAPSHOT DATA MANAGEMENT IN A MULTI-TIER STORAGE ENVIRONMENT

As a below named and undersigned inventor, I hereby declare that:

This declaration is directed to the attached application, or (if following box is checked):

[X] United States application or PCT international application number $\frac{14/248,125}{\text{filed on } 04/08/2014}$.

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, I ("ASSIGNOR") 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 (herein referred to as the "ASSIGNEE"), a corporation of New York having a place of business at Armonk, New York, desires to acquire, and I desire to grant to the ASSIGNEE, my 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, I hereby sell or have sold, assign or have assigned, and otherwise transfer or have transferred to the ASSIGNEE, its successors, legal representatives, and assigns, my 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, I hereby authorize and request 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 the ASSIGNEE, its successors, legal representatives, and assigns, my entire worldwide right, title, and interest in and to the same to be held and enjoyed by the ASSIGNEE, 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 me had this Assignment not been made; and I agree 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 the ASSIGNEE, its successors, legal representatives, and assigns, whenever requested by the ASSIGNEE, its successors, legal representatives, or assigns.

IBM DOCKET NUMBER: TUCIP194/TUC920130215US1

I acknowledge my prior and ongoing obligations to sell, assign, and transfer my rights under this Assignment to the ASSIGNEE and am unaware of any reason why I may not have the full and unencumbered right to sell, assign, and transfer my rights hereby sold, assigned, and transferred, and have not executed, and will not execute, any document or instrument in conflict herewith. I also hereby grant the ASSIGNEE, 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 T. Olson	
	Signature: John D. Olyan	Date: 3/31/14
(2)	Legal Name of Inventor: Sandeep R. Patil	
	Signature:	Date:
(3)	Legal Name of Inventor: Riyazahamad M. Shiraguppi	
	Signature:	Date:
(4)	Legal Name of Inventor: Gail A. Spear	
	Signature:	Date:

DECLARATION (37 C.F.R. L63) FOR UTILITY PATENT APPLICATION USING AN APPLICATION DATA SHEET (37 C.F.R. L76) AND ASSIGNMENT

Title of Invention: FILE SYSTEM SNAPSHOT DATA MANAGEMENT IN A MULTI-TIER STORAGE ENVIRONMENT

As a below mined and undersigned inventor, I hereby declare that:

This declaration is directed to the attached application, or (if following box is checked):

X United States application or PCT international application number 14/248,125 filed on 04/08/2014

The above-identified application was made or outborized to be made by the

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.

Lam invare of the duty to disclose to the United States Patent and Implemark Office all information known to me to be material to patentability as defined in 37 CVR Section 1.56.

Whereas, I ("ASSIGNOR") 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 (herein referred to as the "ASSIGNEE"), a corporation of New York having a place of business at Armonk, New York, desires to acquire, and I desire to grant to the ASSIGNEE, my entire worldwide right, title, and interest in and to the Invention and in and to any and all patent amplications and patents directed thereto:

Now, therefore, for good and valuable consideration, the receipt and sufficiency thereof being hereby acknowledged, I hereby sell or have sold, assign or have assigned, and otherwise transfer or have transferred to the ASSICNEE, its successors, legal representatives, and assigns, my 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 parents. In addition, I hereby authorize and request the Director of the United States Palent and Tradeunark Office to Issue any United States Patent, and Reeign patera authorities to issue any foreign patent, granted for the invention, to the ASSIGNEE, he successors, legal representatives, and assists, ary entire worldwide right, title, and interest in and to the same to be held and enjoyed by the ASSIGNEE. Its successors, legal representatives, and amigns to the full end of the terms for which any and all such parents may be granted, as fully and entirely as would have been held and enjoyed by me had this Assignment not been made; and I agree 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 the ASSIGNEE, its successors, legal representatives, and assigns, whenever requested by the ASSIGNEE, its successors, legal representatives, or assigns.

Page Fol 2

(BM DOCKET NUMBER: TECTP194/TUC92013021915)

Lacknowledge my prior and ongoing obligations to sell, assign, and transfer my rights under this Assignment to the ASSIGNEE and are unaware of any reason why I may not have the full and unencombered right to sell, assign, and transfer my rights hereby sold, assigned, and transferred, and have not executed, and will not execute, any document or instrument in conflict herewith. I also hereby grant the ASSIGNEE, 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 faws 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 T. Ofson	
\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	
(C) Legal Name of Inventor: Sandeep R, Patil	
Signature:	Date: 154 April 201
(3) Legal Name of Truestor: Riyazahamad M. Shiragappi	
Signature: Little 1916	Date: Not Apr 2014
(4) Legal Name of Inventor: Gail A. Spear	
Signature	Onte:

Page 2 of 2

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: FILE SYSTEM SNAPSHOT DATA MANAGEMENT IN A MULTI-TIER STORAGE ENVIRONMENT

As a below named and undersigned inventor, I hereby declare that:

This declaration is directed to the attached application, or (if following box is checked):

[X] United States application or PCT international application number 14/248, 125 filed on 04/08/2014

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, I ("ASSIGNOR") 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 (herein referred to as the "ASSIGNEE"), a corporation of New York having a place of business at Armonk, New York, desires to acquire, and I desire to grant to the ASSIGNEE, my 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, I hereby sell or have sold, assign or have assigned, and otherwise transfer or have transferred to the ASSIGNEE, its successors, legal representatives, and assigns, my 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, I hereby authorize and request 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 the ASSIGNEE, its successors, legal representatives, and assigns, my entire worldwide right, title, and interest in and to the same to be held and enjoyed by the ASSIGNEE, 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 me had this Assignment not been made; and I agree 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 the ASSIGNEE, its successors, legal representatives, and assigns, whenever requested by the ASSIGNEE, its successors, legal representatives, or assigns.

IBM DOCKET NUMBER: TUC1P194/TUC920130215US1

I acknowledge my prior and ongoing obligations to sell, assign, and transfer my rights under this Assignment to the ASSIGNEE and am unaware of any reason why I may not have the full and unencumbered right to sell, assign, and transfer my rights hereby sold, assigned, and transferred, and have not executed, and will not execute, any document or instrument in conflict herewith. I also hereby grant the ASSIGNEE, 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 T. Olson	
Signature:	Date:
(2) Legal Name of Inventor: Sandeep R. Patil	
Signature:	Date:
(3) Legal Name of Inventor: Riyazahamad M.	Shiraguppi
Signature:	Date:
(4) Legal Name of Inventor: Gail A. Spear	
Signature:	Date: 3.26.2014

Page 2 of 2