### 503617076 12/17/2015

### PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
MATTHIAS A. BLUMRICH	10/21/2015
PAUL W. COTEUS	10/18/2015
DONG CHEN	10/15/2015
ALAN GARA	11/03/2015
MARK E. GIAMPAPA	11/11/2015
PHILIP HEIDELBERGER	10/15/2015
DIRK HOENICKE	10/25/2015
TODD E. TAKKEN	10/15/2015
BURKHARD D. STEINMACHER-BUROW	10/19/2015
PAVLOS M. VRANAS	10/15/2015

#### **RECEIVING PARTY DATA**

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

### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	14972945

### CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER: YOR920040355US5(18029ABZ)

503617076 REEL: 037325 FRAME: 0135

PATENT

NAME OF SUBMITTER:	JOHN S. SENSNY	
SIGNATURE:	/John S. Sensny/	
DATE SIGNED:	12/17/2015	
This document serves as an Oath/Declaration (37 CFR 1.63).		

#### **Total Attachments: 21**

source=YOR920040355US5 FiledAssignDec#page1.tif source=YOR920040355US5\_FiledAssignDec#page2.tif source=YOR920040355US5 FiledAssignDec#page3.tif source=YOR920040355US5\_FiledAssignDec#page4.tif source=YOR920040355US5\_FiledAssignDec#page5.tif source=YOR920040355US5 FiledAssignDec#page6.tif source=YOR920040355US5 FiledAssignDec#page7.tif source=YOR920040355US5\_FiledAssignDec#page8.tif source=YOR920040355US5 FiledAssignDec#page9.tif source=YOR920040355US5 FiledAssignDec#page10.tif source=YOR920040355US5 FiledAssignDec#page11.tif source=YOR920040355US5\_FiledAssignDec#page12.tif source=YOR920040355US5 FiledAssignDec#page13.tif source=YOR920040355US5 FiledAssignDec#page14.tif source=YOR920040355US5 FiledAssignDec#page15.tif source=YOR920040355US5\_FiledAssignDec#page16.tif source=YOR920040355US5 FiledAssignDec#page17.tif source=YOR920040355US5 FiledAssignDec#page18.tif source=YOR920040355US5 FiledAssignDec#page19.tif source=YOR920040355US5 FiledAssignDec#page20.tif source=YOR920040355US5 FiledAssignDec#page21.tif

> PATENT REEL: 037325 FRAME: 0136

# 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: COLLECTIVE NETWORK FOR COMPUTER STRUCTURES

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):
[ ] United States application or PCT international application numberfiled 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 C.F.R. § 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.

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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: Matthias A. Blumrich	
Signature:	Date: 10-21-2015
(2) Legal Name of Inventor: Paul W. Coteus	
Signature:	Date:
(3) Legal Name of Inventor: Dong Chen	
Signature:	Date:
(4) Legal Name of Inventor: Alan Gara	
Signature:	Date:
(5) Legal Name of Inventor: Mark E. Giampapa	
Signature:	Date:
(6) Legal Name of Inventor: Philip Heidelberger	
Signature:	Date:

Page 2 of 3

(/) Legal Name of Inventor: Dirk Hoen	нске
Signature:	Date:
(8) Legal Name of Inventor: Todd E. Ta	akken
Signature:	Date:
(9) Legal Name of Inventor: Burkhard	D. Steinmacher-Burow
Signature:	Date:
(10) Legal Name of Inventor: Pavlos M	I. Vranas
Signature	Date

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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.

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(1) Legal Name of Inventor; Matthias A. Blumrich	
Signature:	Date:
(2) Legal Name of Inventor: <b>Paul W. Coteus</b>	
Signature: Paul W. Coffee	Date: 10/18/2015
(3) Legal Name of Inventor: Dong Chen	
Signature: Dong Chen	Date: 10/15/2015
(4) Legal Name of Inventor: Alan Gara	
Signature:	Date:
(5) Legal Name of Inventor: Mark E. Giampapa	
Signature:	Date:
(6) Legal Name of Inventor: <b>Philip Heidelberger</b>	
Signature: Phys Handen	Date: 10/15/2015

Page 2 of 3

(/) Legal Name of Inventor: Dirk Hoenicke	
Signature:	Date:
(8) Legal Name of Inventor: Todd E. Takken	
Signature: John Then	Date: 10/15/2015
(9) Legal Name of Inventor: Burkhard D. Steinmacher-Burow	
Signature:	Date:
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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):

[] United States application or PCT international application number <u>14/148,348</u> filed on <u>January 6, 2014</u>.

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 C.F.R. § 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;

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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.

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(1) Legal Name of Inventor Matthias A Rhymnich

(1) Dogar Ivanie of Involtor. Iviatinas A. Diumiren	
Signature:	Date:
(2) Legal Name of Inventor: Paul W. Coteus	
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Signature:	Date:
(4) Legal Name of Inventor: Alan Gara	
Signature:	Date: 11/3/2015
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Signature:	Date:
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Signature:	Date

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Signature: Muk E. Juppe	Date: /////a015
(6) Legal Name of Inventor: Philip Heidelberger	
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Signature:	_ Date:		
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(1) Legal Name of Inventor: Matthias A. Blumrich

OH 213

Signature:		_Date:	
(2) Legal Name of	Inventor: Paul W. Coteus		
Signature:	and the state of the	Date;	
(3) Legal Name of	Inventor: Dong Chen	in Section 1	
Signature:		_ Date:	
* .	on the second of the second		
(4) Legal Name of	Inventor: Alan Gara		on Alexandra de la comunicación de La comunicación de la comunicación
Signature:		_ Date:	
		4, 8 1	
(5) Legal Name of	f Inventor: Mark E. Giampapa		
. , .			
Signature:		Date:	
(6) Legal Name of	f Inventor: Philip Heidelberger		Stabilities Frank Ball (198
Signature:		_ Date:	

Page 2 of 3

(7) Legal Name of Inventor: Ornerolment about mobile	Dirk Hoenicke 40,434,83,010,604,011 d3	Dalle 73 1 70 PIS		
Signature:	1043804C1C4CC   42		Date: 250d,2015	O HAIS
(8) Legal Name of Inventor:	Todd E. Takken			
Signature:				
(9) Legal Name of Inventor:	Burkhard D. Steinmach	er-Burow		
Signature:			Date:	
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		. *		
Signature:			Date:	

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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.

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; Matthias A. Blumrich		
Signature:	Date:	
(2) Legal Name of Inventor: Paul W. Coteus		
Signature:	Date:	
(3) Legal Name of Inventor: Dong Chen		
Signature:	Date:	
(4) Legal Name of Inventor: Alan Gara		
Signature:	Date:	
(5) Legal Name of Inventor: Mark E. Giampapa		
Signature:	Date:	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
(6) Legal Name of Inventor: Philip Heidelberger		
Signature:	Date:	

Page 2 of 3

(7) Legal Name of Inventor: Dirk Hoenicke	
Signature:	Date:
(8) Legal Name of Inventor: Todd E. Takken	
Signature:	Date:
(9) Legal Name of Inventor: Burkhard D. Steinmacher-Burow	
Signature: Buhbod &-Brown	
(10) Legal Name of Inventor: Pavlos M. Vranas	
Signature:	Date:

# 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: COLLECTIVE NETWORK FOR COMPUTER STRUCTURES

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):
[] United States application or PCT international application numberfiled 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 C.F.R. § 1.56.
Whereas, I ("ASSIGNOR") have made certain inventions, improvements, and discoveries (herein refer 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 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, 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, entire worldwide right, title, and interest in and to the same to be held and enjoyed by the ASSIGNEE, 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 lawful acts reasonably related to recording this Assignment or perfecting title to the Invention and all related patents and applications, in th

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Page 3 of 3

PATENT REEL: 037325 FRAME: 0157

**RECORDED: 12/17/2015**