#### PATENT ASSIGNMENT

### Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
Levi A. CAMPBELL	10/17/2012
Richard C. CHU	11/14/2012
Milnes P. DAVID	10/17/2012
Michael J. ELLSWORTH Jr.	10/22/2012
Madhusudan K. IYENGAR	10/17/2012
Roger R. SCHMIDT	10/19/2012
Robert E. SIMONS	10/22/2012

#### **RECEIVING PARTY DATA**

Name:	INTERNATIONAL BUSINESS MACHINES CORPORATION		
Street Address:	eet Address: New Orchard Road		
City:	Armonk		
State/Country:	NEW YORK		
Postal Code:	10504		

### PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	13676212	

#### **CORRESPONDENCE DATA**

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ATTORNEY DOCKET NUMBER: POU920110097US2

**PATENT** REEL: 029294 FRAME: 0584

NAME OF SUBMITTER:	Kevin P. Radigan, Esq.			
This document serves as an Oath/Declaration (37 CFR 1.63).				
Total Attachments: 8 source=POU920110097US2_Assignment-Statement#page1.tif source=POU920110097US2_Assignment-Statement#page2.tif source=POU920110097US2_Assignment-Statement#page3.tif source=POU920110097US2_Assignment-Statement#page4.tif source=POU920110097US2_Assignment-Statement#page5.tif				
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PATENT REEL: 029294 FRAME: 0585

## 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: DATA CENTER COOLING WITH AN AIR-SIDE ECONOMIZER AND LIQUID-COOLED ELECTRONICS RACK(S)

As a belov	v nam	ed inventor. I hereby declare that:
This decla	ration	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 assîgns, 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: Levi A. CAMPBELL	
Signature: L2 Chil	Date: /0/17/12_
2) Legal Name of Inventor: Richard C. CHU	
Signature: (See Substitute Statement in Lieu of Oath o	or Declaration) Date:
(3) Legal Name of Inventor: Milnes P. DAVID	
Signature:	Date: 10/17/2012
4) Legal Name of Inventor: Michael J. ELLSWORTH,	
Signature: Mahalf Ellewit	Date: 10/22/2012
5) Legal Name of Inventor: Madhusudan K. IYENGAR	
Signature:	Date:

(6) Legal Name of Inventor: Roger R. SCHMIDT	
Signature: Ang Almonth	Date: 10/19/2012
(7) Legal Name of Inventor: Robert F. SIMONS	, ,
Signature: Signature:	Date: 10/22/2012

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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.

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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: Levi A. CAMPBELL	
	Signature:	Date:
(2)	Legal Name of Inventor: Richard C. CHU	
	Signature: (See Substitute Statement in Lieu of Oath or Declaration)	tion) Date:
(3)	) Legal Name of Inventor: Milnes P. DAVID	
	Signature:	Date:
( <del>4</del> )	Legal Name of Inventor: Michael J. ELLSWORTH, Jr.	
	Signature:	Date:
(5)	Legal Name of Inventor: Madhusudan K. IYENGAR	
	Signature: Q.K. Hywfay.	Date: 10 17/2012_

Page 2 of 3

(6)	Legal Name of Inventor: Roger R. SCHMIDT	
	Signature:	Date:
(7)	Legal Name of Inventor: Robert E. SIMONS	
	Signature:	Date:

0560.1021A/KPR/sdm

Doc code: Oath Document Description: Oath or declaration filed

PTO/AIA/02 (06-12) Approved for use through 01/31/2014, OMB 0651-0032

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# SUBSTITUTE STATEMENT IN LIEU OF AN OATH OR DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (35 U.S.C. 115(d) AND 37 CFR 1.64)

Title of Invention	DATA CENTER COOLING WITH AN AIR-SIDE ECONOMIZER				
This stateme	ent is directed to:				
The att	ached application,				
OR OR					
United :	States application or PCT international	application number	<del></del>	filed on	
LEGAL NA	ME of inventor to whom this sul	stitute statement appl	ies:	······································	
( <i>E.g<sub>o</sub></i> Given	Name (first and middle (if any)) and Fa	amily Name or Surname)			
		Richard C. CHU	)		
Residence (	except for a deceased or legally incapa	icitated inventor):	ýo, comunicamento		
City	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	State	Country		
Mailing Addre	ss (except for a deceased or legally incapa	citated inventor):	·····		-
City		State	Zip		Country
I believe the in the ap	above-named inventor or joint invento plication.	er to be the original inventor	or an origir	nal joint invento	of a claimed invention
The above-i	dentified application was made or auth	orized to be made by me.			
I hereby acknowledge that any willful false statement made in this statement is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.					
Relationship to the inventor to whom this substitute statement applies:					
Legal Representative (for deceased or legally incapacitated inventor only),					
Assignee,					
Person to whom the inventor is under an obligation to assign,					
Person who otherwise shows a sufficient proprietary interest in the matter (petition under 37 CFR 1.46 is required), or					
Joint Inventor.					
5					

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This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1 minute to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS, SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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### SUBSTITUTE STATEMENT

Circumstances permitting execution of this substitute statement:			
Inventor is deceased,			
Inventor is under legal încapacity,			
Inventor cannot be found or reached after diligent effort, or			
Inventor has refused to execute the oath or declaration under 37 CFR 1.63.			
If there are joint inventors, please check the appropriate box below:			
An application data sheet under 37 CFR 1.76 (PTO/AIA/14 or equivalent) naming the entire inventive entity has been or is currently submitted.			
OR			
An application data sheet under 37 CFR 1.76 (PTO/AIA/14 or equivalent) has not been submitted. Thus, a Substitute Statement Supplemental Sheet (PTO/AIA/11 or equivalent) naming the entire inventive entity and providing inventor information is attached. See 37 CFR 1.64(b).			
WARNING:			
contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.			
PERSON EXECUTING THIS SUBSTITUTE STATEMENT:			
lame: Kevin P. Radigan, Esq Reg. No. 31789			11/14/12 Date (Optional):
Signature: Kin. P. Rodina			
Residence (unless provided in an application data sheet, PTO/SB/14 or equivalent):			
<sub>City</sub> Burnt Hills	State NY	Country US	
Mailing Address (unless provided in an application data sheet, PTO/SB/14 or equivalent) HESLIN ROTHENBERG FARLEY & MESITI P.C. 5 COLUMBIA CIRCLE			
<sub>City</sub> Albany	State NY	<sub>Zip</sub> 12203	Country US
Note: Use an additional PTO/AIA/02 form for each inventor who is deceased, legally incapacitated, cannot be found or reached after diligent effort, or has refused to execute the oath or declaration under 37 CFR 1.63.			

[Page 2 of 2]

**RECORDED: 11/14/2012**