PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT3458090

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
LAMBERT S. BERENTSEN	07/24/2015
GREGORY J. BOSS	07/24/2015
RICK A. HAMILTON II	07/25/2015
JAMES R. KOZLOSKI	07/27/2015

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:	14810822

CORRESPONDENCE DATA

Fax Number: (607)429-4119

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 607-429-5281

Email: dlhochdo@us.ibm.com

Correspondent Name: IBM CORPORATION - ENDICOTT DRAFTING CENT

Address Line 1: 1701 NORTH STREET Address Line 2: **BUILDING 256-3**

Address Line 4: **ENDICOTT, NEW YORK 13760**

ATTORNEY DOCKET NUMBER:	END920150078US1
NAME OF SUBMITTER:	DAVID M. QUINN
SIGNATURE:	/David M. Quinn/
DATE SIGNED:	07/28/2015
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 8

PATENT REEL: 036194 FRAME: 0891



PATENT REEL: 036194 FRAME: 0892

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: COMMUNICATING WITH ISOLATED MOBILE DEVICES IN INDOOR POSITIONING SYSTEMS

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
The above-identified application was made or authorized to be made by me.
believe that I am the original inventor or an original joint inventor of a claimed invention in the application.
have reviewed and understand the contents of the application, including the claims.
am aware of the duty to disclose to the United States Patent and Trademark Office all information mown 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

BM Docket Number provided above in the header of this document;

Whereas, International Business Machines Corporation (herein referred to as the "ASSIGNEE"), a orporation of New York having a place of business at Armonk, New York, desires to acquire, and I

o as the "Invention") disclosed in the above-identified patent application and further identified by the

orporation of New York having a place of business at Armonk, New York, desires to acquire, and I lesire to grant to the ASSIGNEE, my entire worldwide right, title, and interest in and to the Invention and n and to any and all patent applications and patents directed thereto;

vow, therefore, for good and valuable consideration, the receipt and sufficiency thereof being hereby cknowledged, I hereby sell or have sold, assign or have assigned, and otherwise transfer or have ransferred to the ASSIGNEE, its successors, legal representatives, and assigns, my entire worldwide ight, title, and interest in and to the Invention, the above-identified United States patent application, and ny and all other patent applications and patents for the invention which may be applied for or granted herefor in the United States and in all foreign countries and jurisdictions, including all divisions, ontinuations, reissues, reexaminations, renewals, extensions, counterparts, substitutes, and extensions hereof, and all rights of priority resulting from the filing of such applications and granting of such atents. In addition, I hereby authorize and request the Director of the United States Patent and rademark Office to issue any United States Patent, and foreign patent authorities to issue any foreign atent, granted for the Invention, to the ASSIGNEE, its successors, legal representatives, and assigns, my ntire worldwide right, title, and interest in and to the same to be held and enjoyed by the ASSIGNEE, its accessors, legal representatives, and assigns to the full end of the terms for which any and all such atents 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 twful acts reasonably related to recording this Assignment or perfecting title to the Invention and all elated patents and applications, in the ASSIGNEE, its successors, legal representatives, and assigns, henever requested by the ASSIGNEE, its successors, legal representatives, or assigns.

Page 1 of 2

PATENT REEL: 036194 FRAME: 0893 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: Lambert S. Berentsen		
	Signature: ZAS. Bast	Date:	7/24/2015
(2)	Legal Name of Inventor: Gregory J. Boss		
	Signature:	Date:_	
(3)	Legal Name of Inventor: Rick A. Hamilton II		
	Signature:	Date:_	
(4)	Legal Name of Inventor: James R. Kozloski		
	Signature:	Date:_	

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

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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.

Page 1 of 2

I acknowledge my prior and ongoing obligations to self, 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 self, 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.

Thereby 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: Lambert S. Berentsen	
Signature:	Date:
(2) Legal Name of Inventor: Gregory J. Boss	
Signature: My 1/5	Date: 7-24-2015
(3) Legal Name of Inventor: Rick A. Hamilton II	
Signature:	Date:
(4) Legal Name of Inventor: James R. Kozloski	
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: COMMUNICATING WITH ISOLATED MOBILE DEVICES IN INDOOR POSITIONING SYSTEMS

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.
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ition") 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,

Page 1 of 2

IBM DOCKET NUMBER: END920150078UST

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.

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1)	Legal Name of Inventor. Lambert S. Berentsen	
	Signature:	Date:
(2)	Legal Name of Inventor: Gregory J. Boss	
	Signature:	Date:
(3)	Legal Name of Inventor: Rick A. Hamilton II Signature: Supplementary Actual Communication Signature: Supplementary Supplementar	
(4)) Legal Name of Inventor: James R. Kozloski	
	Signature:	Date:

Page 2 of 2

IBM DOCKET NUMBER: EN1920150078US1

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: COMMUNICATING WITH ISOLATED MOBILE DEVICES IN INDOOR POSITIONING SYSTEMS

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	117777
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 ain aware of the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to parentability as defined in 37 CFR Section 1.56.

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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 filling 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 putent, granted for the Invention, to the ASSIGNEE, its successors, legal representatives, and assigns, no entire worklydde right, title, and interest in and to the same to be held and enjoyed by the ASSIGNLE. It's 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 had this Assignment not been made; and I agree to execute any and all documents and instruments and perform all hawful acts reasonably related to recording this Assignment or perfecting title to the Invention and all related patents and applications, in the ASSIGNEE, its successors, local representatives, and assigns, whenever requested by the ASSIGNEE, its successors, legal representatives, or assigns,

Page 1 of 3

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Signature:			Date:
+ Legal Name	of Inventor: Gre	gory J. Boss	
Signatore:			Dafe:
) Legid Name (of Inventor: Rick	A. Hamilton H	
COO			Dates
218minus;			
	of fuscutor: Jame	es R. Kozloski	

Page 2 of 2