## 503690189 02/12/2016

## PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
RANDALL L. COGILL	02/08/2016
CHUNGMOK LEE	12/23/2015
ZUBAIR NABI	12/25/2015
JOE NAOUM-SAWAYA	12/19/2015
MARTIN RUFLI	12/22/2015
ROBERT SHORTEN	02/10/2016
TIGRAN TCHRAKIAN	01/18/2016
RUDI VERAGO	12/22/2015
FABIAN WIRTH	12/23/2015
SERGIY ZHUK	01/18/2016

#### **RECEIVING PARTY DATA**

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Street Address:	NEW ORCHARD ROAD
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Postal Code:	10504

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

Property Type	Number
Application Number:	14980341

### **CORRESPONDENCE DATA**

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PATENT 503690189 REEL: 037809 FRAME: 0546

NAME OF SUBMITTER:	PAUL J. ESATTO, JR.	
SIGNATURE:	/Paul J. Esatto, Jr./	
DATE SIGNED:	02/12/2016	
	This document serves as an Oath/Declaration (37 CFR 1.63).	

#### **Total Attachments: 30**

source=YOR920151227US1 Assignment Declaration#page1.tif source=YOR920151227US1 Assignment Declaration#page2.tif source=YOR920151227US1 Assignment Declaration#page3.tif source=YOR920151227US1\_Assignment\_Declaration#page4.tif source=YOR920151227US1\_Assignment\_Declaration#page5.tif source=YOR920151227US1 Assignment Declaration#page6.tif source=YOR920151227US1 Assignment Declaration#page7.tif source=YOR920151227US1\_Assignment\_Declaration#page8.tif source=YOR920151227US1 Assignment Declaration#page9.tif source=YOR920151227US1 Assignment Declaration#page10.tif source=YOR920151227US1 Assignment Declaration#page11.tif source=YOR920151227US1\_Assignment\_Declaration#page12.tif source=YOR920151227US1 Assignment Declaration#page13.tif source=YOR920151227US1 Assignment Declaration#page14.tif source=YOR920151227US1 Assignment Declaration#page15.tif source=YOR920151227US1\_Assignment\_Declaration#page16.tif source=YOR920151227US1\_Assignment\_Declaration#page17.tif source=YOR920151227US1 Assignment Declaration#page18.tif source=YOR920151227US1 Assignment Declaration#page19.tif source=YOR920151227US1 Assignment Declaration#page20.tif source=YOR920151227US1\_Assignment\_Declaration#page21.tif source=YOR920151227US1\_Assignment\_Declaration#page22.tif source=YOR920151227US1\_Assignment\_Declaration#page23.tif source=YOR920151227US1 Assignment Declaration#page24.tif source=YOR920151227US1\_Assignment\_Declaration#page25.tif source=YOR920151227US1\_Assignment\_Declaration#page26.tif source=YOR920151227US1 Assignment Declaration#page27.tif source=YOR920151227US1 Assignment Declaration#page28.tif source=YOR920151227US1\_Assignment\_Declaration#page29.tif source=YOR920151227US1 Assignment Declaration#page30.tif

> PATENT REEL: 037809 FRAME: 0547

Title of Invention: SYSTEM FOR CHARGING MOBILE DEVICE USING AN AD-HOC INFRASTRUCTURE WITH ENERGY HARVESTING CAPABILITIES

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.

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: Randall L. Cogill	
Signature:	Date: 8/2/20/6
(2) Legal Name of Inventor: Chungmok Lee	
Signature:	Date:
(3) Legal Name of Inventor: Zubair Nabi	
Signature:	Date:
(4) Legal Name of Inventor: Joe Naoum-Sawaya	
Signature:	Date:
(5) Legal Name of Inventor: Martin Rufli	
Signature:	Date:
(6) Legal Name of Inventor: Robert Shorten	
Signature:	Date:
(7) Legal Name of Inventor: Tigran Tchrakian	
Signature:	Date:

(8) Legal Name of Inventor: Rudi Verago		
Signature:	Date;	
(9) Legal Name of Inventor: Fabian Wirth		
Signature:	Date:	
(10) Legal Name of Inventor: Sergiy Zhuk		
Signature:	Date:	

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Page 1 of 3

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Signature:	Date:
(2) Legal Name of Inventor: Chungmok Lee	
Signature:	Date: 23//2/20/3
(3) Legal Name of Inventor: <b>Zubair Nabi</b>	
Signature:	Date:
(4) Legal Name of Inventor: Joe Naoum-Sawaya	
Signature:	Date:
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Signature:	Date:
(7) Legal Name of Inventor: Tigran Tchrakian	
Signature:	Date:
(8) Legal Name of Inventor: Rudi Verago	

Page 2 of 3

(b) Dogar France of inventor. Ruth	verago	
Signature:		Date:
(9) Legal Name of Inventor: Fabia	an Wirth	
Signature:		Date:
(10) Legal Name of Inventor: Serg	giy Zhuk	
Signature:		Date:

Page 3 of 3

PATENT REEL: 037809 FRAME: 0553

Title of Invention: SYSTEM FOR CHARGING MOBILE DEVICE USING AN AD-HOC INFRASTRUCTURE WITH ENERGY HARVESTING CAPABILITIES

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,

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Signature:	Date:
(2) Legal Name of Inventor: Chungmok Lee	
Signature:	Date:
(3) Legal Name of Inventor: Zubair Nabi	
Signature:	Date: <u>25/12/2015</u>
(4) Legal Name of Inventor: Joe Naoum-Sawaya	
Signature:	Date:
(5) Legal Name of Inventor: Martin Rufli	
Signature:	Date:
(6) Legal Name of Inventor: Robert Shorten	
Signature:	Date:
(7) Legal Name of Inventor: Tigran Tchrakian	
Signature:	Date:
(8) Legal Name of Inventor: Rudi Verago	

Page 2 of 3

Signature:	Date:	_
(9) Legal Name of Inventor: Fabian Wirth		
Signature:	Date:	_
(10) Legal Name of Inventor: Sergiy Zhuk		
Signature:	Date:	

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(1) Legal Name of Inventor:	Randall L. Cogill	is also dejo para si ili gili kilo. Li	1 Day	in the second se
Signature:	<u> ئىلىنىڭ ئىلى</u>	<u> </u>	_ Date:	
(2) Legal Name of Inventor:	Chungmok Lee	a man man the sheet to be the sheet sheet sheet all all all all all all all all all al	ing of the sign	North Control of the
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(3) Legal Name of Inventor:			. 188.	and the second second
Signature:	1	A CONTRACTOR SERVICE	n∴a .	4
(4) Legal Name of Inventor:	Joe Naoum-Saway	rigepigh (Kokalish ) (1986) <b>Ya</b> liha ili Umebika okim lan	en de la companya de La companya de la co	- The Art
Signature:	#		_Date:_\	Dec 2015
(5) Legal Name of Inventor:	Martin Rufli	da a men edikula namber Lenamen makamak kendang ken	Significant of the significant o	Andrew Commence
Signature:	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Berger (1986) (1		$(x_i)^{\frac{1}{2}}(x_i) = (x_i)^{\frac{1}{2}}(x_i)^{\frac{1}{2}}(x_i)$
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				<u>。1945年 - 東華語 1947</u> 年
(7) Legal Name of Inventor:		Communication of the		
Signature:		t	_Date;	- 10 St

Page 2 of 3

(o) Legal Name of Inventor. Rudi verago		
Signature:	Date;	
(9) Legal Name of Inventor: Fabian Wirth		
Signature:	Date:	
(10) Legal Name of Inventor: Sergiy Zhuk		
Šičnature	Dates	

Page 3 of 3

Title of Invention: SYSTEM FOR CHARGING MOBILE DEVICE USING AN AD-HOC INFRASTRUCTURE WITH ENERGY HARVESTING CAPABILITIES

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PATENT

REEL: 037809 FRAME: 0561

(8) Legal Name of Inventor: Rudi Verago	
Signature:	Date:
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Signaturer	Date

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Signature:	Date:
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R.N. Shorts.	·
Signature:	Date: Feb 10 2016

Page 2 of 3

(7) Legal Name of Inventor: Tigran Tchrakian

Signature:	Date:
(8) Legal Name of Inventor: Rudi Verago	
Signature:	Date:
(9) Legal Name of Inventor: Fabian Wirth	
Signature:	Date:
(10) Legal Name of Inventor: Sergiy Zhuk	
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: SYSTEM FOR CHARGING MOBILE DEVICE USING AN AD-HOC INFRASTRUCTURE WITH ENERGY HARVESTING CAPABILITIES

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	रक
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;	red
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 des to grant to the ASSIGNEE, my entire worldwide right, title, and interest in and to the Invention and in a 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, an 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, in entire worldwide right, title, and interest in and to the same to be held and enjoyed by the ASSIGNEE, i successors, legal representatives, 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 the ASSIGNEE, its successors, legal representative	ind d

whenever requested by the ASSIGNEE, its successors, legal representatives, or assigns.

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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: Randall L. Cogill	
Signature;	Date:
(2) Legal Name of Inventor: Chungmok Lee	
Signature:	Date:
(3) Legal Name of Inventor: Zubair Nabi	
Signature:	Date;
(4) Legal Name of Inventor: Joe Naoum-Sawaya	
Signature:	Date:
(5) Legal Name of Inventor: Martin Rufli	•
Signature:	Date:
(6) Legal Name of Inventor: Robert Shorten	
Signature	Date:
(7) Legal Name of Inventor: Tigran Tchrakian	
Signature: L. Jel	Date: 18 Jan 2016

Page 2 of 3

(8) Legal Name of Inventor: Rudi Verago	A STATE OF THE STA	
Signature:	Date:	
(9) Legal Name of Inventor: Fabian Wirth		
Signature:	Date:	
(10) Legal Name of Inventor: Sergiy Zhuk		
Signature:	Date:	

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Page 1 of 3

related patents and applications, in the ASSIGNEE, its successors, legal representatives, and assigns,

whenever requested by the ASSIGNEE, its successors, legal representatives, or assigns.

PATENT REEL: 037809 FRAME: 0569

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: Randall L. Cogill	
Signature:	Date:
(2) Legal Name of Inventor: <b>Chungmok Lee</b>	
Signature:	Date:
(3) Legal Name of Inventor: <b>Zubair Nabi</b>	
Signature;	Date:
(4) Legal Name of Inventor; <b>Joe Naoum-Sawaya</b>	
Signature:	Date:
(5) Legal Name of Inventor; Martin Rufli	
Signature:	Date:
(6) Legal Name of Inventor: Robert Shorten	
Signature:	Date:
(7) Legal Name of Inventor: <b>Tigran Tchrakian</b>	
Signature:	Date:

Page 2 of 3

PATENT

REEL: 037809 FRAME: 0570

(8) Legal Name of Inventor: Rudi Verago	
Signature: Per Li Verg	Date: 22/12/2013
(9) Legal Name of Inventor: Fabian Wirth	
Signature;	Date:
(10) Legal Name of Inventor: Sergiy Zhuk	
Signature:	Date

Page 3 of 3

PATENT

REEL: 037809 FRAME: 0571

Title of Invention: SYSTEM FOR CHARGING MOBILE DEVICE USING AN AD-HOC INFRASTRUCTURE WITH ENERGY HARVESTING CAPABILITIES

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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

Page 1 of 3

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,

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Signature:	Date:	
(7) Legal Name of Inventor: Tigran Tchrakian		
Signature:	Date:	

Page 2 of 3

(8) Legal Name of inventor, Kudi Verago	
Signature:	Date:
(9) Legal Name of Inventor: Fabian Wirth	
Signature: Falsian Will	Date: 23/12/2015
(10) Legal Name of Inventor: Sergiy Zhuk	
Signature:	Date:

Page 3 of 3

PATENT REEL: 037809 FRAME: 0574

# 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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Signature:	Date:	
(7) Legal Name of Inventor: Tigran Tchrakian	·	
Signature:	Date:	
(8) Legal Name of Inventor: Rudi Verago		
Signature:	Date:	

Page 2 of 3

(9) Legal Name of Inventor: Fabian Wirth			
Signature:		Date:	
(10) Legal Name of Inventor: Sergiy Zhuk	Orlyfr		
Signature:		Date: 18.01.2016	

Page 3 of 3

PATENT REEL: 037809 FRAME: 0577

**RECORDED: 02/12/2016**