504599931 10/18/2017

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
PAUL SHALA HENRY	10/03/2017
GIOVANNI VANNUCCI	10/04/2017
THOMAS M. WILLIS III	10/03/2017
SHIKIK JOHNSON	10/03/2017
ROBERT BENNETT	10/05/2017
FARHAD BARZEGAR	10/03/2017
IRWIN GERSZBERG	10/03/2017
DONALD J. BARNICKEL	10/03/2017

RECEIVING PARTY DATA

Name:	AT&T INTELLECTUAL PROPERTY I, L.P.
Street Address:	675 W. PEACHTREE STREET
Internal Address:	SUITE 4000
City:	ATLANTA
State/Country:	GEORGIA
Postal Code:	30308

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15786034

CORRESPONDENCE DATA

Fax Number: (847)510-0710

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.

using a lax number, ii provideu, ii that is unsuccessiul, it will be sent via 03 mai

Correspondent Name: AT&T LEGAL DEPARTMENT - GG ATTN: PATENT

Address Line 1: ROOM 2A-207
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Address Line 4: BEDMINSTER, NEW JERSEY 07921

ATTORNEY DOCKET NUMBER:	7785-1522-01
NAME OF SUBMITTER:	JILL R. HOLMAN

504599931 PATENT REEL: 043895 FRAME: 0636

SIGNATURE:	/JILL R. HOLMAN/
DATE SIGNED:	10/18/2017
Total Attachments: 10	
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PATENT REEL: 043895 FRAME: 0637

ASSIGNMENT

WHEREAS We, PAUL SHALA HENRY, residing at 7 Crow Field Lane, Holmdel, NJ 07733, and GIOVANNI VANNUCCI, residing at 329 Rutledge Dr, Middletown, NJ 07701, and THOMAS M. WILLIS III, residing at 10 Beverly Court. Tinton Falls, NJ 07724, and SHIKIK JOHNSON, residing at 15 Diane Drive. Tinton Falls, NJ 07753, and ROBERT BENNETT, residing at 1540 North Bayview Rd EXT, Southold, NY 11971, and FARHAD BARZEGAR, residing at 14 Farrington Lane, Branchburg, NJ 08876, and IRWIN GERSZBERG, residing at 12 Dickinson Road, Kendall Park, NJ 08824, and DONALD J. BARNICKEL, residing at 3 Wells Road. Flemington, NJ 08822, hereinafter referred to as Assignor, am listed as an inventor on a patent application entitled METHODS AND APPARATUS FOR ADJUSTING A WAVELENGTH ELECTROMAGNETIC WAVES; having AT&T Docket No. 2016-0721 CIP, US Patent Application Serial no. 15/786,034 , for a full description of which reference is here made to an application for Letters Paters of the United States; and

WHEREAS, AT&T Intellectual Property I, L.P., a Partnership organized and existing under the laws of Nevada and having an address at 675 W. Peachtree Street, Suite 4000, Atlanta. GA 30308, (hereinafter referred to as Assignee), desires to acquire the entire right, title and interest for the United States of America and elsewhere throughout the world in and to said invention and the patent application identified above, including any and all divisions and continuations thereof and any and all Letters Patent which may be granted thereon, including any and all renewals, reissues and prolongations thereto:

NOW THEREFORE, be it known that for and in consideration of the sum of Ten Dollars (\$10.00) and other good and valuable consideration the receipt of which from Assignee is hereby acknowledged. I, as Assignor, have sold, assigned, transferred, and set over, and do hereby sell, assign, transfer, and set over unto the Assignee, its lawful successors and assigns, my entire right, title, and interest in and to this invention and this non-provisional application, and all divisions, substitutions, and continuations thereof; and all Letters Patent of the United States which may be granted thereon, and all reexaminations and reissues thereof; and all rights to claim priority on the basis of the above provisional application (if any), as well as all rights to claim priority on the basis of this application; and all applications for Letters Patent which may hereafter be filed for this invention in any foreign country and all Letters Patent which may be granted on this invention in any foreign country, including certificates of inventions, utility models, industrial design protection, design patent protection, and other governmental grants or issuances; and all extensions, renewals, prolongations, and reissues thereof; to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term and terms for all such patents;

AND, I HEREBY authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any foreign country whose duty it is to issue patents on applications as described above, to issue all Letters Patent for this invention to Assignee, its successors and assigns, in accordance with the terms of this Assignment:

AND, I HEREBY covenant that I have the full right to convey the interest assigned by this Assignment, and I have not executed and will not execute any assignment, sale, license, agreement, or encumbrance in conflict with this Assignment; Assignor also authorizes the Assignee, any agent of the Assignee, and any attorney of the Assignee to fill in the U.S. Application Serial No. above, and any further identification information, if required;

Page 1 of 10

AND, I HEREBY further covenant and agree, for the Assignor and the Assignor's legal representatives, that I will, without further consideration, communicate with Assignee, its successors and assigns, any facts known to us respecting this invention; assist the Assignee in the prosecution of the patent application identified above; assist in the making and prosecution of any other patent applications that the Assignee may elect to make covering the invention identified above; testify in any interference, litigation, or other legal proceeding; sign all lawful papers when called upon to do so; execute and deliver any and all papers that may be necessary or desirable to perfect the title to this invention in said Assignee, its successors or assigns; execute all divisional, continuation, and reissue applications; make all rightful oaths and generally do everything possible to aid Assignee, to obtain and enforce proper patent protection for this invention in the United States and any foreign country, it being understood that any expense incident to the execution of such papers shall be borne by the Assignee; and hereby instruct, and further covenant and agree to bind our heirs, legal representatives, and assigns, to do same, without compensation, but at the expense of Assignee or its representatives.

AND, I HEREBY consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any document which may be required in any country in proof of the right of **AT&T Intellectual Property I, L.P.** to apply for patent or other form of protection for said inventions and to claim the aforesaid benefit of the right of priority.

This Assignment may be executed in any number of counterparts, each of which when so executed and delivered shall be deemed an original, and such counterparts together shall constitute one and the same instrument. A facsimile copy of this Assignment, or any form of an electronic copy of this Assignment, including the signature pages hereto, shall be deemed to be an original.

IN TESTIMONY WHEREOF, I have hereunto set my hand this day of Ocio. 2017. PAUL SHALA HENRY
State of New Serger County of Monnaith
On this
for the above County and State, personally appeared **Tack Shala Heney**, and acknowledged the execution of the foregoing assignment as his/her free act and deed for the purpose herein set forth.
Notary Public My Commission Expires: NANCY A. HENDERSON NOTARY PUBLIC OF NEW JERSEY Comm. # 50027401 My Commission Expires:

IN TESTIMONY WHEREOF. I have hereunto set my hand this	4th day of October 2017.
IN TESTIMONY WHEREOF. I have hereunto set my hand this	ANNUCCI
State of MCW SWSCY) County of Monworth	
On this 4 day of CX TORCE . 20)17. before me a Notary Public in and
for the above County and State, personally appeared HOVANNE VANNECCE, and acknow	
assignment as his/her free act and deed for the purpose herein set	
Notary Public My Commission Expires:	NANCY A. HENDERSON NOTARY PUBLIC OF NEW JERSEY Comm. # 50027401 My Commission Expires 12/1/2020

IN TESTIMONY WHEREOF, I have hereunto set by hand this the transfer of the tra	31d day of Oct 2017. CIMILE LLITTE WILLIS III
State of New Surger, County of Monmonth	
On this Z day of CCODEC . 20	017, before me a Notary Public in and
for the above County and State, personally appeared Themas M Woulds III, and acknow assignment as his/her free act and deed for the purpose herein set	
,	forth,
Notary Public My Commission Expires:	NANCY A. HENDERSON NOTARY PUBLIC OF NEW JERSEY Comm. # 50027401 My Commission Expires 12/1/2020

IN TESTIMONY WHEREOF, I have hereur	onto set my hand this 3 day of CC(. 2017. SHIKIK JOHNSON
State of Mew Subly) County of Monmouth	
for the above County and State, personally ap	peared, and acknowledged the execution of the foregoing
assignment as his/her free act and deed for the Act of the Act of	NANCY A. HENDERSON NOTARY PUBLIC OF NEW JERSEY Comm. # 50027401 My Commission Expires 12/1/2020

IN TESTIMONY WHEREOF, I have hereunto set my hand this	5 day of Co+ , 2017.
ROBERT BET	NNETT
State of MW SUBLY) County of Homorous (1)	
County of Hongy with)	
On this D day of October . 20	117, before me a Notary Public in and
for the above County and State, personally appeared	
Robert Bennett, and acknow	
assignment as his/her free act and deed for the purpose herein set	forth.
My Commission Expires:	NANCY A. HENDERSON NOTARY PUBLIC OF NEW JERSEY Comm. # 50027401 My Commission Expires 12/1/2020

IN TESTIMONY WHEREOF, I have hereunto set my hand this 3 day of Color 2017.
State of MUSINGUY) County of Monmarch
County of Monmarth)
On this 3 day of 0000 . 2017, before me a Notary Public in and
for the above County and State, personally appeared
Sarhad Barzage, and acknowledged the execution of the foregoing
assignment as his/her free act and deed for the purpose herein set forth.
NANCY A. HENDERSON NOTARY PUBLIC OF NEW JERSEY Comm. # 50027401 My Commission Expires: My Commission Expires:

IN TESTIMONY WHEREOF, I have hereunto set my hand th	ais 3 day of OCT 2017.
/	RSZBERG T
State of Manager) County of Manager)	
County of Managery)	
On this 3 day of October.	2017, before me a Notary Public in and
for the above County and State, personally appeared	
July Herszberg, and acknows assignment as his/her free act and dood for the name of	owledged the execution of the foregoing
assignment as his/her free act and deed for the purpose herein so	et forth.
Jarrey @ Henderson	NANCY A. HENDERSON NOTARY PUBLIC OF NEW JERSEY
Notary Public My Commission Expires:	Comm. # 50027401

IN TESTIMONY WHEREOF, I have hereunto set my hand this 300 day of croser. 2017.
DONALD J. BARNICKEL
State of Dow Strait,
County of Mongreth,
On this 5 day of COSOC , 2017, before me a Notary Public in and
for the above County and State, personally appeared
David J. Barotchef, and acknowledged the execution of the foregoing
assignment as his/her free act and deed for the purpose herein set forth.
Notary Public My Commission Expires: NANCY A. HENDERSON NOTARY PUBLIC OF NEW JERSEY Comm. # 50027401 My Commission Expires 12/1/2020