504667385 12/01/2017

PATENT ASSIGNMENT COVER SHEET

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| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|-----------------------|----------------|
| ROBERT BENNETT | 10/26/2017 |
| ALDO ADRIAZOLA | 10/25/2017 |
| MITCHELL HARVEY FUCHS | 10/20/2017 |
| BRANDON PIMM | 10/24/2017 |
| FARHAD BARZEGAR | 10/23/2017 |
| IRWIN GERSZBERG | 10/23/2017 |
| DONALD J. BARNICKEL | 10/26/2017 |
| THOMAS M. WILLIS III | 10/24/2017 |

RECEIVING PARTY DATA

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

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 15821164 |

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.

Email: docketing@ggip.com

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

Address Line 1: ROOM 2A-207
Address Line 2: ONE AT&T WAY

Address Line 4: BEDMINSTER, NEW JERSEY 07921

| ATTORNEY DOCKET NUMBER: | 7785-1181-04 |
|-------------------------|-------------------|
| NAME OF SUBMITTER: | MELISSA EICHTEN |
| SIGNATURE: | /Melissa Eichten/ |

PATENT 504667385 REEL: 044275 FRAME: 0687

| DATE SIGNED: | 12/01/2017 |
|-------------------------------------|-----------------|
| Total Attachments: 10 | |
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| source=7785-1181-04_Executed Assign | ment#page10.tif |

PATENT REEL: 044275 FRAME: 0688

ASSIGNMENT

WHEREAS We, ROBERT BENNETT, residing at 1540 North Bayview Rd EXT, Southold, NY 11971, and ALDO ADRIAZOLA, residing at 212 Lamington Rd, Branchburg, NJ 08876, and MITCHELL HARVEY FUCHS, residing at 2206 OLD CHURCH ROAD, Toms River, NJ 08753, and BRANDON PIMM, residing at 6 Merion Dr, Manalapan, NJ 07726, and FARHAD BARZEGAR, residing at 14 Farrington Lane, Branchburg, NJ 08876, and IRWIN GERSZBERG, residing at 12 Dickinson Road, Kendall Park, NJ 08824, and PAUL SHALA HENRY, residing at 7 Crow Field Lane, Holmdel, NJ 07733, and DONALD J. BARNICKEL, residing at 3 Wells Road, Flemington, NJ 08822, and THOMAS M. WILLIS III, residing at 10 Beverly Court, Tinton Falls, NJ 07724, hereinafter referred to as Assignor, am listed as an inventor on a patent application entitled TRANSMISSION MEDIUM AND METHODS FOR USE THEREWITH; having AT&T Docket No. 2015-0207 CIP1, US Patent Application Serial no. 15/821164, for a full description of which reference is here made to an application for Letters Patent 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 L of 11

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 26 day of CCT, 2017. ROBERT BENNETT |
|--|
| State of New Susy) County of Monmoreth |
| On this May of Octobee , 2017, before me a Notary Public in and |
| for the above County and State, personally appeared Robert Bennett, 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 |

| IN TESTIMONY WHEREOF, I have hereunto set my hand this 25th day of October, 2017. |
|--|
| ALDO ADRIAZOLA |
| State of Augustus State of Aug |
| County of Monmonth |
| On this Slay of October, 2017, before me a Notary Public in and |
| for the above County and State, personally appeared |
| Aldo Adriazela, and acknowledged the execution of the foregoing |
| assignment as his/her free act and deed for the purpose herein set forth. |
| |
| MANCY A. HENDERSON NOTARY PUBLIC OF NEW JERSEY |
| Notary Public My Commission Expires: My Commission Expires 12/1/2020 |

| IN TESTIMONY WHEREOF, I have hereunto set my hand this 20 day of CC-lobel 2017. MITCHELL HARVEY FUCHS |
|---|
| State of New Slisey County of Monmonth |
| On this 20 day of October, 2017, before me a Notary Public in and |
| for the above County and State, personally appeared Michell Horvley Fuchs, 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 |

| IN TESTIMONY WHEREOF, I have hereunto set my hand this $\frac{24}{200}$ day of $\frac{0ctoser}{2017}$. |
|---|
| BRANDON PIMM |
| State of Now Sersey County of Monmon 4R |
| On this 24 day of Octobee , 2017, before me a Notary Public in and |
| for the above County and State, personally appeared and acknowledged the execution of the foregoing |
| assignment as his/her free act and deed for the purpose herein set forth. |
| Motary 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 my hand this 23 day of October, 2017. The set of the set |
|--|
| State of New Suzey County of Monmon 46 |
| On this 23 day of October, 2017, before me a Notary Public in and |
| for the above County and State, personally appeared 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: My Commission Expires 12/1/2020 |

| IN TESTIMONY WHEREOF, I have hereunto set my hand this 23 day of oct, 2017. |
|--|
| IRWINGERSZBERG |
| State of New Sersey County of Monmore 48 |
| On this 23 day of October, 2017, before me a Notary Public in and |
| for the above County and State, personally appeared The Alexander |
| NANCY A. HENDERSON NOTARY PUBLIC OF NEW JERSEY Comm. # 50027401 My Commission Expires: My Commission Expires 12/1/2020 |

IN TESTIMONY WHEREOF, I have hereunto set my hand this Z6 day of DEBER, 2017.

Low DONALD J. BARNICKEL

State of Monauth

On this De day of October. 2017, before me a Notary Public in and for the above County and State, personally appeared

Donald J. Barnickel 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 12/1/2020

| IN TESTIMONY WHEREOF, I have hereunto set my hand this 24: THOMAS M. WII | M Welly III |
|--|--|
| State of Monmon (40) County of Monmon (40) | |
| On this Hay of Octobee, 2017, | before me a Notary Public in and |
| for the above County and State, personally appeared Thomas M Willis III, and acknowledge | ged the execution of the foregoin |
| assignment as his/her free act and deed for the purpose herein set fortl | |
| Notary Public My Commission Expires: | NANCY A. HENDERSON DTARY PUBLIC OF NEW JERSEY Comm. # 50027401 y Commission Expires 12/1/2020 |