506373347 11/25/2020

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6420103

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	

CONVEYING PARTY DATA

Name	Execution Date
JEFFREY B. SAXON	11/20/2020
BRIAN LOIS	11/24/2020
ABHAY DABHOLKAR	11/24/2020
MUHAMMAD FAROOQ SABIR	11/25/2020

RECEIVING PARTY DATA

Name:	AT&T INTELLECTUAL PROPERTY I, L.P.		
Street Address:	754 PEACHTREE ST. NE		
Internal Address:	SUITE 7C		
City:	ATLANTA		
State/Country:	GEORGIA		
Postal Code:	30308		

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	17104759

CORRESPONDENCE DATA

Fax Number: (216)696-8731

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: 2166968730

Email: epas@thepatentattorneys.com

Correspondent Name: AT&T LEGAL DEPARTMENT - AT&W

Address Line 1: ONE AT&T WAY Address Line 2: ROOM 2A 212

Address Line 4: BEDMINSTER, NEW JERSEY 07921

Table Alleghanesia O		
DATE SIGNED:	11/25/2020	
SIGNATURE:	/Richard Bradley Almon/	
NAME OF SUBMITTER:	RICHARD BRADLEY ALMON	
ATTORNEY DOCKET NUMBER:	2019-1099/ATTWP1468US	

Total Attachments: 8

PATENT REEL: 054470 FRAME: 0577

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PATENT REEL: 054470 FRAME: 0578

WHEREAS I/we, Jeffrey B. Saxon residing at 25 Larkspur Dr., Rockwall, TX 75087 hereafter referred to as Assignor, am listed as an inventor on a patent application entitled "MODELING RADIO WAVE PROPAGATION IN A FIFTH GENERATION (5G) OR OTHER NEXT GENERATION NETWORK," having AT&T Docket No. 2019-1099, the patent application filed in the United States Patent & Trademark Office on 25-NOV-2020 and assigned U.S. Patent Application Serial no. 17/104,759 (I/we hereby authorize and request Assignee (defined below) or any agent or attorney of Assignee to insert the filing date and application number above when known, and any further identification information, if required); and

WHEREAS, AT&T INTELLECTUAL PROPERTY I, L.P., a Partnership organized and existing under the laws of Nevada and having an address at 754 Peachtree St. NE, Suite 7C, 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, in accordance with any employment-related or contracting agreement and in consideration of the sum of Ten Dollars (\$10,00) and/or other good and valuable consideration, including, without limitation, any patent awards received for such invention, employment-related benefits, and/or continued employment, the receipt and sufficiency of which from Assignee is hereby acknowledged and so agreed, I/we, 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/we 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/we HEREBY covenant that I/we have the full right to convey the interest assigned by this Assignment, and I/we have not executed and will not execute any assignment, sale, license, agreement, or encumbrance in conflict with this Assignment;

AND, I/we HEREBY further covenant and agree, for the Assignor and the Assignor's legal representatives, that I/we 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,

Page 1 of 2

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/we 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/we have hereunto set my hand this 20 day of 1/60 ca 60

20 QC

Jeffrey B. Saxon

State of ZZXA=

County of TXYCA

On this 2e day of A DONE 2070, before me a Notary Public in and for the above County and State, personally appeared Annual and for the foregoing assignment as his/her free act and deed for the purpose herein set forth.

Notary Public

My Commission Expires: 5/21/8-25

WHEREAS I/we, Brian Lois residing at 8415 Falconet Cir, McKinney, TX 75072 hereafter referred to as Assignor, am listed as an inventor on a patent application entitled "MODELING RADIO WAVE PROPAGATION IN A FIFTH GENERATION (5G) OR OTHER NEXT GENERATION NETWORK," having AT&T Docket No. 2019-1099, the patent application filed in the United States Patent & Trademark Office on 25-NOV-2020 and assigned U.S. Patent Application Serial no. 17/104,759 (I/we hereby authorize and request Assignee (defined below) or any agent or attorney of Assignee to insert the filing date and application number above when known, and any further identification information, if required); and

WHEREAS, AT&T INTELLECTUAL PROPERTY I, L.P., a Partnership organized and existing under the laws of Nevada and having an address at 754 Peachtree St. NE, Suite 7C, 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, in accordance with any employment-related or contracting agreement and in consideration of the sum of Ten Dollars (\$10.00) and/or other good and valuable consideration, including, without limitation, any patent awards received for such invention, employment-related benefits, and/or continued employment, the receipt and sufficiency of which from Assignee is hereby acknowledged and so agreed, I/we, 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/we 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/we HEREBY covenant that I/we have the full right to convey the interest assigned by this Assignment, and I/we have not executed and will not execute any assignment, sale, license, agreement, or encumbrance in conflict with this Assignment;

AND, I/we HEREBY further covenant and agree, for the Assignor and the Assignor's legal representatives, that I/we 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,

Page 1 of 2

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/we 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/we have hereunto set my hand this 24 day of 16 vember 2020

Brian Lois

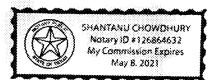
State of TEXAS

County of _ WUIN

On this 24 day of 16 vember , 2020, 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.

Notary Public

My Commission Expires: May 8 1/2021



WHEREAS I/we, **Abhay Dabholkar** residing at **515 Duke Ct, Allen, TX 75013** hereafter referred to as Assignor, am listed as an inventor on a patent application entitled "MODELING RADIO WAVE PROPAGATION IN A FIFTH GENERATION (5G) OR OTHER NEXT GENERATION NETWORK," having AT&T Docket No. **2019-1099**, the patent application filed in the United States Patent & Trademark Office on <u>25-NOV-2020</u> and assigned U.S. Patent Application Serial no. <u>17/104,759</u> (I/we hereby authorize and request Assignee (defined below) or any agent or attorney of Assignee to insert the filing date and application number above when known, and any further identification information, if required); and

WHEREAS, **AT&T INTELLECTUAL PROPERTY I, L.P.**, a Partnership organized and existing under the laws of Nevada and having an address at 754 Peachtree St. NE, Suite 7C, 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, in accordance with any employment-related or contracting agreement and in consideration of the sum of Ten Dollars (\$10.00) and/or other good and valuable consideration, including, without limitation, any patent awards received for such invention, employment-related benefits, and/or continued employment, the receipt and sufficiency of which from Assignee is hereby acknowledged and so agreed, I/we, 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/we 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/we HEREBY covenant that I/we have the full right to convey the interest assigned by this Assignment, and I/we have not executed and will not execute any assignment, sale, license, agreement, or encumbrance in conflict with this Assignment;

AND, I/we HEREBY further covenant and agree, for the Assignor and the Assignor's legal representatives, that I/we 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,

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IN TESTIMONY WHEREOF, I we have bereamle set my hand this 24th day of Nov 2020 100

Abbay Dabholkar

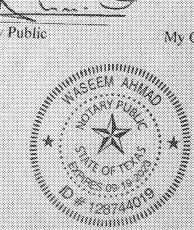
State of Zexex

County of Collis

On this χU day of $|N_{d}U| = 20D$, before me a Notary Public in and for the above County and State, personally appeared |U|, and acknowledged the execution of the foregoing assignment as his/her free act and deed for the purpose herein set torth.

Notary Public

My Commission Expires 04/14/2023



WHEREAS I/we, **Muhammad Farooq Sabir** residing at **1602 Alamosa Drive**, **Allen**, **TX 75013** hereafter referred to as Assignor, am listed as an inventor on a patent application entitled "MODELING RADIO WAVE PROPAGATION IN A FIFTH GENERATION (5G) OR OTHER NEXT GENERATION NETWORK," having AT&T Docket No. **2019-1099**, the patent application filed in the United States Patent & Trademark Office on <u>25-NOV-2020</u> and assigned U.S. Patent Application Serial no. <u>17/104,759</u> (I/we hereby authorize and request Assignee (defined below) or any agent or attorney of Assignee to insert the filing date and application number above when known, and any further identification information, if required); and

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AND, I/we HEREBY further covenant and agree, for the Assignor and the Assignor's legal representatives, that I/we 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,

AND THE RESERVE CONTRACTOR OF THE PROPERTY LEEP CONTRACTOR OF

Muhammad Farong Natur

Seate of Contract

Court of Court

Notary Public

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