505256190 12/28/2018

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
YONGHUI TONG	06/12/2018
WEN YANG	06/09/2018
YUPENG JIA	06/05/2018
MARC B. GRANT	06/22/2018

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:	15971562

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: 216-696-8730

Email: epas@thepatentattorneys.com **Correspondent Name:** AMIN, TUROCY & WATSON, LLP

Address Line 1: 200 PARK AVENUE

Address Line 2: SUITE 300

Address Line 4: BEACHWOOD, OHIO 44122

ATTORNEY DOCKET NUMBER:	2018-0394/ATTWP1021US
NAME OF SUBMITTER:	THOMAS E. WATSON
SIGNATURE:	/THOMAS E. WATSON/
DATE SIGNED:	12/28/2018
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Total Attachments: 8

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ASSIGNMENT

WHEREAS I, Yonghui Tong residing at 400 Park Creek Dr., Alpharetta, GA 30005, USA, hereafter referred to as Assignor, am listed as an inventor on a patent application entitled "Carrier Aggregation and Dual Connectivity Capability Exchange," having AT&T Docket No. 2018-0394, the patent application to be filed in the United States Patent & Trademark Office or which was filed as U.S. Patent Application Serial No. 15/971,562 on May 4, 2018; and

WHEREAS, AT&T INTELLECTUAL PROPERTY I, L.P., a Partnership organized and existing under the laws of Georgia 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;

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.

application number of said application wh	
20 / X IN TESTIMONY WHEREOF, I h	have hereunto set my hand this Athan day of June,
20 <u>, </u>	Yonghui Yong
State of Georgia)	
County of Dekalb	
7 1 1	O 18', before me a Notary Public in and for the above County, and
herein set forth.	ing assignment as his/her free act and deed for the purpose
Leslis Coleveaux Chis tier	_
Notary Public My Commission 1	Expires: August 6th 2021

Page 2 of 2

ASSIGNMENT

WHEREAS I, Wen Yang residing at 5703 110Th Ave Se, Bellevue, WA 98006, USA, hereafter referred to as Assignor, am listed as an inventor on a patent application entitled "Carrier Aggregation and Dual Connectivity Capability Exchange," having AT&T Docket No. 2018-0394, the patent application to be filed in the United States Patent & Trademark Office or which was filed as U.S. Patent Application Serial No. 15/971,562 on May 4, 2018; and

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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;

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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

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I hereby authorize and request Amin, Turocy & Watson, LLP to insert the filing date and application number of said application when known.

2018. IN TESTIMONY WHEREOF, I have hereunto set my hand this 20^{18} .	lay of June,
Wen Yang	
State of Washington)	
County of king	
On this Hday of June, 20 18, before me a Notary Public in and	l for the above County
and State, personally appeared	, and
acknowledged the execution of the foregoing assignment as his/her free act and d herein set forth.	leed for the purpose
J. Plance	JIE Y ŁAPLANTE
Notary Public	Notary Public
My Commission Expires: Jan. 6, 2022	State of Washington My Appointment Expires Jan 6, 2022

Page 2 of 2

ASSIGNMENT

WHEREAS I, Yupeng Jia residing at 3906 Tilley Street, Austin, TX 78723, USA, hereafter referred to as Assignor, am listed as an inventor on a patent application entitled "Carrier Aggregation and Dual Connectivity Capability Exchange," having AT&T Docket No. 2018-0394, the patent application to be filed in the United States Patent & Trademark Office or which was filed as U.S. Patent Application Serial No. 15/971,562 on May 4, 2018; and

WHEREAS, AT&T INTELLECTUAL PROPERTY I, L.P., a Partnership organized and existing under the laws of Georgia 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;

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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

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I hereby authorize and request Amin, Turocy & Watson, LLP to insert the filing date and application number of said application when known.

	OF, I have hereunto set my hand this 5 day of June
20_18	Yupeng Jia
	Y upeng Jia
State of Texas	, •
County of Travis	
On this S'day of Sungared	, 20 18, before me a Notary Public in and for the above County
acknowledged the execution of the	foregoing assignment as his/her free act and deed for the purpose
herein set forth.	
Umy R Norman	
North and British	V 30 - 30
My Comm	ission Expires: 8-10-20
	AMY R NORMAN Notary Public, State of Texas
	Notary Public, State of Texas

Page 2 of 2

Docket No. 2018-0394

ASSIGNMENT

WHEREAS I, Marc B. Grant residing at 10208 Jacksboro Trail, Austin, TX 78717, USA, hereafter referred to as Assignor, am listed as an inventor on a patent application entitled "Carrier Aggregation and Dual Connectivity Capability Exchange," having AT&T Docket No. 2018-0394, the patent application to be filed in the United States Patent & Trademark Office or which was filed as U.S. Patent Application Serial No. 15/971,562 on May 4, 2018; and

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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.

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I hereby authorize and request Amin, Turocy & Watson, LLP to insert the filing date and application number of said application when known.

20 18. IN TESTIMONY WHEREOF, I have hereunto set my hand this 2 2 day of 100 E Marc 18. Grant
State of Texas
County of Travis
On this 2 day of
Notary Public My Commission Expires: 8-10-20
AMY R NORMAN Notary Public, State of Texas Comm. Expires 08-10-2020

Page 2 of 2

PATENT REEL: 047869 FRAME: 0787

RECORDED: 12/28/2018