505033184 08/02/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5079935

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ADITYA CHOPRA	07/31/2018
ARUNABHA GHOSH	07/31/2018
THOMAS NOVLAN	07/27/2018
ANDREW THORNBURG	07/31/2018
XIAOYI WANG	07/31/2018
RALF BENDLIN	08/02/2018

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:	16052975

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: 127 PUBLIC SQUARE

Address Line 2: 57TH FLOOR, KEY TOWER
Address Line 4: CLEVELAND, OHIO 44114

ATTORNEY DOCKET NUMBER:	2018-0560 / ATTWP1056US
NAME OF SUBMITTER:	PHILIP AMMAR/
SIGNATURE:	/Philip Ammar/
DATE SIGNED:	08/02/2018

Total Attachments: 12 source=2018-0560_Assignments#page1.tif source=2018-0560_Assignments#page2.tif source=2018-0560_Assignments#page3.tif source=2018-0560_Assignments#page4.tif source=2018-0560_Assignments#page5.tif source=2018-0560_Assignments#page6.tif source=2018-0560_Assignments#page7.tif source=2018-0560_Assignments#page8.tif source=2018-0560_Assignments#page9.tif source=2018-0560_Assignments#page10.tif source=2018-0560_Assignments#page11.tif source=2018-0560_Assignments#page12.tif

ASSIGNMENT

WHEREAS I, Aditya Chopra residing at 4308 Avenue D, Austin, TX 78751, hereafter referre	d
to as Assignor, am listed as an inventor on a patent application entitled "POWER CONTROL"	
ENHANCEMENTS FOR MULTI-HOP INTEGRATED ACCESS AND BACKHAUL,"	
having AT&T Docket No. 2018-0560, the patent application to be filed in the United States Patent &	
Trademark Office or which was filed as U.S. Patent Application Serial Noon -	

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, THEREBY 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

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.

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

IN TESTIMONY WHEREOF, I have 20 14.	the hereunto $\sqrt{3}$ my band this 31 day of $\sqrt{3}$
and the second s	Aditya Chopra
State of Texas	
County of Traves	
On this 3/2 day of 5/4	Lefore me a Notary Public in and for the above Count
acknowledged the execution of the foregoing herein set forth.	assignment as his/her free act and deed for the purpose
Umy K. Norman	
Notady Public My Commission Exp	pires: <u>8-10 20</u>
	ALAV E NOFMAN

Page 2 of 2

Docket No. 2018-0560

ASSIGNMENT

WHEREAS I, Arunabha Ghosh residing at 9805 Bundoran Dr., Austin, TX 78717	, hereafter
referred to as Assignor, am listed as an inventor on a patent application entitled "POWER C	ONTROL
ENHANCEMENTS FOR MULTI-HOP INTEGRATED ACCESS AND BACKH	AUL,"
having AT&T Docket No. 2018-0560, the patent application to be filed in the United States Pa	atent &
Trademark Office or which was filed as U.S. Patent Application Serial No.	on -

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;

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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

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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.

IN TESTIMONY WHERE 20 18.	OF, I have hereunto seveny ha Arunabha Gho	ls / T
State of <u>16x4.5</u>)		
County of Iravis	I	
On this 31 day of 1 d	2018, before me a Nota Acurebha Chosh foregoing assignment as his/h	ry Public in and for the above County, and er free act and deed for the purpose
amu R. Noman		
Notary Public My Comm	tission Expires: 8-10 2	<u></u>
	Page 2 of 2	AMY R NORMAN Notary Public, State of Terras Comm. Expires 08.10-2020 Notary ID 12023641

ASSIGNMENT

WHEREAS I, Thomas Novlan residing at 1304 Northridge Dr., Austin, TX 7872	3, hereafter
referred to as Assignor, am listed as an inventor on a patent application entitled "POWER	CONTROL
ENHANCEMENTS FOR MULTI-HOP INTEGRATED ACCESS AND BACK	HAUL."
having AT&T Docket No. 2018-0560, the patent application to be filed in the United States	
Trademark Office or which was filed as U.S. Patent Application Serial No.	on -
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 în 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

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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 17. IN TESTIMONY WHEREOF, I have hereunto set my hand this 27 day of 3014.
Thomas Novlan
State of <u>Texas</u>)
County of Jan S
On this 2 day of
acknowledged the execution of the foregoing assignment as his/her free act and deed for the purpose herein set forth.
Any R. Aorran Notary Public
Notary Hublic 12 10 - 20
My Commission Expires: 8-10-20
AMY R NORMAN Notary Public, State of Texas

PATENT

REEL: 046537 FRAME: 0636

Docket No. 2018-0560

ASSIGNMENT

WHEREAS I, Andrew Thornburg residing at 5704 Bull Creek Rd., Austin, TX 78756,
hereafter referred to as Assignor, am listed as an inventor on a patent application entitled "POWER
CONTROL ENHANCEMENTS FOR MULTI-HOP INTEGRATED ACCESS AND
BACKHAUL," having AT&T Docket No. 2018-0560, the patent application to be filed in the United
States Patent & Trademark Office or which was filed as U.S. Patent Application Serial No
on; 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

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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.

IN TESTIMON	Y WHEREOF, I have hereunto set my hand this day of,
20 <u>/</u> 8.	The second secon
	Andrew Thornburg
State of Texis)
County of Travis	
and state, personally app	2018, before me a Notary Public in and for the above County beared 1801 1801 for hours free act and deed for the purpose
herein set forth.	tion of the foregoing assignment as mostice free act and acca for the purpose
am R. Roma	~
Notary Public	89 mil 10 2 2 2 2
	My Commission Expires: 20
	AMY R NORMAN Notary Public, State of Texas

Page 2 of 2

ASSIGNMENT

WHEREAS I, Xiaoyi Wang residing at 11300 Pachea Trail, Austin, TX 78726 hereafter
referred to as Assignor, am listed as an inventor on a patent application entitled "POWER CONTROL
ENHANCEMENTS FOR MULTI-HOP INTEGRATED ACCESS AND BACKHAUL."
having AT&T Docket No. 2018-0560, the patent application to be filed in the United States Patent &
Trademark Office or which was filed as U.S. Patent Application Serial Noon -
<u>na na n</u>

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;

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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

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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.

IN TESTIMONY WHEREO	OF, I have hereunto set my hand this 35 day of
	Xlaoyi Wang
State of 1exa5	
County of Travis	
On this 31s day of 30 y and State, personally appeared acknowledged the execution of the f herein set forth.	2018, before me a Notary Public in and for the above County, and oregoing assignment as his/her free act and deed for the purpose
Amuk Morman Notary Public My Commis	ssion Expires: <u>8-10-20</u>
	AMY R NORMAN Notary Public, State of Texas

Page 2 of 2

Docket No. 2018-0560

ASSIGNMENT

WHEREAS I, Ralf Bendlin residing at 108 Shetland Ln., Cedar Park, TX 78613, hereaf	ter
referred to as Assignor, am listed as an inventor on a patent application entitled "POWER CONT	ROL
ENHANCEMENTS FOR MULTI-HOP INTEGRATED ACCESS AND BACKHAUL	"
having AT&T Docket No. 2018-0560, the patent application to be filed in the United States Patent &	&
Trademark Office or which was filed as U.S. Patent Application Serial No on -	
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:

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IN TESTIMONY WHEREOF, I have hereunto set my hand this 2 day of August.
State of IEXGS
County of Travis
On this 20 day of 10 day o
acknowledged the execution of the foregoing assignment as his/her free act and deed for the purpose
herein set forth.
Ang R. Norman
Notary Public
My Commission Expires: X - 10 - 20
AMY R NORMAN SOLA SE Notary Public State of Texas

Page 2 of 2

AMY R NORMAN
A Notary Public, State of Taxas
Comm. Expires 08-10-2020
Notary ID 12023641

PATENT REEL: 046537 FRAME: 0642

RECORDED: 08/02/2018