# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4857402

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
BO HAN	02/13/2018
VIJAY GOPALAKRISHNAN	02/20/2018
JACKSON JARRELL PAIR	02/15/2018
VIKASH SHARMA	02/19/2018

### **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:	15901609

## **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

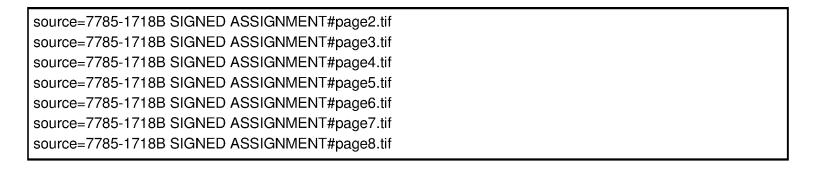
ATTORNEY DOCKET NUMBER:	7785-1718B
NAME OF SUBMITTER:	JENNIFER SWANSON
SIGNATURE:	/Jennifer Swanson/
DATE SIGNED:	03/08/2018

**Total Attachments: 8** 

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PATENT REEL: 045145 FRAME: 0653

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PATENT REEL: 045145 FRAME: 0654

#### ASSIGNMENT

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;

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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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 ha	ve hereunto set my hand this 13 day of February, 2018.
	Borfan
	BO HAN
State of New Jersey )	
County of Somerset	
On this 13 day of	February , 2018, before me a Notary Public in and
for the above County and State, per	sonally appeared
Bo Han	, and acknowledged the execution of the foregoing
assignment as his/her free act and d	eed for the purpose herein set forth.
Richard S. Jee	RICHARD SCIPE NOTARY PUBLIC OF NEW JERGER ID # 2439861 My Commission Expires 10/22/2018
Notary Public	My Commission Expires:

IN TESTIMONY WHEREOF, I have hereunto set my hand this 20 day of February 2018.  VIJAY GOPALAKRISHNAN
State of New Jersey  County of Somerset
County of Somersel
On this 20 day of February, 2018, before me a Notary Public in and
for the above County and State, personally appeared
Yjay Gopalaknshnan, and acknowledged the execution of the foregoing
assignment as his/her free act and deed for the purpose herein set forth.
RICHARD SETO YEE  NOTARY PUBLIC OF NEW JERSEY  ID # 2439861  My Commission Expres 1022/2018
Notary Public My Commission Expires:

IN TESTIMONY WHEREOF, I have bereun	ito set my had	nd this Stay of February, 2018.  ON JARRELL PAIR
State of California		
County of	):	
On before m	e.	
(insert name and title of the officer)	- r	
personally appeared	y evidence to nowledged to at by his/her/i	the the person(s) whose name(s) is/are me that he/she/they executed the same in their signature(s) on the instrument the
I certify under PENALTY OF PERJURY un paragraph is true and correct.	der the laws	of the State of California that the foregoing
WITNESS my hand and official seal.		PLEASE SEE THE ATTACHED UPBATED
Signature	(Seal)	NOTARIAL CERTIFICATE



# **ACKNOWLEDGMENT**

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

validity of that document.	
State of California County ofLOS ANGELES)	
On FERRUARY 15, 18 before me, ARGELIA (insert)	ORTIZ NOTARY PUBLIC
(insert r	name and title of the officer)
personally appeared JACKSON JARRELL	PAIR =
who proved to me on the basis of satisfactory evidence to be subscribed to the within instrument and acknowledged to make his/her/their authorized capacity(les), and that by his/her/the person(s), or the entity upon behalf of which the person(s) and the person(s) are	of the person(s) whose name(s) is/are se that he/she/the/y executed the same in fir signature(s) on the instrument the
I certify under PENALTY OF PERJURY under the laws of till paragraph is true and correct.	he State of California that the foregoing
WITNESS my hand and official seal.  Signature (Seal)	ARGELIA ORTIZ  Notary Public - California  Los Angeles County  Commission # 2166818  My Comm. Expires Nov 2, 2020

PATENT REEL: 045145 FRAME: 0660

IN TESTIMONY WHEREOF, I have	hereunto set my hand this 19th day of February 2018.
	VIKASH SHARMA
State of California	
County of	
On bef	ore me.
(insert name and title of the officer)	Jan
personally appeared	
subscribed to the within instrument and his/her/their authorized capacity(ies)/a	factory evidence to be the person(s) whose name(s) is/are discknowledged to me that he/she/they executed the same in and that by his/her/their signature(s) on the instrument the which the person(s) acted, executed the instrument.
I certify under PENALTY OF PERJUI paragraph is true and correct.	RY under the laws of the State of California that the foregoing
WITNESS my Mand and official seal.	See Alfached
Signature	(Seal)

A notary public or other officer completing this certificate document to which this certificate is attached, and not the	ate verifies only the identity of the individual who signed the he truthfulness, accuracy, or validity of that document.
State of California ( )	
County of Cos Araeles	Here Insert Name and Title of the Officer
a 12 day 19 2018	at F Stiled Ned Dilli
On <u>revyway 11,516</u> before me, <u>55</u>	Word Incort Name and Title of the Office
Vikash Sharman	riere misertivame and rive of the Omicer
personally appeared	Name(s) of Signer(s)
	Name(a) or digitally
subscribed to the within instrument and acknow	evidence to be the person(s) whose name(s) is/are ledged to me that he/she/they executed the same in is/her/their signature(s) on the instrument the person(s), sted, executed the instrument.
	I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.
Inspergengengengengengengengengengengengengeng	
JANET E. SHIBATA	WITNESS my hand and official seal.
Notary Public - California	WITNESS my hand and official seal.
Notary Public - California Los Angeles County Commission # 2173842	July 5.7.1
Notary Public - California Los Angeles County	Signature Signature of Notary Public
Notary Public - California Los Angeles County Commission # 2173842 My Comm. Expires Nov 26, 2020  Place Notary Seal Above  Though this section is optional, completing this	Signature Jute Suileta
Notary Public - California Los Angeles County Commission # 2173842 My Comm. Expires Nov 26, 2020  Place Notary Seal Above  Though this section is optional, completing this fraudulent reattachment of this	Signature of Notary Public  TIONAL  Information can deter alteration of the document or a form to an unintended document.
Place Notary Seal Above  Place Notary Seal Above  Though this section is optional, completing this fraudulent reattachment of this  Description of Attached Document  Title or Type of Document Parent Sistems	Signature Of Notary Public  TIONAL  Information can deter alteration of the document or a form to an uniritended document.
Place Notary Seal Above  Place Notary Seal Above  Though this section is optional, completing this fraudulent reattachment of this Description of Attached Document Title or Type of Document: Parent Assignment Number of Pages: Six Signer(s) Other Tha	Signature Of Notary Public  TIONAL  Information can deter alteration of the document or a form to an uniritended document.
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Place Notary Seal Above  Place Notary Seal Above  Though this section is optional, completing this fraudulent reattachment of this Description of Attached Document Title or Type of Document: Yatest Assignment Number of Pages: Signer(s) Other That Capacity(ies) Claimed by Signer(s) Signer's Name: Yas Sharma Corporate Officer — Title(s): Partner — Climited Ceneral	Signature of Notary Public  TIONAL Information can deter alteration of the document or soform to an unintended document.  ewt Document Date: In Named Above: Botton, Vijay Gopalstrichw Javrell Signer's Name: Individual In

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PATENT REEL: 045145 FRAME: 0662

**RECORDED: 03/08/2018**