504188937 01/20/2017

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
KEN LIU	01/05/2017
HAROLD RAPPAPORT	01/06/2017
FARHAD BARZEGAR	01/05/2017
IRWIN GERSZBERG	01/04/2017
DONALD J. BARNICKEL	01/05/2017
PAMELA A.M. BOGDAN	01/05/2017
PAUL SHALA HENRY	01/04/2017
THOMAS M. WILLIS III	01/05/2017
ROBERT BENNETT	01/05/2017

RECEIVING PARTY DATA

Name:	AT&T Intellectual Property I, LP
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:	15370614

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

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

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

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ATTORNEY DOCKET NUMBER: 2016-0770_7785-1546

> **PATENT REEL: 041028 FRAME: 0326**

504188937

NAME OF SUBMITTER:	ED GUNTIN	
SIGNATURE:	/Ed Guntin/	
DATE SIGNED:	01/20/2017	
Total Attachments: 11		
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PATENT REEL: 041028 FRAME: 0327

ASSIGNMENT

WHEREAS We, KEN LIU, residing at 1087 New Dover Road, Edison, NJ 08820, and HAROLD RAPPAPORT, residing at 305 Royal Court, Middletown, NJ 07748, and FARHAD BARZEGAR, residing at 14 Farrington Lane, Branchburg, NJ 08876, and IRWIN GERSZBERG, residing at 12 Dickinson Road, Kendall Park, NJ 08824, and DONALD J. BARNICKEL, residing at 3 Wells Road, Flemington, NJ 08822, and PAMELA A. M. BOGDAN, residing at 7 Hampton Court, Neptune, NJ 07753, and PAUL SHALA HENRY, residing at 7 Crow Field Lane, Holmdel, NJ 07733, and THOMAS M. WILLIS III, residing at 10 Beverly Court, Tinton Falls, NJ 07724, and ROBERT BENNETT, residing at 1540 North Bayview Rd EXT, Southold, NY 11971, hereinafter referred to as Assignor, are listed as inventors on a patent application entitled WAVEGUIDE SYSTEM WITH DEVICE-BASED AUTHENTICATION AND METHODS I OR USE THEREWITH; having AT&T Docket No. 2016-0770, US Patent Application Serial no. 15/370.614 _______, 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 world in and to said invention and the patent application identified above, including any and all divisions and continual ons 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 reexaming ons 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 all for this invention in any foreign country and all Letters Patent which may be granted on this invention in any foreign country, governmental grants or issuances; and all extensions, renewals, prolongations, and reissues thereof; to have and to hold for the 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 Fatent 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 II are not executed and will not execute any assignment, sale, license, agreement, or encumbrance in conflict with this Assigner 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.

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.

Page 2 of 11

IN TESTIMONY WHEREOF, I have hereunto set my hand this KEN LIU	day of January , 2018.
State of New Sersey)	
County of Monmonth	
On this 5 day of Sanuary.	2016, before me a Notary Public in and
for the above County and State, personally appeared	ran /
Jan 1 in .	wledged the execution of the foregoing
assignment as his/her free act and deed for the purpose herein se	
service as morner are are and according purpose nerein se	et forth.
Clances a Henderson	NANCY A. HENDERSON NOTARY PUBLIC OF NEW JERSEY
Notary Public My Commission Expires:	I.D. # 50027401 My Commission Expires 12/1/2020
TVIVI DIBBINGCIAN EVATOR	**** *********************************

IN TESTIMONY WHEREOF, I	have hereunto set my hand the	Resign
State of May Sersey)	
County of Monnowth	_)	
		7 016, before me a Notary Public in and
for the above County and State, p		wledged the execution of the foregoing
assignment as his/her free act and	deed for the purpose herein set	t forth.
Janney O. Llenderson		NANCY A. HENDERSON NOTARY PUBLIC OF NEW JERSEY I.D. # 50027401
Notary Public	My Commission Evniras	My Commission Expires 12/1/2020

W. C.		_ K	FB
IN TESTIMONY WHEREOF, I	have hereunto set my hand thi	s 5 day of Janua	ary. 20197
	nanas	Darle	
/	YARHAD BA	ARZEGAN	
State of Alw Surgey)		
County of Mormouth	.)		
On this _5_ day of	Sanuary . 2	before me a Notary	Public in and
for the above County and State, pe	ersonally appeared	cos,	
Farhad Barzeg		wledged the execution of	the foregoing
assignment as his/her free act and			
ancey O. Henderson		NANCY A. HENDE NOTARY PUBLIC OF NEW	V. EDCEV
Notary Public	My Commission Expires:	I.D. # 5002740 My Commission Expires	*

T T	6-
2017	ŗ
IN TESTIMONY WHEREOF, I have hereunto set my hand this 4 day of 5 cm. 2016.	
IRWIN GERSZBERG C	
State of New Sisse)	
County of Monmouth	
On this H day of Sanualy 2018, before me a Notary Public in and	
for the above County and State, personally appeared	
O The state of the rategoring	F >
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	nave hereunto set my hand this 5th day of 1mg	2017 DIB
	Las/ Buniles DONALD J. BARNICKEL	2
State of Alw SUBLY County of Monmonth)	
The state of the s) ,	
On this day of for the above County and State, pe	Sanually appeared 2018, before me a Nota	ary Public in and
Donald's Born	Chol , and acknowledged the execution	of the foregoing
assignment as his/her free act and	deed for the purpose herein set forth.	
Jance Cotlenderson	NANCY A. HEN NOTARY PUBLIC OF I I.D. # 5002	www.ensey
Notary Public	My Commission Expires:	

IN TESTIMONY WHEREOF,	I have hereunto set my hand	this 5 day of Ja	2017 11 mary, 2016.
	Fall PAMELA	A. M. BOGDAN	Paris
State of New Slivel	d)		
County of MonMonth	<u>)</u>		
On this day of for the above County and State,		, 2016, before me a No	otary Public in and
Hamla A.M.B. assignment as his/her free act an	and ack		on of the foregoing
Name all	, ,		
Notary Public	My Commission Expires:	NANCY A. HI NOTARY PUBLIC (I.D. # 500 My Commission E	JF NEW JERSEY

K.

IN TESTIMONY WHEREOF, I have hereunto set my hand this	is John Jan 20163 Mile Ay A HENRY
State of New Sursu)	,
County of Honemouth)	
On this Hay of Sangales.	2018, before me a Notary Public in and
Tor the above County and State, personally appeared	nah
taul Shala Henry, and ackno	wledged the execution of the foregoing
assignment as his/her free act and deed for the purpose herein se	
Manay O. Hendeson	NANCY A. HENDERSON KOTARY PUBLIC OF NEW JERSEY
Notary Public My Commission Expires:	I.D. # 50027401 My Commission Expires 12/1/2020

IN TESTIMONY WHEREOF, I have hereunto set pay hand this Sth. day of January, 2018.

State of Monday

On this D day of January

On the above County and State, personally appeared

Thomas M. WILLIS III

State of Monday

On the above County and State, personally appeared

Thomas M. Willis III

NANCY A. HENDERSON NOTARY PUBLIC OF NEW JERSEY

My Commission Expires:

, Notary Public

I.D. # 50027401 My Commission Expires 12/1/2020

ROBERT B	ENNETT
State of I fle Sersey) County of Monmouth	
On this 5 day of Sanually appeared.	2016, before me a Notary Public in and
assignment as his/her free act and deed for the purpose herein se	owledged the execution of the foregoing et forth.
Notary Public My Commission Expires:	NANCY A. HENDERSON NOTARY PUBLIC OF NEW JERSEY I.D. # 50027401 My Commission Expires 12/1/2020