

## PATENT ASSIGNMENT COVER SHEET

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
BO HAN	05/29/2018
MATTEO VARVELLO	06/01/2018
VIJAY GOPALAKRISHNAN	06/01/2018
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	AT&T INTELLECTUAL PROPERTY I, L.P.
<b>Street Address:</b>	675 W. PEACHTREE STREET
<b>Internal Address:</b>	SUITE 4000
<b>City:</b>	ATLANTA
<b>State/Country:</b>	GEORGIA
<b>Postal Code:</b>	30308
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15995842
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(847)510-0710
<i>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.</i>	
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<b>ATTORNEY DOCKET NUMBER:</b>	7785-1764
<b>NAME OF SUBMITTER:</b>	JENNIFER SWANSON
<b>SIGNATURE:</b>	/Jennifer Swanson/
<b>DATE SIGNED:</b>	06/22/2018
<b>Total Attachments: 5</b>	
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**ASSIGNMENT**

WHEREAS We, **BO HAN**, residing at 15 Killarney Street, Bridgewater, NJ 08807, and **MATTEO VARVELLO**, residing at 7 Robin Road, Holmdel, NJ 07733, and **VIJAY GOPALAKRISHNAN**, residing at 10 Butler Road, Edison, NJ 08820, hereinafter referred to as Assignor, am listed as an inventor on a patent application entitled **FIELD OF VIEW PREDICTION IN LIVE PANORAMIC VIDEO STREAMING**; having AT&T Docket No. 2017-1123, US Patent Application Serial no. 15/995,842, 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 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.

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 have hereunto set my hand this 29 day of May, 2018.

Bo Han  
BO HAN

State of New Jersey )

County of Somerset )

On this 29 day of May, 2018, before me a Notary Public in and for the above County and State, personally appeared Bo Han, and acknowledged the execution of the foregoing assignment as his/her free act and deed for the purpose herein set forth.

Richard S. Yee  
Notary Public

RICHARD SETO YEE  
NOTARY PUBLIC OF NEW JERSEY  
ID # 2433861  
My Commission Expires 10/22/2018

My Commission Expires: \_\_\_\_\_

IN TESTIMONY WHEREOF, I have hereunto set my hand this 01 day of June, 2018.

*Matteo Varvello*  
MATTEO VARVELLO

State of New Jersey )

County of Somerset )

On this 01 day of June, 2018, before me a Notary Public in and for the above County and State, personally appeared Matteo Varvello, 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

RICHARD SETO YEE  
NOTARY PUBLIC OF NEW JERSEY  
ID # 2430861  
My Commission Expires 10/23/2018

My Commission Expires: \_\_\_\_\_

IN TESTIMONY WHEREOF, I have hereunto set my hand this 01 day of June, 2018.

C. Vijay  
**VIJAY GOPALAKRISHNAN**

State of New Jersey )

County of Somerset )

On this 01 day of June, 2018, before me a Notary Public in and for the above County and State, personally appeared Vijay Gopalakrishnan, 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

RICHARD SETO YEE  
NOTARY PUBLIC OF NEW JERSEY  
ID # 2430861  
My Commission Expires: ~~My Commission Expires~~ 10/22/2018