#### 504700972 12/21/2017

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4747694

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
ZHIGUANG ERIC ZHANG	12/15/2017
SAMUEL C. MINDLIN	12/19/2017
OLIVER S. CASTANEDA	12/15/2017
DENNY BREITENFELD	12/20/2017

#### **RECEIVING PARTY DATA**

Name:	VERIZON PATENT AND LICENSING INC.
Street Address:	ONE VERIZON WAY
City:	BASKING RIDGE
State/Country:	NEW JERSEY
Postal Code:	07920

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15851529

#### **CORRESPONDENCE DATA**

Fax Number: (801)812-8129

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.

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**Correspondent Name:** ALG INTELLECTUAL PROPERTY, LLC

10808 S. RIVER FRONT PARKWAY, SUITE 3100 Address Line 1:

Address Line 4: SOUTH JORDAN, UTAH 84095

ATTORNEY DOCKET NUMBER:	20170475
NAME OF SUBMITTER:	TRAVIS K. LAIRD
SIGNATURE:	/TRAVIS K. LAIRD/
DATE SIGNED:	12/21/2017

#### **Total Attachments: 4**

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# **DECLARATION AND ASSIGNMENT**

FUR PATENT APPLICATION
Patent Application Title: Methods and Systems for Simulating Microphone Capture Within a Capture Zone of a Real-World Scene
the patent application for which:  is being filed concurrently herewith, Application Number to be assigned by the USPTO, or  was filed on as United States Application Number or PCT International Application Number
Declaration of Inventor
As the below named inventor, I hereby declare that:
<ul> <li>the above-identified application was made or authorized to be made by me;</li> <li>I believe that I am the original inventor or an original joint inventor of a claimed invention in the above-referenced application; and</li> <li>I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. § 1001 by fine or imprisonment of not more than five (5) years, or both.</li> </ul>
Inventor Assignment Acknowledgement
For good and valuable consideration, the receipt of which is hereby acknowledged, I agree as follows:
A. I hereby assign to the Verizon legal entity identified below ("Assignee"), including its successors and assigns, my entire worldwide right, title and interest in and to any and all inventions and other ideas described in the above-identified patent application, as well as in and to said application and all divisional, continuing (in whole or in part), substitute, renewal, reissue, provisional or other applications or registrations for Letters Patent which have been or shall be filed in the United States and all foreign countries based on any of said inventions or ideas, or based on or claiming priority to said application; and in and to all original and reissued Letters Patent which have been or shall be issued in the United States and foreign countries from any of said applications or registrations; and in and to all rights of priority resulting from the filing of any of said applications or registrations (all collectively, the "Patent Rights"). Letters Patent as used herein shall include, without limitation, patents, utility models, industrial designs, and any other form of industrial property recognized under the Paris Convention for the Protection of Industrial Property.
B. I agree (i) that Assignee may apply for and receive Letters Patent based on the Patent Rights in its own name; (ii) that I will execute all rightful oaths, declarations, assignments, powers of attorney and other papers related to the Patent Rights when requested by Assignee (or its successors and/or assigns) without compensation (but at Assignee's expense),; (iii) that I appoint Assignee (acting through its representatives) as my attorney-in-fact, such appointment being irrevocable and coupled with the interest in the Patent Rights, with full authority in my place and stead and in my name to take any action and to execute any document which Assignee may deem reasonably necessary or advisable to accomplish the purposes of this assignment, including the execution and filing of the papers identified in part (ii) in my name where permitted by law; (iv) to communicate to Assignee, its successors, assigns, representatives and agents, all facts known to me relating to said Patent Rights and the history thereof; and (v) to generally do everything which Assignee, its successors, assigns, representatives or agents shall consider desirable for aiding in securing and maintaining proper protection for said Patent Rights and for vesting title to said Patent Rights in Assignee, its successors and assigns.
C. I covenant with Assignee, its successors and assigns, that no assignment, grant, mortgage, license, or other agreement affecting the Patent Rights has been made to others by me, and that full right to convey the same as set forth herein is possessed by me
ASSIGNEE: Verizon Patent and Licensing Inc., a Delaware Corporation with a place of business at One Verizon Way, Basking Ridge, NJ 07920 US
IN WITNESS to my agreement to the foregoing Declaration of Inventor and Inventor Assignment Acknowledgement, I have executed as set forth below:
Full legal name of Inventor: Zhiguang Eric Zhang
Address: 150 Meroer St apt 5A, Somerville NJ 08876 US  Signature:

### DECLARATION AND ASSIGNMENT FOR PATENT APPLICATION

Patent Application Title: Methods and S Scene	ystems for Simulati	ng Microphone Capi	ore Within a Capture	Zone of a Real-World
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⊠ is being filed concurrently benewith.  □ was filed on as United 5  Number	Aggicania N	anges Anges maliana ay a	e PCT International	Application
***************************************	Declaration o	( Leventer		
As the below manned inventor, I hereby decline the				
<ul> <li>the above-identified application was mad</li> </ul>	e or authorized to b	e much by me:	incomplete to the short	e esternocol
<ul> <li>I believe that I am the original inventor or application; and</li> <li>I largely acknowledge that any willful fall</li> </ul>				
<ul> <li>I hereby action who get that may writted to or improvement of not more than five ()</li> </ul>	) years, or hods.			
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For good and valuable consideration, the receipt o				
A. Thereby assign to the Verizon legal entity ider right, title and interest in and to any and all invent and to said application and all divisional, continui or registrations for Letters Patent which have been inventions or ideas, or based on or claiming prioriti	ions and other ideas ng (in whole or in p n or deall be filed is	described in the ab- arr), substitute, rene s the United States a	ve dentified patent val, ressue provinc val 38 forces const	appication, as well as it makes other applications rate bases on any of each
heen or shall be issued in the United States and so of priority resulting from the filing of any of said used herein shall include, without limitation, pa recognized under the Paris Convention for the Pro	ecupe coessions for applications or reg tents, utility model	e any of said applica intrations (all collects, industrial design	avely, the "Patent R	s, and in and to all rights ights"). Letters Patent as
B. I agree (i) that Assignce may apply for and recall rightful outles, declarations, assignments, power	es ve Letters Patent s of announce y and of	haved on the Parent or payers related to	Region of the same	oc. (ii) that I will coccuse an expected by New York
(or its successors and/or assigns) without compen- representatives) as my attorney-in-fact, such appoint	sation (but at Assi- ntment being irrevi	gnce's expense), (u xable and coupled	<ul> <li>that Lappoint Assemble the interest in the</li> </ul>	signee tacting through its te Patent Rights, with full
authority in my place and stead and in my name to necessary or advisable to accomplish the purposes (ii) in my name where permitted by law; (iv) to co known to my relating to said Facus English and Sh	of this assignment numbers are to Assignment changes thereof, as	including the execu- gate. He successors at 600 to processive	tion and tiling of the Lassigns, representa- to everything schools	e papers identified in part trives and agents, all facts Assignments accesses
assigns, representatives or agents shall consider de and for vesting title to said Patent Rights in Assign			annud brobes brotec	Patent Rights and Patent Rights
C. I covenant with Assignee, its successors and a Patent Rights has been made to others by me, and				
ASSIGNEE: Verizon Patent and Lice Basking Ridge, NJ 07920 US	lic, a Delas	vare Corporation w	ath a place of busin	ess at One Vertzon Way
IN WITNESS to my agreement to the foregoing D as set forth below:	eclaration of Inver	nor and Inventor Ass	signment Acknowle	dgement. I have executed
Full legal name of Inventor: Samuel C. Mindlin				
Address: 376 St. Johns Br Apt. A. Bredklyn, Ny	11238 US			
Summer Dank His W	Date:	12-19-17		

### **DECLARATION AND ASSIGNMENT** FOR PATENT APPLICATION

Patent Application Title: Methods and Systems for Simulating Microphone Capture Within a Capture Zone of a Real-World

Scene
the patent application for which:  is being filed concurrently herewith, Application Number to be assigned by the USPTO, or was filed on as United States Application Number or PCT International Application Number
<u>Declaration of Inventor</u>
As the below named inventor, I hereby declare that:
<ul> <li>the above-identified application was made or authorized to be made by me;</li> <li>I believe that I am the original inventor or an original joint inventor of a claimed invention in the above-referenced application; and</li> <li>I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. § 1001 by fine or imprisonment of not more than five (5) years, or both.</li> </ul>
Inventor Assignment Acknowledgement
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A. I hereby assign to the Verizon legal entity identified below ("Assignee"), including its successors and assigns, my entire worldwide right, title and interest in and to any and all inventions and other ideas described in the above-identified patent application, as well as in and to said application and all divisional, continuing (in whole or in part), substitute, renewal, reissue, provisional or other applications or registrations for Letters Patent which have been or shall be filed in the United States and all foreign countries based on any of said inventions or ideas, or based on or claiming priority to said application; and in and to all original and reissued Letters Patent which have been or shall be issued in the United States and foreign countries from any of said applications or registrations; and in and to all rights of priority resulting from the filing of any of said applications or registrations (all collectively, the "Patent Rights"). Letters Patent as used herein shall include, without limitation, patents, utility models, industrial designs, and any other form of industrial property recognized under the Paris Convention for the Protection of Industrial Property.
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C. I covenant with Assignee, its successors and assigns, that no assignment, grant, mortgage, license, or other agreement affecting the Patent Rights has been made to others by me, and that full right to convey the same as set forth herein is possessed by me.
ASSIGNEE: Verizon Patent and Licensing Inc., a Delaware Corporation with a place of business at One Verizon Way. Basking Ridge, NJ 07920 US
IN WITNESS to my agreement to the foregoing Declaration of Inventor and Inventor Assignment Acknowledgement, I have executed as set forth below:
Full legal name of Inventor: Oliver S. Castaneda
Address: 93 Montgomery St #7, Jersey City, NJ 07302 US
Signature:

**PATENT REEL: 044467 FRAME: 0101**  1

### **DECLARATION AND ASSIGNMENT** FOR PATENT APPLICATION

Patent Application Title: Methods and Systems for Simulating Microphone Capture Within a Capture Zone of a Real-World

Scene	
the patent application for which:  is being filed concurrently herewith, Application Number to be assigned by the USPTO, or was filed on as United States Application Number or PCT International Application Number	
<u>Declaration of Inventor</u>	
As the below named inventor, I hereby declare that:	
<ul> <li>the above-identified application was made or authorized to be made by me;</li> <li>I believe that I am the original inventor or an original joint inventor of a claimed invention in the above-referenced application; and</li> <li>I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. § 1001 b or imprisonment of not more than five (5) years, or both.</li> </ul>	y fine
Inventor Assignment Acknowledgement	
For good and valuable consideration, the receipt of which is hereby acknowledged, I agree as follows:	
A. I hereby assign to the Verizon legal entity identified below ("Assignee"), including its successors and assigns, my entire we right, title and interest in and to any and all inventions and other ideas described in the above-identified patent application, as we and to said application and all divisional, continuing (in whole or in part), substitute, renewal, reissue, provisional or other applications for Letters Patent which have been or shall be filed in the United States and all foreign countries based on any inventions or ideas, or based on or claiming priority to said application; and in and to all original and reissued Letters Patent who been or shall be issued in the United States and foreign countries from any of said applications or registrations; and in and to a of priority resulting from the filing of any of said applications or registrations (all collectively, the "Patent Rights"). Letters Patent who have been or shall include, without limitation, patents, utility models, industrial designs, and any other form of industrial property.	ell as in ications of said ch have all rights atent as
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C. I covenant with Assignee, its successors and assigns, that no assignment, grant, mortgage, license, or other agreement affect Patent Rights has been made to others by me, and that full right to convey the same as set forth herein is possessed by me.	ting the
ASSIGNEE: Verizon Patent and Licensing Inc., a Delaware Corporation with a place of business at One Verizon Basking Ridge, NJ 07920 US	n Way
IN WITNESS to my agreement to the foregoing Declaration of Inventor and Inventor Assignment Acknowledgement, I have eas set forth below:	xecuted
Full legal name of Inventor: Denny Breitenfeld	
Address: 288 Greenwood Ave.; Florham Park, NJ 07932 US	

**RECORDED: 12/21/2017** 

**PATENT REEL: 044467 FRAME: 0102**  1