

## PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT3344415

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
YANGYANG SHI	03/27/2015
ERNEST C. CHEN	04/30/2015
CECILIA C. COMEAUX	03/19/2015
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	The DIRECTV Group, Inc.
<b>Street Address:</b>	2230 E. Imperial Highway
<b>City:</b>	El Segundo
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	90245
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	14660868
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(310)964-0941
<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>	
<b>Email:</b>	janet.shibata@directv.com
<b>Correspondent Name:</b>	THE DIRECTV GROUP, INC.
<b>Address Line 1:</b>	2230 E. IMPERIAL HIGHWAY
<b>Address Line 2:</b>	CA/LA5/A109
<b>Address Line 4:</b>	EL SEGUNDO, CALIFORNIA 90245
<b>ATTORNEY DOCKET NUMBER:</b>	PD-212061
<b>NAME OF SUBMITTER:</b>	JANET SHIBATA
<b>SIGNATURE:</b>	/Janet Shibata/
<b>DATE SIGNED:</b>	05/07/2015
<b>Total Attachments: 6</b>	
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PD-212061  
Page 1 of 3


#### ASSIGNMENT

WHEREAS, YANGYANG SHI, ERNEST C. CHEN and CECILIA C. COMEAUX, as below named joint inventors of the city and state as stated below next to our names, have invented a(an) **METHODS AND SYSTEMS FOR ALIGNING A SATELLITE RECEIVER DISH USING A SMARTPHONE OR TABLET DEVICE** for which application for Letters Patent of the United States was filed on March 17, 2015 as U.S. Patent Application Serial No. 14/660,868, and which application claims benefit of U.S. Provisional Application Serial No. 62/098,255 filed on December 30, 2014.

WHEREAS, The DIRECTV Group, Inc. (hereinafter referred to as the "Company"), a Delaware Corporation, having its principal place of business in El Segundo, California, is desirous of acquiring the entire and exclusive right, title and interest in, to and under said invention, said application and any and all Letters Patent that may be granted therefore in the United States and throughout the world;

NOW, THEREFORE, in consideration of the obligations voluntarily assumed by us and set forth in invention agreements between us and our employer, effective the date as stated below next to our names, and other good and valuable consideration, receipt of which is hereby acknowledged, we do hereby sell, assign and transfer to the Company, its successors, assigns or other legal representatives, the entire and exclusive right, title and interest in and to said invention invented by us, to said application and any and all applications which are continuations, continuations-in-part, divisions or substitutes of said application and any and all Letters Patent that may be granted therefore in the United States and throughout the world on any of said applications and to any and all reexaminations, reissues, renewals or extensions of said Letters Patent in the United States and throughout the world for the full term or terms for which said Letters patent may be granted in the United States and throughout the world; authorize and request The Commissioner of Patents and Trademarks of the United States and all foreign countries to issue all such Letters Patent to said Company, its successors, assigns or other legal representatives; covenant that no assignment, sale, agreement, transfer or encumbrance has been, or will be, made or entered into which would conflict with this assignment, sale and transfer; and agree to communicate to the Company, its successors, assigns or other legal representatives, upon request and at no cost or expense to us, any facts known by us respecting said invention, do all lawful acts, including the execution and delivery of all papers and proper oaths and giving of testimony that is deemed necessary or desirable by the Company, its successors, assigns or other legal representatives with regard to said invention for protecting, obtaining, maintaining and enforcing any and all of said Letters Patent in the United States and throughout the world for said invention and for perfecting, affirming, recording and maintaining the title of the Company, its successors, assigns or other legal representatives, and generally cooperate to the fullest extent in all matters pertaining to said invention, and any and all of said Letters Patent and the title thereto in the Company, its successors, assigns or other legal representatives.

IN WITNESS WHEREOF, we have executed this instrument.

FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
YANGYANG SHI		3-27-2015
RESIDENCE (CITY AND STATE) Belmont, California		

FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
ERNEST C. CHEN		
RESIDENCE (CITY AND STATE) San Pedro, California		

FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
CECILIA C. COMEAUX		
RESIDENCE (CITY AND STATE) Redondo Beach, California		

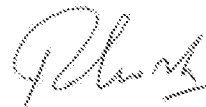
A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which the certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA )  
COUNTY OF Yolo ) SS:

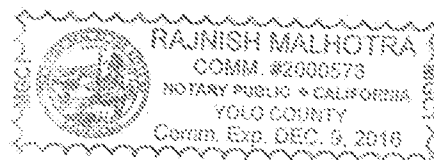
On 27 MARCH 2015, before me, RAJNISH MALHOTRA, a Notary Public in and for said State, personally appeared **YANGYANG SHI**, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, 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.

WITNESS my hand and official seal.



Notary Public



FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
CECILIA C. COMEAUX		
RESIDENCE (CITY AND STATE)		
Redondo Beach, California		

STATE OF CALIFORNIA )  
 ) SS:  
COUNTY OF )

WITNESS my hand and official seal.

**PATENT**  
**REEL: 035591 FRAME: 0320**



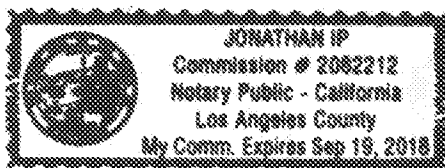
A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which the certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA )  
COUNTY OF Los Angeles ) SS:

On 4/30/2015, before me, JONATHAN IP, a Notary Public in and for said State, personally appeared **ERNEST C. CHEN**, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, 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.

WITNESS my hand and official seal.



[Signature]  
Notary Public

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

STATE OF CALIFORNIA )  
COUNTY OF LOS ANGELES ) SS:

On March \_\_\_\_\_, 2015, before me, Janet E. Shibata, a Notary Public in and for said State, personally appeared **CECILIA C. COMEAUX**, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

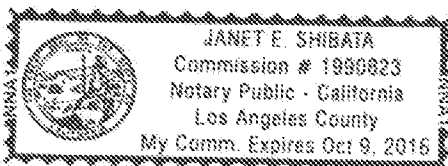
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

\_\_\_\_\_  
Notary Public

Notary Public

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



Notary Public