PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
David Eric Shanks	11/19/2008
Matthew J. Thompson	11/19/2008
Mark A. Shurgot	11/19/2008
David E. Feldstein	11/19/2008
Edgar C. Camacho	11/19/2008
Craig Le	11/19/2008

RECEIVING PARTY DATA

Name:	The DIRECTV Group, Inc.
Street Address:	2230 E. Imperial Highway
City:	El Segundo
State/Country:	CALIFORNIA
Postal Code:	90245

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12098747

CORRESPONDENCE DATA

(310)964-0941 Fax Number:

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

janet.shibata@directv.com Email: Correspondent Name: The DIRECTV Group, Inc. Address Line 1: 2230 E. Imperial Highway

Address Line 2: CA/LA1/A109

Address Line 4: El Segundo, CALIFORNIA 90245

ATTORNEY DOCKET NUMBER:	PD-206035A
NAME OF SUBMITTER:	Janet Shibata

PATENT 500910037 **REEL: 022954 FRAME: 0369**

Total Attachments: 5

source=PD-206035A-ASN#page1.tif source=PD-206035A-ASN#page2.tif source=PD-206035A-ASN#page3.tif source=PD-206035A-ASN#page4.tif

source=PD-206035A-ASN#page5.tif

PATENT REEL: 022954 FRAME: 0370



ASSIGNMENT

Page 1 of 5 PD-206035A

WHEREAS, I, DAVID ERIC SHANKS, MATTHEW J. THOMPSON, MARK A. SHURGOT, DAVID E. FELDSTEIN, EDGAR C. CAMACHO, CRAIG LE and ILAN TIRER, as a below named joint inventor, of the city and state as stated below next to my name, have invented a **MOSAIC CHANNEL VIDEO STREAM WITH INTERACTIVE SERVICES** for which application for Letters Patent of the United States was filed on April 7, 2008 as Serial No. 12/098,747, a continuation application of Serial No. 11/844,971 filed August 24, 2007; and which application claims benefit of U.S. provisional application with Serial No. 60/841,003 filed on August 30, 2006.

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 me and set forth in an invention agreement between me and my employer, effective the date as stated below next to my name, and other good and valuable consideration, receipt of which is hereby acknowledged, I 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 me, 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 me, any facts known by me 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 representative.

> PATENT REEL: 022954 FRAME: 0371

IN WITNESS WHEREOF, I have e	executed this instrument.	
FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
DAVID ERIC SHANKS RESIDENT (CITY AND STATE)	2.7	11-19.08
Los Angeles, California		
STATE OF CALIFORNIA COUNTY OF LOS ANGELES)) SS:)	
evidence to be the person(s) v acknowledged to me that he/she/th	before me, Janet E. Shibata, and ERIC SHANKS, who proved to revious name(s) is/are subscribed ney executed the same in his/her/the in the instrument the person(s), or finstrument.	to the within instrument and ir authorized capacity(ies), and
I certify under PENALTY OF PER paragraph is true and correct.	JURY under the laws of the State	of California that the foregoing
JANET E. Silic Al A Commission # 18164 Notary Public - Califor Los Angeles County My Comm. Expires Oct 9.		E. Di. L.
FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
MATTHEW J. THOMPSON RESIDENT (CITY AND STATE)	12012-	11/19/0>
Torrance, California	÷	
STATE OF CALIFORNIA COUNTY OF LOS ANGELES)) SS:)	
satisfactory evidence to be the pe and acknowledged to me that he/s	, before me, Janet E. Shibata, a FTHEW J. THOMPSON, who properson(s) whose name(s) is/are substhe/they executed the same in his/hee(s) on the instrument the person(sed the instrument.	oved to me on the basis of scribed to the within instrumer ar/their authorized capacity(ies)

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.

JANET E. SHIBATA Commission # 1816479 Notary Public - California Los Angeles County My Comm. Espires Oct 9, 2012

PATENT

REEL: 022954 FRAME: 0372

WITNESS my hand and official seal.

JANET E SHIBATA Commission # 1916479

Notary Public - California Los Angeles County My Comm. Expires Oct 9, 2012

FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
MARK A. SHURGOT RESIDENT (CITY AND STATE)		11/19/2008
Los Angeles, California		
STATE OF CALIFORNIA COUNTY OF LOS ANGELES)) SS:)	
evidence to be the person(s) vacknowledged to me that he/she/tl	before me, Janet E. Shibata, a N K A. SHURGOT, who proved to me ovhose name(s) is/are subscribed to ney executed the same in his/her/their about the instrument the person(s), or the instrument.	the within instrument and authorized capacity(ies), and
I certify under PENALTY OF PER paragraph is true and correct.	RJURY under the laws of the State of	California that the foregoing
JANET E. SHIBATA JANET E. SHIBATA Commission # 181847 Notary Public - Californi Los Angeles County My Comm. Expires Oct 9, 2	No No	Sunta tary Public
FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
DAVID E. FELDSTEIN RESIDENT (CITY AND STATE)		11/19/04
Santa Monica, California		
STATE OF CALIFORNIA COUNTY OF LOS ANGELES)) SS:)	
State, personally appeared DAVII evidence to be the person(s) v acknowledged to me that he/she/th that by his/her/their signature(s) of the person(s) acted, executed the	, before me, Janet E. Shibata, a ND E. FELDSTEIN, who proved to me whose name(s) is/are subscribed to ney executed the same in his/her/their and the instrument the person(s), or the instrument.	on the basis of satisfactory the within instrument and authorized capacity(ies), and entity upon behalf of which
naragraph is true and correct	SOLUTION THE LINE DAYS OF THE STATE OF	Jamornia triat tile foregollig

PATENT REEL: 022954 FRAME: 0373

Notary Public

FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
EDGAR C. CAMACHO RESIDENT (CITY AND STATE)	5 M	11/19/2008
Torrance, California		
STATE OF CALIFORNIA)) SS:	
COUNTY OF LOS ANGELES)	
State, personally appeared EDGA evidence to be the person(s) wacknowledged to me that he/she/tr	, before me, Janet E. Shibata, a Notal AR C. CAMACHO, who proved to me on hose name(s) is/are subscribed to the ney executed the same in his/her/their auth in the instrument the person(s), or the ent instrument.	the basis of satisfactory within instrument and orized capacity(ies), and
I certify under PENALTY OF PER paragraph is true and correct.	JURY under the laws of the State of Cali	fornia that the foregoing
JANET E. SHIBATA Commission # 1816 Notary Public - Califo Los Angeles Count My Comm. Expires Oct 9	479 Notary Publi	nilitz
FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
CRAIG LE RESIDENT (CITY AND STATE)	ando	11-19-08
RESIDENT (CITT AND STATE)	-	
Temple City, California		
STATE OF CALIFORNIA)	
COUNTY OF LOS ANGELES) SS:)	
the personally appeared CRAIG the person(s) whose name(s) is/arc he/she/they executed the same i signature(s) on the instrument the executed the instrument.	, before me, Janet E. Shibata, a Notar E. Shibata, a Notar LE, who proved to me on the basis of safe subscribed to the within instrument and an his/her/their authorized capacity(ies), a person(s), or the entity upon behalf of whom the laws of the State of Calif	tisfactory evidence to be acknowledged to me that and that by his/her/their lich the person(s) acted,
Toertify under PENALTY OF PER	JURY under the laws of the State of Cali	iornia that the foregoing

WITNESS my hand and official seal.

paragraph is true and correct.



PATENT

REEL: 022954 FRAME: 0374

FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
ILAN TIRER		
RESIDENT (CITY AND STATE) Lomita, California		

	STATEMENT BY WITNESS
I,(name of witness)	, whose full post office address is
	(address of witness)
was personally present and did see	ILAN TIRER, who is known to me, execute the above
assignment.	
Date:	(signature of witness)

PATENT
RECORDED: 07/14/2009 REEL: 022954 FRAME: 0375