Form PTO-1595 (Rev. 07/05) 09 - 08 - 08 - 08 - 08 - 09 - 08 - 08 -	Inited States Patent and Trad	
SNIB NO. 9091-9027 (EXP. 9/50/2009)	IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	
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To the Director of the U.S. Patent and Trademark Office: Ple	ase record the attached documents or the new address(es)	
1. Name of conveying party(ies)	2. Name and address of receiving party(ie	s)
David E. Shanks; Edgar Camacho; Matthew J. Thompson; Craig Le;	Name: THE DIRECTV GROUP, INC.	
Mark A. Shurgot; Ilan Tirer David E. Feldstein;	Internal Address: CA/LA1/A109	
Additional name(s) of conveying party(ies) attached? Yes 🗸 N	P.O. BOX 956	
3. Nature of conveyance/Execution Date(s):	Street Address: 2250 E. IMPERIAL HIGHWAY	
Execution Date(s) AUGUST 30, 2006		
Assignment Merger	City El CECUNICO	
Security Agreement Change of Name	City: EL SEGUNDO	
Joint Research Agreement	State: CALIFORNIA	
Government Interest Assignment	Country: U.S.A. Zip: 90245-09	56
Executive Order 9424, Confirmatory License		F-2
A. Patent Application No.(s)	s document is being filed together with a new ap B. Patent No.(s)	es <u>√</u>
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A. Application or patent number(s):  A. Patent Application No.(s)  Additional numbers  5. Name and address to whom correspondence concerning document should be mailed:  Name: THE DIRECTV GROUP, INC.  Internal Address: CA/LA1/A109  P.O. BOX 956  Street Address: 2250 E. IMPERIAL HIGHWAY  City: EL SEGUNDO  State: CALIFORNIA Zip: 90245-0956  Phone Number: 310-964-4615  Fax Number: 310-964-0941  Email Address: gsgrunevach@directv[com]	s document is being filed together with a new ap B. Patent No.(s)  6. Total number of applications and patent involved: ONE  7. Total fee (37 CFR 1.21(h) & 3.41) \$40.00  Authorized to be charged by credit card  Authorized to be charged to deposit accord  Enclosed  None required (government interest not affer a companion)  a. Credit Card Last 4 Numbers Expiration Date  b. Deposit Account Number 50-0383	ts ount ecting
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PATENT REEL: 018259 FRAME: 0290



#### **ASSIGNMENT**

Page 1 of 4 PD-205032

WHEREAS, WE, DAVID ERIC SHANKS, MATTHEW J. THOMPSON, MARK A. SHURGOT, DAVID E. FELDSTEIN, EDGAR CAMACHO, CRAIG LE and ILAN TIRER, as below named joint inventors, of the city and state as stated below next to our names, have invented an MOSAIC CHANNEL VIDEO STREAM WITH INTERACTIVE SERVICES for which application for Letters Patent of the United States has been executed by us on this day, or (if the following is completed) filed on \_\_\_\_\_\_ as Serial No. \_\_\_\_\_\_; and which application claims benefit of U.S. provisional application with Serial No. 60/715,234 filed on September 8, 2005.

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 an invention agreement 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 representative.

> PATENT REEL: 018259 FRAME: 0291

### **ASSIGNMENT**

Page 2 of 4 PD-205032

# IN WITNESS WHEREOF, I have executed this instrument.

FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE						
DAVID E. SHANKS	EM	8/30/00						
RESIDENT (CITY AND STATE)								
Los Angeles, California								
FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE						
MATTHEW J. THOMPSON	mon	3/30/2005						
RESIDENT (CITY AND STATE)								
Torrance, California								
FULL NAME OF SOLE OR	INVENTOR'S SIGNATURE	DATE						
JOINT INVENTOR	INVENTORSSIGNATURE	DATE						
JOHN INVENTOR	+ Ø/	12 12						
MARK A. SHURGOT	10las	8 /30/2006						
RESIDENT (CITY AND STATE)								
110000111 (0111 / 1110 0 / / 1110 0 / / 1110 0 / / 1110 0 / / / /								
Los Angeles, California								
FULL NAME OF SOLE OR	INVENTOR'S SIGNATURE	DATE						
JOINT INVENTOR								
DAVID E. FELDSTEIN	Wil Un	8/30/2006						
RESIDENT (CITY AND STATE)								
Santa Monica, California								
FULL NAME OF SOLE OR	INVENTOR'S SIGNATURE	DATE						
JOINT INVENTOR	INVENTOR 3 SIGNATURE	DATE						
	1CX(1)	4/30/2006						
EDGAR CAMACHO	12 1 2	7/30/200						
RESIDENT (CITY AND STATE)								
Torrance, California								
FULL NAME OF SOLE OR	INVENTOR'S SIGNATURE	DATE						
JOINT INVENTOR								
CRAIG LE	1 ne le	8/30/06						
RESIDENT (CITY AND STATE)								
110000111 (011171112 017112)								
Temple City, California								
FULL NAME OF SOLE OR	INVENTOR'S SIGNATURE	DATE						
JOINT INVENTOR	HAVE TOTAL STORY TO SEE	DATE						
ILAN TIRER	Hen Tuy.	8/30/06						
RESIDENT (CITY AND STATE)								
Lomita California								

**PATENT** 

REEL: 018259 FRAME: 0292

# STATEMENT BY WITNESS

I, JANET SHIBATA, whose full post office address is 2230 E. Imperial Highway, El Segundo, California 90245, was personally present and did see MARK A. SHURGOT and CRAIG LE, who are						
known to me, execute the above assignment.						
(signature of witness)						
Date: August 30, 2006						
STATEMENT BY WITNESS						
I, JANET SHIBATA , whose full post office address is (name of witness)						
2230 E. Imperial Highway, El Segundo, CA 90245 (address of witness)						
was personally present and did see <b>DAVID E. SHANKS</b> who is known to me, execute the above assignment.						
Date: August 30, 2006 (signature of witness)						
STATEMENT BY WITNESS						
I, JANET SHIBATA , whose full post office address is (name of witness)						
2230 E. Imperial Highway, El Segundo, CA 90245 (address of witness)						
was personally present and did see MATTHEW J. THOMPSON, who is known to me, execute the above assignment.						
Date: August 30, 2006 (signature of witness)						
STATEMENT BY WITNESS						
I, JANET SHIBATA , whose full post office address is (name of witness)						
2230 E. Imperial Highway, El Segundo, CA 90245						
(address of witness)						
was personally present and did see DAVID E. FELDSTEIN who is known to me, execute the above						
assignment.						
Date: August 30, 2006						
Date: signature of witness)						

**PATENT** 

REEL: 018259 FRAME: 0293

# STATEMENT BY WITNESS

Ι, _	JANE	T SHIBATA	, whose full post office address is			
(name of witness)						
	2230 E	. Imperial	Highway,	E٦	Segundo,	, California 90245
	(address of witness)					
Wa	was personally present and did see EDGAR CAMACHO who is known to me, execute the above					
as	signment					Hut Siht
Da	ate: Au	ugust 30, 2	2006		(si	signature of witness)

PATENT REEL: 018259 FRAME: 0294

**RECORDED: 08/31/2006**