#### 502997017 09/29/2014

#### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3043616

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	

#### **CONVEYING PARTY DATA**

Name	Execution Date
DIGITAL NETWORKS NORTH AMERICA, INC.	12/12/2007

#### **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:	14496022	

#### **CORRESPONDENCE DATA**

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ATTORNEY DOCKET NUMBER:	03-512-A-CON3	
NAME OF SUBMITTER:	DAVID L. CIESIELSKI	
SIGNATURE: /David L. Ciesielski/		
DATE SIGNED:	09/29/2014	

#### **Total Attachments: 8**

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> PATENT REEL: 033843 FRAME: 0802

#### PATENT ASSIGNMENT

In consideration of One Dollar (\$1.00) and other good and valuable consideration in hand paid, the receipt and sufficiency of which are hereby acknowledged,

### Digital Networks North America, Inc. -

(hereinafter the Assignor) agrees to assign and hereby does assign, transfer and set over to

#### The DirecTV Group, Inc.

(hereinafter the Assignee) its entire right, title and interest in the Patents and Patent Applications listed in the appended SCHEDULE 1, the inventions set forth and described therein, as well as all patents issuing or claiming priority from said Patents and Patent Applications, together with the entire right, title and interest in and to all such Patents and Patent Applications, any and all divisional or continuation applications thereof, and any and all Patents that may be re-issued for said inventions to the end of the term for which each said Patent may be granted.

Assignor further grants Assignee all rights to collect damages for acts of infringement of the foregoing occurring prior to the execution of this Assignment, as well as the right to pursue actions to collect such damages in its own name. Assignor authorizes the issuance of any and all Patents resulting from sald Patent Applications, or any divisional or continuation applications issuing or claiming priority from any of said Patents or Patent Applications, to Assignee as the assignee of the entire right, title and interest in and to the same, for he sole use and benefit of Assignee, its successors, assigns or legal representatives. Assignor, on behalf of itself, its representatives and administrators, hereby covenants and agrees to do all such lawful acts and things and to execute such further lawful assignments, documents, assurances, applications and other instruments as may reasonably be required by Assignee, its successors, assigns or legal representatives, to obtain any and all patents for said inventions, vest the same in said Assignee, its successors, assigns, or legal representatives, and enforce the same. Assignee hereby accepts the interests granted to it by Assignor.

This Agreement may be executed in one or more counterparts for the convenience of the parties hereto, all of which together will constitute one and the same instrument. Facsimile transmission of any signed original document, and retransmission of any facsimile transmission, shall be the same as delivery of any original document. At the request of any party, the other parties will confirm facsimile transmitted signatures by signing an original document.

[Signature page follows]

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Assignor Digital Networks North America, Inc.	Assignee The DirecTV Group, Inc.
Signature: 2/2/2	Signature:
Name: Victor J. Pacor	Name;
Title: CEO	Title:
Date: 12/12/07	Date:

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Modonhell Boehnen Hulbert & Berghoff Odd Gouih Wacker Drive Chicago, Illingis Beo Thi Epighe And Disdon

) .

PATENT REEL: 033843 FRAME: 0804 Assigner

Digital Networks North America, Inc.

Signature:

Name: Victor J. Pacor

Title: CEO

Date:

Date:

| Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Victor J. Pacor | Date: | Date: | Date: | Date: | Victor J. Pacor | Date: | Date: | Date: | Date: | Date: | Date: |

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Modońnell Boehnen Hulbert & Berghoff 900 Bouth Wacker Drive Chicago, Illindib 0800 Telephone (312) 013-0001

# SCHEDULE 1. "

## ISSUED PATENTS

interiol No.	Gounity	Date of Patent	Name of invention
5,479,302	USA	12/26/1995	Single Deck Dual Tape Path VCR System
6,324,338	USA	11/27/2001	Video Data Recorder with Integrated Channel Guides
6,360,053	USA "	3/19/2002	Method and Apparatus for a Fast Forwarding and Rewinding in a Video Playback Device
6,654,546	USA	11/25/2003	Field Upgradeable Recording Device
7,035,528	USA	4/25/2006	Providing Audience Flow in a Personal Television Device
7,251,413	USA .	7/31/2007	System and Method for Improved Blackfield Detection
7,290,211	USA	10/30/2007	Method and System for Reconfiguring a Selection System Based on Layers of Categories Descriptive of Recordable Events
173424	Taiwan	7/4/2003	Method and System for Remote Television Replay Control (Part ${ m II}$ )
181325	Taiwan	11/5/2003	Method and System for Remote Television Replay Control (Part III)
183323	Talwan	12/4/2003	Method and System for Remote Television Replay Control (Part I)
2339785	Canada	1/11/2005	Video Data Recorder with Integrated Channel Guides
EP 1 110390 B1	Europe (Germany, France, UK)	7/18/2007	Video Data Recorder with Integrated Channel Guldes

## US PATENT APPLICATIONS

Gounty.	Application Not Su	Elling Date	To the Name of History Constitution of the State of the S
USA	09/855,813	5/14/2001	Method and System for Extending Recording
USA	09/925,120	8/8/2001	Method and System for Remote Television Replay Control (Part I)
USA	. 09/925,109	8/8/2001	Method and System for Remote Television Replay Control (Part II)
USA	09/972,424	10/4/2001	One Click Web Records
USA	09/978,144	10/15/2001	Method and System for Dynamic Ad Placement
USA	09/978,170	10/15/2001	Method and System for Pause Ads
USA	10/013,930	10/26/2001	Method and Apparatus for Fast Forwarding and Rewinding in a Video Playback Device
USA .	10/033,401	12/26/2001	Advertisements in a Television Recordation System
USA	10/124,064	4/16/2002	Resolving Recording Conflicts
USA	10/124,583	4/16/2002	Method and Apparatus for Sending Content Between Client Devices
· USA ·	10/124,190	4/16/2002	Accessing Programs Using Networked Digital Video Recording Devices
USA	10/133,184	4/26/2002	System and Method for Indexing Commercials in a Video Presentation
USA	10/215,904	8/9/2002	Network Video Unit
USA	10/339,012	1/8/2003	Digital Recording and Playback
· USA	10/386,585	3/11/2003	Video Data Recorder with Personal Channels
USA	10/393,599	3/20/2003	System and Method for Navigation of Indexed Video Content
USA	10/396,229	3/24/2003	Apparatus for Viewing Television with Pause Capability
USA	10/396,230	3/24/2003	System and Method for Aggregating Commercial Navigation Information
USA	10/622,146	7/16/2003	Method and Apparatus for Distributing Media in a Pay Per View Architecture with Remote Playback
USA	10/918,721	. 8/12/2004	Method and Apparatus for Navigating Content in a Personal Video Recorder
USA	10/933,831	9/3/2004	Portable Entertainment Apparatus

706UhiiV	Application No.	g al ling/Date	Name of lavention
USA	10/939,669	9/13/2004	Method and System for Adaptive Transcoding in a Video Network
USA	11/021,096	12/22/2004	Method and Apparatus for Distributing Media in a Pay Per View Architecture with Remote Playback Within an Enterprise
USA	11/030,692	1/5/2005 ·	Method and System for Displaying a Series of Recordable Events
USA	11/152,752	6/13/2005	Video Data Recorder for Recording Programming Content
· USA	11/325,822	1/5/2006	Intelligent Indexing for Locating Programmable Events
USA	11/518,117	9/8/2006	Method and System for Remote Television Replay Control
USA	11/876,181	10/22/2007	Method and System for Reconfiguring a Selection Based on Layers of Categories Descriptive of Recordable Events

### **FOREIGN PATENT APPLICATIONS**

Gounny	Arrolication No.	EUTTODAY	a di diame orilinyantion
Canada	2339784	8/6/1999	Video Data Recorder with Personal Channels
Canada	2339787	8/6/1999	Video Data Recorder for Recording Predefined Format Shows
Canada	2339789	8/6/1999	Method and Apparatus for Fast Forwarding and Rewinding in a Video Recording Device
Canada	2592778	1/5/2006	Method and System for Intelligent Indexing of Recordable Event Identifiers
Canada	2593687	12/21/2005	Method and System for Displaying a Series of Recordable Events
Canada	2594238	12/21/2005	Method and System for Reconfiguring a Selection System Based on Layers of Categories Descriptive of Recordable Events
Europe	1959667.5	8/8/2001	Method and System for Remote Television Replay Control (Part I)
Europe	1963848.5	8/8/2001	Method and System for Remote Television Replay Control (Part II)
Europe	1957504.2	8/8/2001	Method and System for Remote Television Replay Control (Part III)
Europe	1983970.3	10/15/2001	Method and System for Dynamic Ad Placement
Europe	1983137.9	10/15/2001	Method and System for Pause Ads
Europe	1989287.6	12/26/2001	Advertisements in a Television Recordation System
Europe	1992437.2	12/28/2001	One Click Web Records
Europe	3736500.4	4/28/2003	System and Method for Indexing Commercials in a Video Presentation
Europe	3728602.8	4/28/2003	System and Method for Blackfield Detection
Europe	3738892.3	5/3/2003	Pay Per View Architecture Providing for Local Storage of Content
Europe	3762331,1	6/26/2003	Apparatus for Viewing Television with Pause Capability
Europe	4778418.6	7/16/2004	Method and Apparatus for Distributing Media in a Pay Per Play Architecture with Remote Playback
Europe	4781021.3	8/12/2004	Method and Apparatus for Navigating Content in a Personal Video Recorder
Europe	4783345.4	9/3/2004	Portable Entertainment Apparatus
Europe	4783964.2	9/13/2004	Method and System for Adaptive Transcoding in a Video Network

Conning	Application No.	Filing Pates	Name on English (1997)
. Europe	4815606.1	12/22/2004	Method and Apparatus for Distributing Media in a Pay Per Play Architecture With Remote Playback Within an Enterprise
Europe	6717431.8	1/5/2006	Intelligent Indexing for Locating Programmable Events
Europe	5855303.3	12/21/2005	Method and System for Displaying a Series of Recordable Events
Europe	5855087.2	12/21/2005	Method and System for Reconfiguring a Selection System Base on Layers of Categories Descriptive of Recordable Events
Hong Kong	5106227.7	4/28/2003	System and Method for Indexing Commercials in a Video Presentation
Hong Kong	5106228.6	4/28/2003	System and Method for Improved Blackfield Detection
Japan	2000-564,377	8/6/1999	Video Data Recorder with Integrated Channel Guides
Japan	· 2006-7513	8/6/1999	Video Data Recorder with Integrated Channel Guides
Japan	2000-564,375	8/6/1999	Video Data Recorder with Personal Channels
Japan	2006-520370	1/16/2006	Method and Apparatus for Distributing Media in a Pay Per Play Architecture with Remote Playback
Japan	2005-523394	8/12/2004	Method and Apparatus for Navigating Content in a Personal Video Recorder
Јарал	2006-526227	3/3/2006	Portable Entertainment Apparatus
Japan	2006-526967	3/15/2006	Method and System for Adaptive Transcoding in a Video Network
Japan	2004-500,294	10/25/2004	System and Method for Indexing Commercials in a Video Presentation
Japan	2004-500,491	10/25/2004	System and Method for Blackfield Detection
Japan	2006-547447	12/22/2004	Method and Apparatus for Distributing Media in a Pay Per Play Architecture with Remote Playback within an Enterprise
Japan	2004-518,234	12/27/2004	Apparatus for Viewing Television with Pause Capability
Japan	2004-571,669	11/2/2005	Pay Per View Architecture Providing for Local Storage of Content

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