PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1   EPAS ID: PAT5461990
Stylesheet Version v1.2

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS

CONVEYING PARTY DATA

Name	Execution Date
BANK OF AMERICA, N.A., AS ADMINISTRATIVE AGENT	04/04/2019

RECEIVING PARTY DATA

Name:	ARRIS GROUP, INC.
Street Address:	101 TOURNAMENT DRIVE
Internal Address:	ATTN LEGAL DOCKETING
City:	HORSHAM
State/Country:	PENNSYLVANIA
Postal Code:	19044
Name:	ARRIS ENTERPRISES, INC.
Street Address:	101 TOURNAMENT DRIVE
Internal Address:	ATTN LEGAL DOCKETING
City:	HORSHAM
State/Country:	PENNSYLVANIA
Postal Code:	19044
Name:	ARRIS INTERNATIONAL LIMITED
Street Address:	101 TOURNAMENT DRIVE
Internal Address:	ATTN LEGAL DOCKETING
City:	HORSHAM
State/Country:	PENNSYLVANIA
Postal Code:	19044
Name:	ARRIS TECHNOLOGY, INC.
Street Address:	101 TOURNAMENT DRIVE
Internal Address:	ATTN LEGAL DOCKETING
City:	HORSHAM
State/Country:	PENNSYLVANIA
Postal Code:	19044
Name:	ARCHIE U.S. MERGER LLC
Street Address:	101 TOURNAMENT DRIVE
Internal Address:	ATTN LEGAL DOCKETING
City:	HORSHAM

State/Country:	PENNSYLVANIA
Postal Code:	19044
Name:	ARCHIE U.S. HOLDINGS LLC
Street Address:	101 TOURNAMENT DRIVE
Internal Address:	ATTN LEGAL DOCKETING
City:	HORSHAM
State/Country:	PENNSYLVANIA
Postal Code:	19044
Name:	ARRIS GLOBAL SERVICES, INC.
Street Address:	101 TOURNAMENT DRIVE
Internal Address:	ATTN LEGAL DOCKETING
City:	HORSHAM
State/Country:	PENNSYLVANIA
Postal Code:	19044
Name:	ARRIS HOLDINGS CORP. OF ILLINOIS, INC.
Street Address:	101 TOURNAMENT DRIVE
Internal Address:	ATTN LEGAL DOCKETING
City:	HORSHAM
State/Country:	PENNSYLVANIA
Postal Code:	19044
Name:	ARRIS SOLUTIONS, INC.
Street Address:	101 TOURNAMENT DRIVE
Internal Address:	ATTN LEGAL DOCKETING
City:	HORSHAM
State/Country:	PENNSYLVANIA
Postal Code:	19044
Name:	BIG BAND NETWORKS, INC.
Street Address:	101 TOURNAMENT DRIVE
Internal Address:	ATTN LEGAL DOCKETING
City:	HORSHAM
State/Country:	PENNSYLVANIA
Postal Code:	19044
Name:	TEXSCAN CORPORATION
Street Address:	101 TOURNAMENT DRIVE
Internal Address:	ATTN LEGAL DOCKETING
City:	HORSHAM
State/Country:	PENNSYLVANIA
Postal Code:	19044
Name:	POWER GUARD, INC.

Street Address:	101 TOURNAMENT DRIVE
Internal Address:	ATTN LEGAL DOCKETING
City:	HORSHAM
State/Country:	PENNSYLVANIA
Postal Code:	19044
Name:	JERROLD DC RADIO, INC.
Street Address:	101 TOURNAMENT DRIVE
Internal Address:	ATTN LEGAL DOCKETING
City:	HORSHAM
State/Country:	PENNSYLVANIA
Postal Code:	19044
Name:	NEXTLEVEL SYSTEMS (PUERTO RICO), INC.
Street Address:	101 TOURNAMENT DRIVE
Internal Address:	ATTN LEGAL DOCKETING
City:	HORSHAM
State/Country:	PENNSYLVANIA
Postal Code:	19044
Name:	GIC INTERNATIONAL HOLDCO LLC
Street Address:	101 TOURNAMENT DRIVE
Internal Address:	ATTN LEGAL DOCKETING
City:	HORSHAM
State/Country:	PENNSYLVANIA
Postal Code:	19044
Name:	GIC INTERNATIONAL CAPITAL LLC
Street Address:	101 TOURNAMENT DRIVE
Internal Address:	ATTN LEGAL DOCKETING
City:	HORSHAM
State/Country:	PENNSYLVANIA
Postal Code:	19044

PROPERTY NUMBERS Total: 442

Property Type	Number
Patent Number:	8589999
Patent Number:	8566393
Patent Number:	8898228
Patent Number:	8190677
Patent Number:	8301696
Patent Number:	8910227
Patent Number:	9065735

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Application Number:	13947415
Application Number:	13947462
Application Number:	14455101
Application Number:	14530004
Application Number:	14153207
Application Number:	14142725
Application Number:	14462995
Application Number:	14463005
Application Number:	14462062
Application Number:	14243984
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Application Number:	14477509
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Application Number:	14302190

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Application Number:	14482338
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Property Type	Number
Application Number:	08986137
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Application Number:	09369624
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Application Number:	62152384
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Application Number:	62149961
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Property Type	Number
Application Number:	62153759
Application Number:	62167084
Application Number:	62171350
Application Number:	14708549
Application Number:	14722918
Application Number:	14698042
Application Number:	14718203
Application Number:	14718216
Application Number:	14702007
Application Number:	14722205
Application Number:	14727827
Application Number:	14723573
Application Number:	14723786
Application Number:	14718188
Application Number:	14711175
Application Number:	14710977
Application Number:	14727233

CORRESPONDENCE DATA

Fax Number: (704)331-1159

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.

Phone: 7043311000

Email: PTO_TMconfirmation@mvalaw.com,
maryelizabethzaldivar@mvalaw.com

Correspondent Name: MOORE & VAN ALLEN PLLC

Address Line 1: 100 NORTH TRYON STREET

Address Line 2: SUITE 4700, ATTN: IP DEPARTMENT

Address Line 4: CHARLOTTE, NORTH CAROLINA 28202

ATTORNEY DOCKET NUMBER:	327000.027689
NAME OF SUBMITTER:	JOHN SLAUGHTER
SIGNATURE:	/john slaughter/
DATE SIGNED:	04/08/2019

Total Attachments: 38
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TERMINATION AND RELEASE OF SECURITY INTEREST
IN PATENTS

This **TERMINATION AND RELEASE OF SECURITY INTEREST IN PATENTS**, dated as of April 4, 2019 ("Release"), is made by Bank of America, N.A., as Administrative Agent ("Administrative Agent") in favor of the grantors listed on Exhibit A hereto (each a "Grantor", and collectively, the "Grantors").

WHEREAS, pursuant to that certain Collateral Agreement, dated as of March 27, 2013, as amended and restated as of June 18, 2015 (as amended, supplemented or otherwise modified from time to time, the "Collateral Agreement") and Grant of Security Interest in Patent Rights dated as of June 18, 2015 ("Patent Grant"), each by and among the Grantors and Administrative Agent, each Grantor granted to the Administrative Agent, for the ratable benefit of the Secured Parties, a security interest in and to such Grantor's Patents; and

WHEREAS, the Patent Grant was recorded at the United States Patent and Trademark Office ("USPTO") on June 26, 2015 at Reel 036020 Frame 0789.

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Administrative Agent, on behalf of the Secured Parties, and Grantor agree as follows:

SECTION 1. Defined Terms. All capitalized terms used herein but not otherwise defined herein have the meanings given to them in the Collateral Agreement or Patent Grant, as applicable.

SECTION 2. Termination and Release. Administrative Agent, on behalf of the Secured Parties, without representation, warranty, or recourse, hereby:

(a) terminates, cancels, discharges, and releases the security interest in and to each Grantor's Patents, including, but not limited to, the foregoing listed on Schedule A attached hereto, granted pursuant to the Collateral Agreement or Patent Grant; and
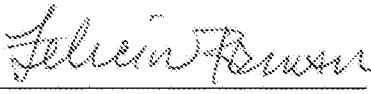
(b) authorizes the recordation of this Release with the USPTO at Grantor's expense.

SECTION 3. Choice of Law. This Release shall be governed by and construed in accordance with the laws of the State of New York.

IN WITNESS WHEREOF, the Administrative Agent, on behalf of the Secured Parties, has caused this Termination and Release of Security Interest in Patents to be duly executed as of the date first set forth above.

Administrative Agent:

Bank of America, N.A., as Administrative Agent

By:_____

Name:

Title: Felicia Brinson
                Assistant Vice President

Exhibit A

Grantors

ARRIS GROUP, INC., a Delaware corporation

ARRIS ENTERPRISES, INC., a Delaware corporation

ARRIS INTERNATIONAL LIMITED, an England private limited company

ARRIS TECHNOLOGY, INC., a Delaware corporation

ARCHIE U.S. MERGER LLC, Delaware limited liability company

ARCHIE U.S. HOLDINGS LLC, Delaware limited liability company

ARRIS GLOBAL SERVICES, INC., a Delaware corporation

ARRIS HOLDINGS CORP. OF ILLINOIS, INC., an Illinois corporation

ARRIS SOLUTIONS, INC., a Delaware corporation

BIG BAND NETWORKS, INC., a Delaware corporation

TEXSCAN CORPORATION, a Nevada corporation

POWER GUARD, INC., an Illinois corporation

JERROLD DC RADIO, INC., a Delaware corporation

NEXTLEVEL SYSTEMS (PUERTO RICO), INC., a Delaware corporation

GIC INTERNATIONAL HOLDCO LLC, Delaware limited liability company

GIC INTERNATIONAL CAPITAL LLC, Delaware limited liability company

Patent #	Application #	Title
	13/947,415	IMPROVED FLOW CONTROL IN A NETWORK DEVICE
	13/947,462	IMPROVED FLOW CONTROL IN A NETWORK DEVICE
	14/455101	Mitigating Noise and OBI in RFoG Networks
	14/530004	Mitigating Noise and OBI in RFoG Networks
	14/153207	DIGITIZER FOR USE IN AN OVERLAY SYSTEM WITH DIGITAL OPTICAL TRANSMITTER FOR DIGITIZED NARROWCAST SIGNALS
	14/142725	Adaptive Network Optimization in an optical communications system
	14/462995	ECHO CANCELLATION IN A BIDIRECTIONAL COMMUNICATION SYSTEM FOR OUT OF BAND SIGNALING TO A USER DEVICE
	14/463005	SYSTEMS AND METHODS FOR REDUCING FREQUENCY SPECTRUM LOSSES IN A BIDIRECTIONAL COMMUNICATION SYSTEM
	14/462062	Digitized Broadcast Signals
	14/243984	EML bias control without using an optical receiver
	14/201682	EXTERNALLY MODULATED OPTICAL TRANSMITTER WITH CHIRP CONTROL

Patent #	Application #	Title
	14/453603	Segmentable Optical Node Module Configurable as an RF Amplifier and Corresponding Methods and Systems
	14/462084	Remote Modulation of Pre-Transformed Data
	14/463011	Fiber-Optic Node with Forward Data Content Driven Power Consumption
	14/456624	Double capacity pluggable optics
	14/477509	Integrated Tap and Home Network Filter
	14/462105	Frequency Sub-Band Coding of Digital Signals
	14/462985	R-CCAP with AM start architecture
	14/463017	PILOT TONE FOR AMPLIFIER BIAS POINT
	14/190,932	Source optimized dynamic trickplay
	14/332721	Adaptive stereo scaling format switch for 3D video encoding
	14/578955	Multiple Stream Video Compression in Multiple Bitrate Video Encoding
	14/478538	ADAPTIVE BIT RATE CO-OPERATIVE TRANSCODING
	14/467734	Maintaining End-to-End Quality of Service
	14/481852	Remote Image Signing
	14/446767	AUTOMATIC AND ADAPTIVE SELECTION OF PROFILES FOR ADAPTIVE BIT RATE STREAMING
	14/083,601	Method and Apparatus for an External Event Ticker
	14/507329	Method and Device for Receiving and Providing Programs

Patent #	Application #	Title
8589999	12/853,325	Methods and Systems for Splicing Between Media Streams
	14/495377	Automated Capture of Impaired Video
	14/209117	Detecting Plant Degradation using Peer-Comparison
	14/201305	QUALIFICATION OF WIRELESS NETWORK ENVIRONMENTS
	14/041,962	Recorded Multimedia and Live Television Roaming
	14/084596	Power Saving Mode for MoCA 1.1 Clients
	14579121	Image Capture of Multimedia Content
	14584044	Method to Optimize the Quality of Video Delivered over a Network
	62/098962	Deferred Advertisement Viewing
	14/482368	Creating Derivative Advertisements
	14/302190	System for automatic creation of related video references at the segment level of the primary video
	14/482338	SECOND SCREEN ADVERTISEMENT CORRELATION USING SCHEDULING INFORMATION FOR FIRST SCREEN ADVERTISEMENTS
	14/483396	Persistent Household Key Mechanism for In-Home Content Distribution
	14/483426	METHOD OF PROVISIONING PERSISTENT HOUSEHOLD KEYS FOR IN-HOME MEDIA CONTENT DISTRIBUTION
	14/302229	System and method for automatic detection of demarcating segments in

Patent #	Application #	Title
		video sequences
	14/302155	Method to Select Thumbnails for Segmented Video
	14/563680	Method for Automatic Tracking of Hybrid Fiber Coaxial Upstream Service Upgrades
	12/400,270	MULTI-TIERED SCALABLE MEDIA STREAMING SYSTEMS AND METHODS
	12/400,306	PROGRESSIVE DOWNLOAD GATEWAY
8566393	12/842,474	METHODS AND SYSTEMS FOR SCALABLE VIDEO CHUNKING
8898228 B2	14/037,906	METHODS AND SYSTEMS FOR SCALABLE VIDEO CHUNKING
8190677	12/842,515	METHODS AND SYSTEMS FOR SCALABLE VIDEO DELIVERY
8301696	13/445,285	METHODS AND SYSTEMS FOR SCALABLE VIDEO CHUNKING
	13/445,361	METHODS AND SYSTEMS FOR TRANSMUXING STREAMING MEDIA
	14/038008	REWIND TV
8910227 B1	14/040913	Method and System for Allocating Bandwidth based on Transmission Power of Devices Transmitting over Communications Channels in a Network
	14/302126	INTELLIGENT TRAFFIC OPTIMIZER
	14/513264	Multi-Level Flow Control
	14/037,752	QoS for adaptable HTTP video
	14/207459	Parallel Low-Density Parity Check (LDPC) Accumulation

Patent #	Application #	Title
9065735	14/248938	A Method for Improving the Upstream CMTS Measured Error Ratio (MER) Calculation
	14/247921	Method to improve performance in communication devices when pre-equalization and DFE post-equalization are utilized
	14/251944	MULTI-CARRIER LOAD-BALANCING
	14519203	Dynamic Power Reduction Management of Network Devices
	14/142246	Determining Bitloading Profiles based on SNR Measurements
	14/247671	rear wire management tray for E6000 chassis
	14/142256	Scheduler for High-Throughput System having Multiple Profiles
	14/200254	Identifying wideband impulse noise using a group of small channels
	14/247472	Algorithmically Adjusting the Number of Equalizer Taps in an Upstream Receiver
	14/247895	Subscriber-Aware Duplicate Address Detection Proxy in Edge Devices
	14/247347	CAM Sparing method to only Spare for Guy to your Right instead of having to spare for all cards in spare group
	14/465717	Method and system for provisioning specification subsets for standards-based communication network devices
	14/194910	Improved Channel Scanning
	14/259303	Reduced Crosstalk in a Multi-Channel Conductive Body Connector
	14/022,327	Reduced Latency Channel Switching for IPTV

Patent #	Application #	Title
	14/025,923	Improved Resilient Channel and Broadcast Modulation
	13/871,068	Automatic Recovery from Non-Functional Download
	14/142231	Choice of Initialization Technique for Load Balancing Attempts
	14/311847	LIGHT GUIDE WITH INTEGRATED ICON
	14/196681	MoCA Setup and WiFi Pairing
	14/601329	Hybrid Program Change for IP-Enabled Multimedia Devices
	14/187657	CPE password scheme for a highly dynamic and scalable environment
	14/459961	Internet Protocol Television Tuning Adapter
	14/259638	Hybrid IPTV/QAM Resource Managment System
	14519683	Channel Scanning Based Upon Interleaver Depth
	14/303515	Logical content ad insertion
	13/905684	Sliding Window View Group Constructs in Relational Database Query Language
	13/589448	Trickplay Control Using Finite State Automata
	13/905704	Sliding Window View Constructs in Relational Database Query Language
	14/211699	Multi-Tier Storage for Delivery of Services
	13/962,170	Aggregate Data Streams in Relational Database Systems
	14/459538	Content traceability using segmented watermark encoding
	14/307569	Identifying Home/External Issues for Installation Quality
	14/504020	Modified HEVC Transform Tree Syntax

Patent #	Application #	Title
	14/603534	Reducing start-up delay in streaming media sessions
	14/570257	Video-on-Demand Delivery System and Method
	14/503813	Upstream Interference Eliminating Transmission of Digital Baseband Signal in an Optical Network
	14/251958	Real Time Key Collection in Device Provisioning
	62/003695	Method and apparatus for Content-Aware Scheduling of HEVC Decoder on a Multi-core Platform
	62/003711	METHOD AND APPARATUS FOR ACCELERATING CABAC IN VIDEO CODECS
	14/521763	Method and Apparatus for Decoding an Enhanced Video Stream
	14/533347	Simplified Processing of Weighted Prediction Syntax and Semantics Using a Bit Depth Variable for High Precision Data
	14/595608	Automatic Detection of Logos in Video Sequences
	62/003531	System and Apparatus for Fault-Tolerant Content Configuration and Orchestration Among Multiple DRM Systems
	14/581060	Adaptive Streaming Transcoder Synchronization
	14/533369	Bit Depth Variable for High Precision Data in Weighted Prediction Syntax and Semantics
	14/533386	Modification of Picture Parameter Set (PPS) for HEVC Extensions
	14/546315	Intra Block Copy for Intra Slices in High Efficiency Video Coding (HEVC)

Patent #	Application #	Title
	14/670472	Method and Apparatus for Encoding Rate Control in Advanced Coding Schemes
	14/548540	Control Messaging in a Cable Network
	14/455352	CHANNEL TUNING WITH SYNTHESIZED KEY CODES
	14/567366	Wireless Access Point Transmission Control
	62/010761	Restricted Code Signing
	62/014063	Method and apparatus for creation and consumption of generalized trick-play streams in an adaptive bit-rate streaming system
	14/571636	Producing an Output Need Parameter for an Encoder
	14/461536	METHOD AND APPARATUS FOR LOCALIZED MANAGEMENT OF FEATURE LICENSES
	14/289949	Pivotable Fan Assembly and Associated Systems
	14/628524	Summary Metrics for Telemetry Management of Devices
	14/575420	An Inheritance Based Right Object File Generation and Management Scheme in a Home Server
	62/016970	A Method for Using a Decoder or Look-ahead Encoder to control an Adaptive Motion Compensated Temporal Filter.
	14/676914	SEAMLESS BANDWIDTH GROWTH WITH RFOG
	61/984303	SEAMLESS BANDWIDTH GROWTH WITH RFOG

Patent #	Application #	Title
	14/585485	Conditionally Parsing Extension Syntax of Picture Parameter Set (PPS) for HEVC Range Extension and MV-HEVC
	29/502,332	GATEWAY SET-TOP BOX ENCLOSURE
	29/497556	Client Set-Top Box Enclosure
	14/568987	Gateway Server Conditioned Media Streaming
	14/611463	Automated Video Testing Using QR Codes Embedded in a Video Stream
	14/633850	Recognizable Identification of a Network Device
	14/262022	OBI mitigation via Intelligent Group Sorting and Assignment/Scheduling
	14/486412	Intra-Chassis Protection Systems and Methods for Passive Optical Network Optical Line Terminals
	14/683230	Smart Receivers and Transmitters for CATV Networks
	14/632320	Copy Count for DTCP with an Abbreviation Hash Used for Check in Copy
	14/662485	Mechanism to customize targeted advertisements based on profile information exchange during transference of media or media-related content
	14/677443	N-INPUT RECEIVER: RFOG OBI MITIGATION WITH RETRANSMISSION
	14/568096	Processing Segments of Closed-Caption Text Using External Sources
	14/581108	ADAPTIVE STREAMING TRANSCODER SYNCHRONIZATION
	62/020118	ADAPTIVE STREAMING TRANSCODER SYNCHRONIZATION

Patent #	Application #	Title
	29/502023	Enclosure for an Electronic Device
	14/661867	Scalable video coding using reference and scaled reference layer offsets
	14/662204	Scalable video coding using phase offset flag signaling
	14/662376	Scalable Coding of Video Sequences using Tone Mapping and Different Color Gamuts
	14/574626	Mechanism for Transference of Media meta-data
	62/082719	Quality of Service for Mixed Service Tiers
	14/595660	Detection of Solid Color Frames for Determining Transitions in Video Content
	62/034236	Adaptive Bit Rate (ABR) Statistical Multiplexing (Stat Muxing)
	14/615834	Customized Captioning for Client Device
	14/581133	ADAPTIVE STREAMING TRANSCODER SYNCHRONIZATION
	62/020134	ADAPTIVE STREAMING TRANSCODER SYNCHRONIZATION
	62052995	Hybrid Street Level Routing
	14/677064	MINIMIZING UNICAST BANDWIDTH IN AN ADAPTIVE BIT RATE SYSTEM
	61/988504	Method for minimizing unicast bandwidth during channel change in a Multicast ABR delivery system
	14/529849	Provisioning DRM Credentials on a Client Device Using an Update Server
	61/990248	DTCP-IP Certificate Download from OPUS for VMS Mobility Solution using

Patent #	Application #	Title
		VMS-Generated Token
	62/018003	Use of remote control for set-tops systems which do not have a physical/hardware WPS button
	62/003534	A method to optimize the deduplication of randomly scheduled TV recordings for efficient archival storage
	62/001412	Transport of SHVC and support for compelling use cases
	14/569048	Throttling Content Download in Adaptive HTTP Live Streaming
	61/985181	User Interface with Video Frame Tiles
	61/987466	On reference layer and scaled reference layer offsets for scalable video coding
	14/576438	Detection of Failures in Advertisement Replacement
	29/512687	Set-Top Enclosure
	62/006020	On scale factor and offset parameters for inter-layer prediction in scalable video coding
	62/017380	Server-Side Adaptive Bit Rate Control for HTTP Streaming Clients
	14/584005	Method to Enable 'Swiping' Content From One Screen in the Home to Another
	14/581176	Systems and Methods for Preventing Energy Leakage in Communications Systems
	62/010433	On reference layer and scaled reference layer offsets for scalable video coding

Patent #	Application #	Title
	14/557811	Method and System for Advertisement Multicast Pre-Delivery Caching
	62/034479	Managing Connections to Service Sets
	62/053344	WiFI Proxy Channel Scan
	14/625187	Active Optical Combiner for CATV Network
	62/043793	ACTIVE OPTICAL COMBINER FOR CATV NETWORK
	14/625601	Systems and Methods for Clip Prevention in a CATV Network
	14/625608	Systems and Methods for Optical Modulation Index Calibration in a CATV Network
	14/676887	Optical Combiner Energy Harvesting
	62/043787	Photon Harvesting Signaling and Passive Optical Combiner
	62/063083	Pre-Failure Alert for Set-Top Disk
	14/679235	Optical and RF Techniques for Aggregation of Photo Diode Arrays
	62/043779	Optical and RF Techniques for Aggregation of Photo Diode Arrays
	62/049318	Bring Your Own Service (BYOS)
	62/057614	Bridging Identified Devices in Gateway Using Media Access Control Address
	62/136787	Wireless-Enhanced Home Security
	62/044753	Fast frame/field decisions for encoding a group of pictures
	62/066971	Minimized Latency in Adaptive Streaming Using HTTP Chunked Transfer Encoding and Zero Copy Segmentation

Patent #	Application #	Title
	14/625613	Systems and Methods for Burst Detection in a CATV Network
	62/052,213	Optical Burst Mode Relay System
	62/100534	Method to Intelligently Detect, Process and Reformat Closed Caption Data Multiplex on an ATSC Receiver
	62/053507	Video quality of experience monitoring and optimizing system
	62/100122	Method for efficient processing of BTP Enabled MPEG4 Transport Stream
	14/640147	Detecting of Graphical Objects to Identify Video Demarcations
	14/677675	Upstream Aggregation with Noise Performance Improvement
	29/504090	Digital Satellite Receiver Cover
	29/518661	Digital Satellite Receiver Cover
	62/080593	Coordination of Multiple Devices for Delivery of Multiple Services
	62/084201	Automated retrieval of social media tags for currently tuned program
	62/062030	Modification of Screen Content Coding Related Semantics for HEVC Extension
	62/063693	Modification of Intra Block Copy Mode for HEVC Extension
	62/087460	A method to check for audio distortion including but not confined to lip sync using a reference audio video stream
	62/065361	Modification of Coding of Prediction Mode for HEVC Screen Content Coding Extension

Patent #	Application #	Title
	29/508701	Network Device Enclosure
	62/078454	Autoconfiguration of Home Network Extender
	62/073275	Interface for identifying Status Data at Login Page
	14/677472	Technique Allowing Coexistence Between Legacy STB DS OOB and DOCSIS 3.1 US High-Split
	62/107589	Automatic Configuration of a Wireless Distribution System Extended Network
	29/516495	Design for Customer Premise Equipment Device
	62/139049	Cryptographic Service with Output Redirection
	62/077873	On the Design of Optimal Sub-Pixel Motion Compensation Interpolation Filters for Video Compression
	62/143554	Intelligentmultimedia Content Re-Positioning
	62/108272	Candidate Randomized Branch-Encoding Primitive
	62/109162	Picture-Level QP Rate Control for HEVC Encoder
	62/099672	A method for encoding video with film grain
	62/099674	Using MCTF statistics for Fade/Dissolve/Cut scene change detection
	62/143566	Selective Partial Recordings and Content Synchronization Between Gateway and Client
8745687	11/338110	DIGITAL CLOSED CAPTION TRANSPORT IN STANDALONE STREAM
	14/257725	DIGITAL CLOSED CAPTION TRANSPORT IN STANDALONE STREAM

Patent #	Application #	Title
	62/126783	Methods to enable an HLS sink to consume and playback content from a DLNA source
	14/676874	Distributed Optical Combining: OBI Free, Power Free
	62/100173	Distributed Optical Combining: OBI Free and Power Free
	14/683260	Fan Assembly and Associated Systems
	62/100,934	Server-Side Adaptive Bit Rate Control for DLNA HTTP Streaming Clients
	62/140076	ARRIS Secure Media DRM APIs in Hosted Architecture
	62/103666	Modification of Coding of Prediction Mode for intra slice for HEVC Screen Content Coding Extension
	62/110128	Freezing Display in Response to On Screen Notifications
	62/110092	User Interface for Managing Networked Devices
	62/121563	INTELLIGENT ADAPTIVE JOINT RATE ALLOCATION FOR MULTIMEDIA COMPRESSION
	62/113590	Carriage of VCB (ISO/IEC 14496-31 - Video Coding for Browsers) Video over MPEG-2 Transport Streams
	62/113982	Modification of Some HEVC Extensions Related Syntax
	62/114636	Wireless Video performance self-monitoring and Alert System
	62/114841	Panic Mode Handling of HEVC Encoder
	62/116976	Reset (A, B) for every level after new scene change
	62/117131	Reset (A, B) for non-Intra picture if there are too many Intra blocks

Patent #	Application #	Title
	62/117581	Exclusion for model parameter (A, B) in Parallel Picture
	62/117584	Fill buffer level gap with prediction in Parallel Picture
	62/115945	Modification of Some HEVC Extensions Related Semantics
	62/121595	Modification of Unification of Intra Block Copy and Inter Signaling Related Syntax and Semantics
	62/121609	Disable Skip and Merge Modes for Spatial Prediction Slices
	29/519236	Set-Top Box Module and Digital Video Recorder Module
	62/127574	Dockable DVR module
	62/136185	Threshold Frequency Protective Splitter and Tap
	62/136858	Practical Methods to Validate Ultra HD 4K Content
	62/145481	Statistical multiplexing analytics systems and methods
	62/145487	Systems and methods to characterize and optimize statistical multiplexing
	62/149837	Modification of Unification of Intra Block Copy and Inter Signaling Related Syntax and Semantics
	14/073957	AUTOMATIC LOCATION IDENTIFICATION OF CABLE Wi-FiAND SMALL CELL NODES IN HFC NETWORKSAND THEIR INTEGRATION INTO INVENTORY DATABASES
	14/444934	GENERATING ALERTS BASED UPON DETECTOR OUTPUTS
	14/266172	INTERACTIVE VIEWING EXPERIENCES BY DETECTING ON-SCREEN TEXT

Patent #	Application #	Title
	14/483507	Content Based Video Content Segmentation
	14/247369	Self correcting DVR Record Pipeline
	14/247417	CATV DIGITAL TRANSMISSION WITH BANDPASS SAMPLING
	14/062129	Mediaword Compression for Network Digital Media Recorder Applications
	14/261967	Enhanced Methods for Estimating CATV Micro-reflection Delay Characteristic via Equalization Coefficient Analysis
	14/534141	Disseminating Program Content Via Alternative Networks
	14/313235	TRACKING AD PREFERENCES IN ADAPTIVE BIT RATE SYSTEMS
	14/340941	DIRECTLY MODULATED LASER WITH DISPERSION COMPENSATION
	14/303949	UPSAMPLING FILTERING WITH PHASE OFFSET ADJUSTMENT FOR SCALABLE VIDEO CODING
	14/312536	DTCP Converter for HLS
	14/312558	Trick Play Seek Operation for HLS Converted from DTCP
	62/004953	DTCP Converter for HLS
	14/304399	Re-sampling filters for scalable video coding
	14/332133	Re-sampling with phase offset adjustment and signaling
	14/340968	HYBRID LASER ANTI-CLIPPING FOR FIBER-COAXIAL NETWORKS
	14/340952	CONFIGURABLE DIPLEX FILTER WITH TUNABLE INDUCTORS

Patent #	Application #	Title
	14/474509	Multipass Encoder using Heterogeneous Codecs
	14/670611	System and Method for Device Authorization and Remediation
	14/272426	AUTHORIZATION OF MEDIA CONTENT TRANSFER BETWEEN HOME MEDIA SERVER AND CLIENT DEVICE
8774062 B2	13/832388	IP MULTICAST MANAGEMENT AND SERVICE PROVISION SYSTEM AND METHOD
9031235 B2	14/250956	METHOD AND APPARATUS FOR SELECTING A CODING MODE
	14/047598	METHOD AND APPARATUS FOR SELECTING A CODING MODE
	14/164653	METHOD AND APPARATUS FOR SELECTING A CODING MODE
8818458 B2	13/872992	ACTIVE LINK CABLE MESH
8958694	13/786439	ARCHITECTURE TO COMMUNICATE WITH STANDARD HYBRID FIBER COAXIAL RF SIGNALS OVER A PASSIVE OPTICAL NETWORK (HFC PON)
8538069 B2	13/719098	ADAPTIVE VIDEO FINGERPRINTING
	13/955372	Personal Video Recorder
	13/749545	SCALABLE MOTION ESTIMATION WITH MACROBLOCK PARTITIONS OF DIFFERENT SHAPES AND SIZES

Patent #	Application #	Title
	13/733870	METHOD AND APPARATUS FOR DECODING AN ENHANCED VIDEO STREAM
8869223 B2	13/842713	INCREASED CABLE TELEVISION TAP BANDWIDTH UTILIZING EXISTING TAP HOUSINGS
	13/832279	SYSTEM FOR GENERATING CLOSED CAPTIONING COMPATIBLE WITH LEGACY AND NEWER SET-TOP BOXES
	14/317381	SYSTEM FOR REDUCING NOISE IN VIDEO PROCESSING
8490125	12/976053	VIDEO CONTENT NAVIGATION WITH REVENUE MAXIMIZATION
	14/069968	CARRIAGE SYSTEMS ENCODING OR DECODING JPEG 2000 VIDEO
	13/794715	METHOD OF PROCESSING A SEQUENCE OF CODED VIDEO FRAMES
	13/564072	DEVICE AND METHOD FOR A SIGNAL SHIELD
D638812	29/379235	SET-TOP BOX
D638811	29/379233	SET-TOP BOX
	12/959580	METHOD AND APPARATUS FOR DISTRIBUTING VIDEO
	13/842620	NON-LINEAR NAVIGATION OF DATA REPRESENTATION
	13/831428	FEATURE LICENSE-RELATED REPAIR/REPLACEMENT PROCESSES AND CREDIT HANDLING

Patent #	Application #	Title
	13/841865	IMPROVED METHOD OF BIT ALLOCATION FOR IMAGE & VIDEO COMPRESSION USING PERCEPTUAL GUIDANCE
	14/132295	PROVISIONING SENSITIVE DATA INTO THIRD PARTY NETWORK-ENABLED DEVICES
	13/863370	SURGE PROTECTOR
	13/863658	SURGE PROTECTOR
	13/802316	METHOD AND APPARATUS FOR ADAPTIVE BIT RATE CONTENT DELIVERY
	13/719414	USING ANALYTICAL MODELS TO INFORM POLICY DECISIONS
	13/831383	PASSIVE MEASUREMENT OF AVAILABLE LINK BANDWIDTH
	13/839140	SYSTEM AND METHOD FOR DELIVERING 3DTV CONTENT TO VARIETY OF RECEIVERS
	13/923,261	DEVICES, SYSTEMS, AND METHODS FOR CONVERTING OR TRANSLATING DYNAMIC ADAPTIVE STREAMING OVER HTTP (DASH) TO HTTP LIVE STREAMING (HLS)
	13/677618	UPSTREAM RECEIVER INTEGRITY ASSESSMENT FOR MODEM REGISTRATION
	14/207481	STREAMING MEDIA FROM A SERVER DELIVERING INDIVIDUALIZED CONTENT STREAMS TO CLIENTS

Patent #	Application #	Title
	14/207487	PROXY FOR FACILITATING STREAMING OF MEDIA FROM SERVER TO CLIENT
8935305	13/723167	SEQUENTIAL SEMANTIC REPRESENTATIONS FOR MEDIA CURATION
	13/802158	IMPROVED ALGORITHMS FOR DETERMINING BITRATE FOR A STATISTICAL MULTIPLEXING SYSTEM TO ACCOUNT FOR SIGNAL COMPLEXITY INCLUDING FILM MODE AND GOP STRUCTURAL CHANGES
	13/691094	POWER SAVING IN COMPUTING DEVICES
	13/857539	FILTERING CONTENT FOR ADAPTIVE STREAMING
	14/338590	METHODS OF IMPLEMENTING MULTI MODE TRICKPLAY
	13/855686	PROCESSING OF USER-SPECIFIC SOCIAL MEDIA FOR TIME-SHIFTED MULTIMEDIA CONTENT
	13/723176	AUTOMATED OBJECT SELECTION AND PLACEMENT FOR AUGMENTED REALITY
	13/728220	IMPROVED DYNAMIC LOAD BALANCING UNDER PARTIAL SERVICE CONDITIONS
	13/857499	SYSTEM AND METHOD FOR OPTIMIZING STORAGE AND TRANSCODING COSTS IN NETWORK DVR

Patent #	Application #	Title
	14/210305	SYSTEM AND METHOD FOR OPTIMIZING STORAGE AND TRANSCODING COSTS IN NETWORK DVR
	13/855687	PROCESSING OF SOCIAL MEDIA FOR SELECTED TIME-SHIFTED MULTIMEDIA CONTENT
	14/017,388	Timing Correction for a DOCSIS Edge-Qam
	13/864273	RADIO FREQUENCY SHIELD
	13/723141	SYSTEM AND METHOD FOR ACTIVITY RECOGNITION
	14/028507	DYNAMIC CONFIGURABLE ONLINE DATA UPDATE SERVER (ODUS)
	14/207435	CABLE MODEM TERMINATION SYSTEM CONTROL OF CABLE MODEM QUEUE LENGTH
	13/864973	ESTIMATION OF NETWORK PATH AND ELEMENTS USING GEODATA
	13/863333	DEVICES AND METHODS FOR USING BASE LAYER INTRA PREDICTION MODE FOR ENHANCEMENT LAYER INTRA MODE PREDICTION
	13/857519	SYSTEM AND METHOD FOR MULTISCREEN NETWORK DIGITAL VIDEO RECORDING USING ON-DEMAND TRANSCODING
	14/066591	BUSINESS METHOD INCLUDING CHALLENGE-RESPONSE SYSTEM TO SECURELY AUTHENTICATE SOFTWARE

Patent #	Application #	Title
		APPLICATION PROGRAM INTERFACES (APIs)
	14/066636	BUSINESS METHOD INCLUDING HANDSHAKE PROTOCOL TO CONTROL ACTORS AND FUNCTIONS TO PROPAGATE ACCEPTANCE OF AN IP LICENSE TO SECURELY AUTHENTICATE SOFTWARE APPLICATION PROGRAM INTERFACES (APIs)
	14/066653	CHALLENGE-RESPONSE CABLE SET-TOP-BOX SYSTEM TO SECURELY AUTHENTICATE SOFTWARE APPLICATION PROGRAM INTERFACES (APIs)
9027159 B2	14/066657	HANDSHAKE PROTOCOL TO CONTROL ACTORS AND FUNCTIONS IN A CABLE SET-TOP-BOX SYSTEM TO PROPAGATE ACCEPTANCE OF AN IP LICENSE TO SECURELY AUTHENTICATE SOFTWARE APPLICATION PROGRAM INTERFACES (APIs)
	13/913,264	DEVICES AND METHODS FOR MODIFICATIONS OF SYNTAX RELATED TO TRANSFORM SKIP FOR HIGH EFFICIENCY VIDEO CODING (HEVC)
9058522	13/862318	LOGO PRESENCE DETECTION BASED ON BLENDING CHARACTERISTICS

Patent #	Application #	Title
	13/840342	ATTENTION ESTIMATION TO CONTROL THE DELIVERY OF DATA AND AUDIO/VIDEO CONTENT
	13/842056	DETECTION OF LONG SHOTS IN SPORTS VIDEO
	14/146099	GRANULAR SYSTEM FOR SERVING MULTI-CATEGORY DATA
8904425 B2	13/862310	METHOD FOR CONTROLLING AND IMPLEMENTING BLACKOUT IN IPTV NETWORKS
	14/210338	ADAPTIVE RESOURCE MANAGEMENT FOR MULTI-SCREEN VIDEO APPLICATIONS OVER CABLE WI-FI NETWORKS
	14/155170	FRAMEWORK FOR PROVISIONING DEVICES WITH EXTERNALLY ACQUIRED COMPONENT-BASED IDENTITY DATA
	14/202362	ENHANCING TARGETED ADVERTISING IN A HOME NETWORK GATEWAY DEVICE
	14/210292	ENHANCED PLAYLIST DEFINITION AND DELIVERY FOR FAST CHANNEL CHANGE WITH HTTP ADAPTIVE STREAMING
	14/252016	DISPLAYING INFORMATION IN A HIERARCHICAL STRUCTURE
	14/164627	GENERIC TLV GENERATOR AND PARSER FOR MESSAGE EXCHANGING
	14/165824	SELECTIVE DATA SYNCHRONIZATION AND TRANSFER TO REMOTE DISTRIBUTED DATABASE SERVERS

Patent #	Application #	Title
	13/949890	Maximum Value Displayed Content Feature
	14/062143	COMPUTING AND REPORTING LATENCY IN PRIORITY QUEUES
	13/857550	INTERACTIVE METHOD AND APPARATUS FOR MIXED MEDIA INTERACTIVE METHOD AND APPARATUS FOR MIXED MEDIA
	13/857567	SYSTEM TO GENERATE A MIXED MEDIA EXPERIENCE
9064189	13/841969	PLAYFIELD DETECTION AND SHOT CLASSIFICATION IN SPORTS VIDEO
	13/858921	SYSTEM FOR AND METHOD OF DETECTING STROBE USING SPATIAL FEATURES IN VIDEO FRAMES
8891021 B2	13/858923	SYSTEM AND METHOD OF DETECTING STROBE USING TEMPORAL WINDOW
	13/975,839	LEGIBILITY ENHANCEMENT FOR A LOGO, TEXT OR OTHER REGION OF INTEREST IN VIDEO
	14/278297	AUTOMATIC VIDEO COMPARISON OF THE OUTPUT OF A VIDEO DECODER
	14/212033	METHOD AND APPARATUS FOR GROUP LICENSING OF DEVICE FEATURES
	14/017,341	FFT Tap WiFi Extension Device
	14/210362	Runway Chat
	13/843922	CATV VIDEO AND DATA TRANSMISSION SYSTEM WITH RF AND DIGITAL COMBINING NETWORK

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	13/843950	CATV VIDEO AND DATA TRANSMISSION SYSTEM WITH HYBRID INPUT
9032468 B2	13/843970	CATV VIDEO AND DATA TRANSMISSION SYSTEM WITH AUTOMATIC DISPERSION COMPENSATION
	13/843996	CATV VIDEO AND DATA TRANSMISSION SYSTEM WITH AUTOMATIC PARAMETER CONTROL
	13/844098	CATV VIDEO AND DATA TRANSMISSION SYSTEM WITH RF INPUT
	13/844115	CATV VIDEO AND DATA TRANSMISSION SYSTEM WITH DIGITAL INPUT
	13/844132	CATV VIDEO AND DATA TRANSMISSION SYSTEM WITH SIGNAL INSERTION
	14/210351	PROTECTION OF CONTROL WORDS EMPLOYED BY CONDITIONAL ACCESS SYSTEMS
	14/263071	ERROR RECOVERY FOR VIDEO DELIVERY VIA A SEGMENTATION PROCESS
	14/214206	METHOD AND APPARATUS FOR STREAMING VIDEO
	14/214592	File Transfer Based Upon Streaming Format
	14/214460	Remote Access to Streaming Video
	14/214485	Restriction Lists for Remote Video Transfer
	14/213202	METHOD AND APPARATUS FOR SECURE STORAGE AND RETRIEVAL OF LIVE OFF DISK MEDIA PROGRAMS

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	14/215848	DLNA/DTCP STREAM CONVERSION FOR SECURE MEDIA PLAYBACK
	14/213150	ADAPTIVE SAMPLING FILTER PROCESS FOR SCALABLE VIDEO CODING
	14/207479	SYSTEM AND METHOD FOR CONTROLLING AND MANAGING DIGITAL MEDIA RECORDING
	14/017,455	Averting Ad Skipping in Adaptive Bit Rate Systems
	14/246674	Individual Buffer Management for Layers in Scalable HEVC
	14/246699	Signaling for Addition or Removal of Layers in Scalable HEVC Layer
	14/247560	DERIVATION OF RESAMPLING FILTERS FOR SCALABLE VIDEO CODING
	14/250349	RE-SAMPLING WITH PHASE OFFSET ADJUSTMENT FOR LUMA AND CHROMA TO SELECT FILTERS IN SCALABLE VIDEO CODING
	14/250352	RE-SAMPLING WITH PHASE OFFSET ADJUSTMENT FOR LUMA AND CHROMA TO SIGNAL ADAPTIVE FILTERS IN SCALABLE VIDEO CODING
6816463	10/008018	METHOD FOR MEASURING CHANNEL CHARACTERISTICS WITH THE INTERNET CONTROL MESSAGE PROTOCOL
7457313	11/013226	HIERARCHICAL PRIORITIZED ROUND ROBIN (HPRR) SCHEDULING

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5539823	08/281415	SUBSCRIPTION TELEVISION PICTURE SCRAMBLING AND DESCRAMBLING SYSTEM PROVIDING COMPATIBILITY WITH DIFFERENT SUCH SYSTEMS
5541666	08/271026	METHOD AND APPARATUS FOR OVERLAYING DIGITALLY GENERATED GRAPHICS OVER AN ANALOG VIDEO SIGNAL
5801789	08/620924	METHOD AND APPARATUS FOR OVERLAYING DIGITALLY GENERATED GRAPHICS OVER AN ANALOG VIDEO SIGNAL
6137837	09/012815	MOTION ESTIMATION FOR DIGITAL VIDEO WITH REDUCED NUMBER OF SEARCH WINDOW PIXELS
6084641	08/906809	FADE DETECTOR FOR DIGITAL VIDEO
6157726	08/986137	CIRCUIT AND METHOD OF PREVENTING AUDIO POP IN AN ELECTRONIC AUDIO DEVICE
6154633	09/001631	DIGITAL QAM MODULATOR USING POST FILTERING CARRIER RECOMB INATION
6151362	09/369624	JOINT RATE CONTROL FOR STEREOSCOPE VIDEO CODING
7027453	09/977115	SPANNING TREE ALTERNATE ROUTING BRIDGE PROTOCOL
7151875	10/638972	METHOD AND APPARATUS FOR BALANCING THE POWER OF OPTICAL CHANNELS TRAVERSING AN

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		OPTICAL ADD DROP MULTIPLEXER
	29/478010	DISPLAY SCREEN OR PORTION THEREOF WITH GRAPHICAL USER INTERFACE
	09/782896	METHOD AND SYSTEM FOR 3-D ENHANCED ADVERTISING FOR TV BROADCAST OF 2-D VIDEO
8130233	13/095311	MODIFYING SCREEN OBJECTS
	09/661164	SYSTEM AND METHOD FOR INSERTION OF RECORDED MEDIA INTO A BROADCAST
	09/875460	REMOTE CONTROL OF TV PROGRAM SCHEDULING
	12/368570	ELECTRONIC PROGRAMMING GUIDE
8104061	12/407897	UNIVERSAL PROGRAMMING SYSTEM AND METHOD FOR ELECTRONIC PROGRAMMING GUIDE
	10/171230	METHOD FOR DISPLAYING CHANNEL LISTINGS IN AN ELECTRONIC PROGRAM GUIDE AND AN ELECTRONIC PROGRAM GUIDE IMPLEMENTING THE METHOD
8191092	10/177502	METHOD AND SYSTEM FOR REPLACING/OBSCURING TITLES AND DESCRIPTIONS OF RECORDED CONTENT
	13/091035	CONTROLLING ACCESS
6570586	09/390047	BANDWIDTH EFFECTIVE METHOD FOR COMMUNICATING

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		INTERACTIVE LINKS
6229541	09/417991	USE OF TEMPLATES FOR COST-EFFECTIVE SECURE LINKING OF VIDEO STREAM OBJECTS
7013428	09/817441	USE OF TEMPLATES FOR COST-EFFECTIVE SECURE LINKING OF VIDEO STREAM OBJECTS
	12/363910	METHOD AND APPARATUS FOR GENERATION OF A PREFERRED BROADCASTED PROGRAMS LIST
	09/996456	METHOD AND SYSTEM FOR PERFORMING AN ALPHABETIC SEARCH USING A SINGLE APPLICATION OF KEYS
	10/085886	METHOD AND SYSTEM FOR ADVERTISING BASED ON THE CONTENT OF SELECTED CHANNELS OR BRADCASTED PROGRAMS
	13/099071	PROGRAMMING AND CONTENT RECOMMENDATIONS
8108487	12/856977	SIMULCAST WEB PAGE DELIVERY
	10/087975	MULTIMEDIA INTERACTIVE DEVICE FUNCTION SELECTION BASED UPON BUTTON DEPRESSION DURATION
8078967	09/997713	METHOD AND APPARATUS FOR VIRTUAL EDITING OF MULTIMEDIA PRESENTATIONS
7801183	11/808,631	SYNCHRONOUS TRANSMISSION OVER PACKET BASED NETWORK

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	14/304454	VIDEO QUALITY OF SERVICE MANAGEMENT AND CONSTRAINED FIDELITY CONSTANT BIT RATE VIDEO ENCODING SYSTEMS AND METHODS
7073075	09/997103	IMPROVED TELEPHONY END USER INTERFACE IN AN HFC ACCESS NETWORK
6466564	09/152643	TWO DIMENSIONAL INTERLEAVE PROCESS FOR CDMA TRANSMISSIONS OF ONE DIMENSIONAL TIMESLOT DATA
6243369	09/074036	APPARATUS AND METHOD FOR SYNCHRONIZING AN SCDMA UPSTREAM OR ANY OTHER TYPE UPSTREAM TO AN MCNS DOWNSTREAM OR ANY OTHER TYPE DOWNSTREAM WITH A DIFFERENT CLOCK RATE THAN THE UPSTREAM
6353604	09/798845	APPARATUS AND METHOD FOR SYNCHRONIZING AN SCDMA UPSTREAM OR ANY OTHER TYPE UPSTREAM TO AN MCNS DOWNSTREAM OR ANY OTHER TYPE DOWNSTREAM WITH A DIFFERENT CLOCK RATE THAN THE UPSTREAM
	62/152384	ARCHIVING PERSONALIZED VIDEO CLIPS OF STORED MEDIA
	62/168243	IMPROVED SATELLITE RECEIVER INSTALLATION
	62/171466	DOCSIS PROVISIONING AND MANAGEMENT OVER NON-DOCSIS BROADBAND INTERFACE

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	62/157838	SELECTIVE PARTIAL RECORDINGS AND CONTENT SYNCHRONIZATION BETWEEN GATEWAY AND CLIENT
	62/160887	ENHANCED DATA EXCHANGE BETWEEN CUSTOMER PREMISE EQUIPMENT DEVICE AND GRAPHICAL USER INTERFACE SERVER
	62/152205	QR MODEL RESET FOR SCENE CHANGES FOR PICTURE-LEVEL RATE CONTROL FOR HEVC ENCODER
	62/152240	BIT ESTIMATE FOR QP SELECTION FOR PICTURE-LEVEL RATE CONTROL FOR HEVC ENCODER
	62/152223	OUTLIER PICTURE REMOVAL FOR PICTURE-LEVEL RATE CONTROL FOR HEVC ENCODER
	62/171365	PROFILE BSAED VIEWING ON CUSTOMER PREMISE EQUIPMENT DEVICE
	62/153838	METHODS TO ENABLE AN HLS SINK TO DO TRICKPLAYS AGAINST A DLNA SOURCE
	62/157824	INTELLIGENTMULTIMEDIA CONTENT RE-POSITIONING
	62/162864	TRANSPORT OF SHVC AND SUPPORT FOR HDR (HIGH DYNAMIC RANGE) AND WCG (WIDE COLOR GAMUT) EXTENSIONS/ENHANCEMENTS

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	62/149837	MODIFICATION OF UNIFICATION OF INTRA BLOCK COPY AND INTER SIGNALING RELATED SYNTAX AND SEMANTICS
	62/158099	MULTI BSS WPS ACTIVATION OF BSS ACIVITY
	62/169052	CPE TO DLNA CLIENT STREAMING
	62/150457	METHODS AND PRACTICES FOR CODING HIGH DYNAMIC RANGE AND WIDE COLOR GAMUT SEQUENCES
	62/172397	RECORDING, PLAYBACK AND SEARCHING OF CONTENT BASED UPON SCENE TYPE
	62/154202	COMPLEXITY REDUCTION ALGORITHM FOR REFERENCE PICTURE SELECTION
	62/150476	METHODS AND PRACTICES FOR SCALABLE CODING OF HIGH DYNAMIC RANGE AND WIDE COLOR GAMUT SEQUENCES
	62/149961	IDENTIFYING SET-TOP MOVEMENT THROUGH ELECTRONIC FINGERPRINT CHARACTERIZATION ANALYTICS
	62/163690	WIRELESS SETUP FOR MULTIPLE SERVICE SETS ON A WIRELESS NETWORK
	62/153759	MULTIPLE SERVICE SUPPORT FOR WIRELESS PROVISIONING SERVICES
	62/167084	SYSTEM TO DETECT ADVERTSIEMENTS USING USER BEHAVIOR INFORMATION

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	62/171350	VIRTUAL WALLET FOR CUSTOMER PREMISE EQUIPMENT DEVICE
	14/708549	LOGO PRESENCE DETECTION BASED ON BLENDING CHARACTERISTICS
	14/722918	DEDUPLICATION OF SCHEDULED RECORDINGS
	14/698042	USER INTERFACE WITH VIDEO FRAME TILES
	14/718203	SIGNALING FOR ADDITION OR REMOVAL OF LAYERS IN SCALABLE VIDEO
	14/718216	SIGNALING AND SELECTION FOR THE ENHANCEMENT OF LAYERS IN SCALABLE VIDEO
	14/702007	REFERENCE LAYER AND SCALED REFERENCE LAYER OFFSETS FOR SCALABLE VIDEO CODING
	14/722205	SYSTEM AND APPARATUS FOR FAULT-TOLERANT CONFIGURATION AND ORCHESTRATION AMONG MULTIPLE DRM SYSTEMS
	14/727827	ON REFERENCE LAYER AND SCALED REFERENCE LAYER OFFSET PARAMETERS FOR INTER-LAYER PREDICTION IN SCALABLE VIDEO CODING
	14/723573	CONTENT AWARE SCHEDULING IN A HEVC DECODER OPERATING ON A MULTI-CORE PROCESSOR PLATFORM

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	14/723786	ACCELERATION OF CONTEXT ADAPTIVE BINARY ARITHMETIC CODING (CABAC) IN VIDEO CODECS
	14/718188	INDIVIDUAL BUFFER MANAGEMENT IN TRANSPORT OF SCALABLE VIDEO
	14/711175	ALARM SYSTEM MONITOR SENSOR FOR MULTIMEDIA TERMINAL ADAPTER
	14/710977	A CONTENT STREAMING APPARATUS FOR TRANSFERRING A STREAMING SESSION TO ANOTHER APPARATUS
	14/727233	ANTICIPATORY PROGRAM MAP TABLE INFORMATION ACQUISITION