507123940 02/10/2022 PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT7170780

| SUBMISSION TYPE: | | | NEW ASSIGNMENT | | | |
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| CONVEYING PARTY | DATA | | | | | |
| | | 1 | lame | | Executio | n Date |
| SONIC IP, INC. | | | | | 02/12/2018 | } |
| RECEIVING PARTY D | ΑΤΑ | | | | | |
| Name: | DIVX C | F HOL | DINGS LLC | | | |
| Street Address: | 1345 A | VENU | E OF THE AMERICAS | | | |
| Internal Address: | 46TH F | LOOR | | | | |
| City: | NEW Y | ORK | | | | |
| State/Country: | NEW Y | ORK | | | | |
| Postal Code: | 10105 | | | | | |
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| CORRESPONDENCE | | 17485 | 163 | | | |
| CORRESPONDENCE Fax Number: | DATA | (949)8 | 52-0004 | | | |
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| CORRESPONDENCE Fax Number: Correspondence will using a fax number, i Phone: Email: Correspondent Name Address Line 1: Address Line 2: Address Line 2: Address Line 4: ATTORNEY DOCKET I NAME OF SUBMITTER SIGNATURE: DATE SIGNED: Total Attachments: 17 ource=03639CON2ass | DATA be sent to if provided : NUMBER: R: signment2# signment2# | (949)8 b the e 1; if tha 94985 pair@l KPPB 2190 S SUITE ANAH page1 tpage2 tpage3 | 52-0004 -mail address first; if that at is unsuccessful, it will 20000 <ppb.com LLP S. TOWNE CENTRE PLACE 300 EIM, CALIFORNIA 92806 D1-03639.CON2 GRACE KANG /Grace Kang/ 02/10/2022 .tif .tif .tif</ppb.com | be sen | | sent |

source=03639CON2assignment2#page5.tif source=03639CON2assignment2#page6.tif source=03639CON2assignment2#page7.tif source=03639CON2assignment2#page8.tif source=03639CON2assignment2#page9.tif source=03639CON2assignment2#page10.tif source=03639CON2assignment2#page11.tif source=03639CON2assignment2#page12.tif source=03639CON2assignment2#page13.tif source=03639CON2assignment2#page14.tif source=03639CON2assignment2#page14.tif source=03639CON2assignment2#page15.tif source=03639CON2assignment2#page16.tif source=03639CON2assignment2#page16.tif Form **PTO-1595** (Rev. 6-18) OMB No. 0651-0027 (exp. 06/30/2021) U.S. DEPARTMENT OF COMMERCE United States Patent and Trademark Office

| | RM COVER SHEET |
|---|---|
| PATENT | S ONLY |
| To the Director of the U.S. Patent and Trademark Office: Pleas | e record the attached documents or the new address(es) below. |
| 1. Name of conveying party(ies) | 2. Name and address of receiving party(ies) |
| Sonic IP, Inc. | Name: DivX CF Holdings LLC |
| | Internal Address: 46th Floor |
| Additional name(s) of conveying party(ies) attached? | |
| 3. Nature of conveyance/Execution Date(s): | Street Address: 1345 Avenue of the Americas |
| Execution Date(s) February 12, 2018 | |
| Assignment Merger | |
| Security Agreement Change of Name | City: <u>New York</u> |
| Joint Research Agreement | State: NY |
| Government Interest Assignment | Country: US Zip: 10105 |
| Executive Order 9424, Confirmatory License | CountryZip |
| Other | Additional name(s) & address(es) attached? 🌅 Yes 🔳 No |
| | document serves as an Oath/Declaration (37 CFR 1.63). |
| A. Patent Application No.(s) | B. Patent No.(s) |
| 17/485,163 | |
| | |
| Additional numbers at | ached? Yes Mo |
| 5. Name and address to whom correspondence | 6. Total number of applications and patents |
| | |
| concerning document should be mailed: | |
| Name: KPPB LLP | involved: 7. Total fee (37 CFR 1.21(h) & 3.41) \$ |
| - | 7. Total fee (37 CFR 1.21(h) & 3.41) \$ |
| Name: KPPB LLP Internal Address: Suite 300 | 7. Total fee (37 CFR 1.21(h) & 3.41) \$ |
| Name: KPPB LLP | 7. Total fee (37 CFR 1.21(h) & 3.41) \$ Authorized to be charged to deposit account Enclosed |
| Name: KPPB LLP Internal Address: Suite 300 Street Address: 2190 S. Towne Centre Place | 7. Total fee (37 CFR 1.21(h) & 3.41) \$ Authorized to be charged to deposit account Enclosed None required (government interest not affecting title) |
| Name: KPPB LLP Internal Address: Suite 300 Street Address: 2190 S. Towne Centre Place City: Anaheim | 7. Total fee (37 CFR 1.21(h) & 3.41) \$ Authorized to be charged to deposit account Enclosed |
| Name: KPPB LLP Internal Address: Suite 300 Street Address: 2190 S. Towne Centre Place | 7. Total fee (37 CFR 1.21(h) & 3.41) \$ Authorized to be charged to deposit account Enclosed None required (government interest not affecting title) |
| Name: KPPB LLP Internal Address: Suite 300 Street Address: 2190 S. Towne Centre Place City: Anaheim State: CA Zip: 92806 | 7. Total fee (37 CFR 1.21(h) & 3.41) \$ Authorized to be charged to deposit account Enclosed None required (government interest not affecting title) 8. Payment Information |
| Name: KPPB LLP Internal Address: Suite 300 Street Address: 2190 S. Towne Centre Place City: Anaheim | 7. Total fee (37 CFR 1.21(h) & 3.41) \$ Authorized to be charged to deposit account Enclosed None required (government interest not affecting title) 8. Payment Information |
| Name: KPPB LLP Internal Address: Suite 300 Street Address: 2190 S. Towne Centre Place City: Anaheim State: CA Zip: 92806 Phone Number: 949.852.0000 | 7. Total fee (37 CFR 1.21(h) & 3.41) \$ Authorized to be charged to deposit account Enclosed None required (government interest not affecting title) 8. Payment Information |
| Name: KPPB LLP Internal Address: Suite 300 Street Address: 2190 S. Towne Centre Place City: Anaheim State: CA Zip: 92806 Phone Number: 949.852.0000 Docket Number: D1-03639.CON2 | 7. Total fee (37 CFR 1.21(h) & 3.41) \$ Authorized to be charged to deposit account Enclosed None required (government interest not affecting title) 8. Payment Information |
| Name: KPPB LLP Internal Address: Suite 300 Street Address: 2190 S. Towne Centre Place City: Anaheim State: CA Zip: 92806 Phone Number: 949.852.0000 Docket Number: D1-03639.CON2 Email Address: pair@kppb.com 9. Signature: /Paul J. Lee/ Signature | 7. Total fee (37 CFR 1.21(h) & 3.41) \$ Authorized to be charged to deposit account Enclosed None required (government interest not affecting title) 8. Payment Information Deposit Account Number Authorized UserName |
| Name: KPPB LLP Internal Address: Suite 300 Street Address: 2190 S. Towne Centre Place City: Anaheim State: CA Zip: 92806 Phone Number: 949.852.0000 Docket Number: D1-03639.CON2 Email Address: pair@kppb.com 9. Signature: /Paul J. Lee/ Signature Signature | 7. Total fee (37 CFR 1.21(h) & 3.41) \$ Authorized to be charged to deposit account Enclosed None required (government interest not affecting title) 8. Payment Information Deposit Account Number Authorized UserName February 10, 2022 Date Total number of pages including cover 17 |
| Name: KPPB LLP Internal Address: Suite 300 Street Address: 2190 S. Towne Centre Place City: Anaheim State: CA Zip: 92806 Phone Number: 949.852.0000 Docket Number: D1-03639.CON2 Email Address: pair@kppb.com 9. Signature: /Paul J. Lee/ Signature | 7. Total fee (37 CFR 1.21(h) & 3.41) |

PATENT ASSIGNMENT

THIS PATENT ASSIGNMENT ("Patent Assignment") is made as of February 12, 2018 by Sonic IP, Inc., a California corporation ("Sonic IP"), DivX, LLC, a Delaware limited liability company ("DivX" and together with Sonic IP the "Assignors" and each an "Assignor"), and DivX CF Holdings LLC, a Delaware limited liability company (the "Assignee"). Capitalized terms used herein but not otherwise defined shall have the meanings ascribed to them in the Purchase Agreement (as defined below).

WHEREAS, Neulion, Inc., a Delaware corporation ("Parent") and Assginee are parties to that certain Purchase Agreement, dated as of December 18, 2017 (the "Purchase Agreement"), pursuant to which Assignee has agreed to purchase, and Parent has agreed to cause each Assignor to sell, convey, assign, transfer and deliver to Assignee, all of such Assignor's right, title and interest in, to and under the Business IP on the terms and conditions set forth in the Purchase Agreement; and

WHEREAS, pursuant to the Purchase Agreement, Parent has agreed to cause each Assignor to execute and deliver this Patent Assignment by which the Patents set forth in Exhibit <u>A</u> hereto (the "<u>Transferred Patents</u>") are assigned and conveyed by such Assignor to Assignee at the Closing.

NOW, THEREFORE, in consideration of the foregoing premises and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and intending to be legally bound hereby, upon the terms and subject to the conditions set forth in the Purchase Agreement, it is hereby agreed that:

1. Patent Conveyance.

Each Assignor does hereby irrevocable and unconditionally:

sell, transfer, convey, assign and deliver to Assignee all of such Assignor's right, a. title and interest in, to and under: (i) the Transferred Patents and the inventions disclosed therein, including any patents issuing on any applications included in the Transferred Patents and all reissues, reexaminations, extensions, continuations, continuations in part, continuing prosecution applications, requests for continuing examinations and divisionals of any of the Transferred Patents and all foreign counterparts relating to any of the foregoing, including, without limitation, certificates of invention, utility models and other governmental grants or issuances and any patents and patent applications that claim priority from any of the foregoing; (ii) all causes of action (whether known or unknown or whether currently pending, filed, or otherwise) and other enforcement rights under, or on account of, the Transferred Patents, including, without limitation, all causes of action and other enforcement rights for (A) damages, (B) injunctive relief, and (C) any other remedies of any kind for past, current and future infringement; and (iii) all rights to collect royalties or other payments under or on account of the Transferred Patents due or payable on or after the Effective Date, the same to be held by Assignee for Assignee's own use and enjoyment, and for the use and enjoyment of Assignee's successors, assigns and other legal representatives, as fully and entirely as the same would have been held and enjoyed

by such Assignor if this Assignment had not been made, including all rights therein provided by international conventions and treaties.

b. agree to execute applications, assignments, declarations, affidavits, and any other papers as reasonably necessary to perfect Assignee's right, title and interest throughout the world in all Transferred Patents assigned to Assignee hereunder and, at Assignee's sole expense, assist Assignee as reasonably necessary in perfecting such right, title and interest in Assignee.

2. <u>Terms of the Purchase Agreement</u>. This Patent Assignment is being delivered pursuant to the Purchase Agreement, and is subject to the representations, warranties, conditions, limitations, covenants and agreements set forth in the Purchase Agreement. Each Assignor and Assignee acknowledge and agree that the representations, warranties, conditions, limitations, covenants and agreements contained in the Purchase Agreement shall not be superseded hereby, but shall remain in full force and effect to the full extent provided therein. The rights and remedies of Assignee, Assignors or Parent under the Purchase Agreement shall not be deemed to be enlarged, modified, or in any way altered by the terms of this Patent Assignment. In the event of any conflict between the terms of the Purchase Agreement and the terms of this Patent Assignment, the terms of the Purchase Agreement shall prevail.

3. <u>Counterparts</u>. This Patent Assignment may be executed in two or more counterparts, all of which shall be considered one and the same instrument and shall become effective when one or more counterparts have been signed by each of the parties and delivered to the other party.

4. <u>Governing Law</u>. This Patent Assignment and all disputes or controversies arising out of or relating to this Patent Assignment or the transactions contemplated hereby shall be governed by, and construed in accordance with, the internal laws of the State of Delaware, without regard to the laws of any other jurisdiction that might be applied because of the conflicts of laws principles of the State of Delaware.

[Signature Page Follows]

IN WITNESS WHEREOF, each Assignor has caused this Patent Assignment to be executed as of the date first above written.

Assignor:

DivX, LLC

By: ______ Name: Alexander G. Arato Title: General Counsel

Sonic IP, Inc.

| By: | |
|--------|---------|
| Name: | |
| Title: | <u></u> |

The Assignee hereby accepts assignment of the Transferred Patents.

| Assignee: | Λ | |
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| DivX CF Hole | tings LLC | |
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| Mamal | STANTINE M. DAKO | LIAS |

[Signature Page to Patent Assignment]

IN WITNESS WHEREOF, each Assignor has caused this Patent Assignment to be executed as of the date first above written.

Assignor:

By: Mander Harr

Name: Alexander G. Arato Title: General Counsel

Sonic IP, Inc.

| By: | |
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| Name: | |
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The Assignce hereby accepts assignment of the Transferred Patents.

Assignee:

DivX CF Holdings LLC

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IN WITNESS WHEREOF, each Assignor has caused this Patent Assignment to be executed as of the date first above written.

'Assignor:

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| By: | | \mathbb{Z} | 2 | | Cummun | |
| Name: | Roy E. | Reich | bach | | | |
| Title: | Preside | nt | | | | |

Sec.

The Assignee hereby accepts assignment of the Transferred Patents.

Assignee:

DivX CF Holdings LLC

| By: | |
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| Name: | A MARK SALAR A MARKA |
| Title: | |

[Signature Page to Patent Assignment]

Exhibit A to the Patent Assignment

| | | | | | | <u> </u> |
|-------------------|---------|---------------|--------------------|---|----------------------|--------------------|
| Internal File No. | Country | Serial No. | Filing Date | Title | Patent No. | Grant Date |
| 00040 | US | 11230794 | Sep 20, 2005 | Video Deblocking Filter | 7729426 | Jun 1, 2010 |
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| 01167.CON2 | US | 15229030 | Aug 4, 2016 | Hierarchical and Reduced Index Structures for Multimedia Files | | |
| 01167.JP | lb | 2010534264 | Nov 17, 2008 | Hierarchical and Reduced Index Structures for Multimedia Files | 5513400 | Apr 4, 2014 |
| 01167.SG | SG | 2010030567 | Nov 17, 2008 | Hierarchical and Reduced Index Structures for Multimedia Files | 161354 | Dec 14 2012 |
| 01221 | US | 12260404 | Oct 29, 2008 | Application Enhancement Tracks | 8997161 | Mar 31 2015 |
| 01221.CN | CN | 2008801275964 | Dec 22, 2008 | Application Enhancement Tracks | 200880127596.4 | Sep 30 2015 |

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| 01221.DE | DE | 088701529 | Dec 22, 2008 | Application Enhancement Tracks | 602008043390.0 | Apr 6, 2016 |
|-------------------|-----|---------------|--------------------|--|------------------------|--------------------|
| 01221.EP | EP | 088701529 | Dec 22, 2008 | Application Enhancement Tracks | 2238752 | Apr 6, 2016 |
| 01221.FR | FR | 088701529 | Dec 22, 2008 | Application Enhancement Tracks | 2238752 | Apr 6, 2016 |
| 01221.GB | GB | 088701529 | Dec 22, 2008 | Application Enhancement Tracks | 2238752 | Apr 6, 2016 |
| 01221.HK | HK | 111077352 | Dec 22, 2008 | Systems and Methods for Encoding Application Enhancement Tracks for Inclusion with Media Files | 1153597B | May 6, 2016 |
| 01221.SG.DIV | SG | 2012096723 | Dec 22, 2008 | Application Enhancement Tracks | 186690 | May 31, 2016 |
| 01239 | US | 12272782 | Nov 17, 2008 | Chunk Header Incorporating Binary Flags and Correlated Variable-Length Fields | 8301793 | Oct 30, 2012 |
| 01239.CON | US | 13662687 | Oct 29, 2012 | Chunk Header Incorporating Binary Flags and Correlated Variable-Length Fields | 8942548 | Jan 27, 2015 |
| 01239.CON2 | US | 14594005 | Jan 9, 2015 | Chunk Header Incorporating Binary Flags and Correlated Variable-Length Fields | | 1 |
| 01239.EP | EP | 088493390 | Nov 17, 2008 | Chunk Header Incorporating Binary Flags and Correlated Variable-Length Fields | | |
| 01239.НК | HK | 111017578 | Nov 17, 2008 | Chunk Header Incorporating Binary Flags and Correlated Variable-Length Fields | | - |
| 01393 | US | 12480276 | Jun 8, 2009 | Systems and Methods for Font File Optimization for Multimedia Files | 8289338 | Oct 16, 2012 |
| 01393.SG | SG | 2010072106 | Jun 8, 2009 | Systems and Methods for Font File Optimization for Multimedia Files | 165123 | May 15, 2013 |
| 01457 | US | 12611042 | Nov 2, 2009 | System and Method for Playing Content on Certified Devices | 8631145 | Jan 14, 2014 |
| 01622 | US | 12684002 | Jan 7, 2010 | Singular, Collective and Automated Creation of a Media Guide for Online Content | 8510303 | Aug 13, 2013 |
| 01622.AU | AU | 2010203605 | Jan 7, 2010 | Singular, Collective and Automated Creation of a Media Guide for Online Content | 2010203605 | Sep 24, 2015 |
| 01622.CA | CA | 2749170 | Jan 7, 2010 | Singular, Collective and Automated Creation of a Media Guide for Online Content | 2749170 | Jun 21, 2016 |
| 01622.CN | CN | 2010800073958 | Jan 7, 2010 | Singular, Collective and Automated Creation of a Media Guide for Online Content | ZL 2010 8 0007395.8 | Sep 9, 2015 |
| 01622.CN.DIV | CN | 201510475205X | Jan 7, 2010 | Singular, Collective and Automated Creation of a Media Guide for Online Content | | |
| 01622.CON | US | 13938100 | Jul 9, 2013 | Singular, Collective and Automated Creation of a Media Guide for Online Content | 9201922 | Dec 1, 2015 |
| 01622.CON2 | US | 14924639 | Oct 27, 2015 | Singular, Collective and Automated Creation of a Media Guide for Online Content | 9672286 | Jun 6, 2017 |
| 01622.CON3 | US | 15490718 | Apr 18, 2017 | Singular, Collective, and Automated Creation of a Media Guide for Online Content | | |
| 01622.EP | EP | 107295131 | Jan 7, 2010 | Singular, Collective and Automated Creation of a Media Guide for Online Content | | |
| 01622. J P | J.P | 2011545428 | Jan 7, 2010 | Singular, Collective and Automated Creation of a Media Guide for Online Content | 5681641 | Jan 16, 2015 |
| 01622.KR | KR | 1020117018320 | Jan 7, 2010 | Singular, Collective and Automated Creation of a Media Guide for Online Content | 10-1635876 | Jun 28, 2016 |
| 01622.MX | MX | MXa2011007344 | Jan 7, | Singular, Collective and Automated | 316584 | Dec 17, |

[Exhibit A to Patent Assignment - 3]

| | | | 2010 | Creation of a Media Guide for Online Content | | 2013 |
|-------------------|----|---------------|-------------------------|---|---------|--------------------|
| 01940 | US | 12946631 | Nov 15, | Elementary Bitstream Cryptographic Material Transport Systems and Methods | 8781122 | Jul 15, 2014 |
| 01940.CA | CA | 2782825 | 2010 Nov 15, | Elementary Bitstream Cryptographic Material Transport Systems and Methods | 2782825 | Apr 26, 2016 |
| 01940.CON | US | 14306146 | 2010 Jun 16, 2014 | Elementary Bitstream Cryptographic Material Transport Systems and Methods | 9124773 | Sep 1, 2015 |
| 01940.CON2 | US | 14839783 | Aug 28, 2015 | Elementary Bitstream Cryptographic Material Transport Systems and Methods | 9706259 | Jul 11, 2017 |
| 01940.CON3 | US | 15615626 | Jun 6, 2017 | Elementary Bitstream Cryptographic Material Transport Systems and Methods | | |
| 01940. J P | JP | 2012542061 | Nov 15, 2010 | Elementary Bitstream Cryptographic Material Transport Systems and Methods | 5723888 | Apr 3, 2015 |
| 01940.JP.DIV | JP | 201568797 | Nov 15, 2010 | Elementary Bitstream Cryptographic Material Transport Systems and Methods | 6078574 | Jan 20, 2017 |
| 01970 | US | 12986957 | Jan 7, 2011 | Real Time Flash Based User Interface for Media Plavback Device | 8631407 | Jan 14, 2014 |
| 01974A | US | 13221682 | Aug 30, 2011 | Systems and Methods for Adaptive Bitrate Streaming of Media Stored in Matroska Container Files Using Hypertext Transfer Protocol | 8914534 | Dec 16, 2014 |
| 01974AB.CA | CA | 2823829 | Dec 22, 2011 | Adaptive Bitrate Streaming of Media Stored in Matroska Container Files Using Hypertext Transfer Protocol | | |
| 01974AB.EP | EP | 118552371 | Dec 22, 2011 | Adaptive Bitrate Streaming of Media Stored in Matroska Container Files Using Hypertext Transfer Protocol | | |
| 01974AB.JP | JP | 2013548427 | Dec 22, 2011 | Adaptive Bitrate Streaming of Media Stored in Matroska Container Files Using Hypertext Transfer Protocol | 6038805 | Nov 19 2016 |
| 01974AB.JP.DIV | JP | 2016215144 | Jul 4, 2013 | Systems and Methods for Adaptive Bitrate Streaming of Media Stored in Matroska Container Files Using Hypertext Transfer Protocol | | |
| 01974AB.KR | KR | 1020137020586 | Dec 22, 2011 | Adaptive Bitrate Streaming of Media Stored in Matroska Container Files Using Hypertext Transfer Protocol | | |
| 01974B | US | 13221794 | Aug 30, 2011 | Systems and Methods for Encoding Source Media in Matroska Container Files for Adaptive Bitrate Streaming Using Hypertext Transfer Protocol | 9247312 | Jan 26, 2016 |
| 01974B.CON | US | 15005990 | Jan 25, 2016 | Systems and Methods for Encoding Source Media in Matroska Container Files for Adaptive Bitrate Streaming Using Hypertext Transfer Protocol | | |
| 01978A | US | 13341504 | Dec 30, 2011 | Systems and Methods for Encoding Alternative Streams of Video for Use in Adaptive Bitrate Streaming | 9020039 | Apr 28, 2015 |
| 01978A.CON | US | 14696035 | Apr 24, 2015 | Systems and Methods for Encoding Alternative Streams of Video for Use in Adaptive Bitrate Streaming | 9667967 | May 10, 2017 |
| 01978A.CON2 | US | 15453714 | Mar 8, 2017 | Systems and Methods for Encoding Alternative Streams of Video for Use in Adaptive Bitrate Streaming | | |
| 01978B | US | 13341667 | Dec 30, 2011 | Systems and Methods for Performing Adaptive Bitrate Streaming Based Upon the Delay of Each stream and the Channel Rate | 9021119 | Apr 28, 2015 |
| 02084 | US | 13339992 | Dec 29, 2011 | Systems and Methods for Performing Multiphase Adaptive Bitrate Streaming | 8832297 | Sep 9, 2014 |
| 02089 | US | 13341838 | Dec 30, 2011 | Systems and Methods for Estimating Available Bandwidth and Performing Initial Stream Selection When Streaming | 8812662 | Aug 19, 2014 |

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| | | | | Content | | |
|------------------------|----|---------------|--------------------|--|----------------|--------------------|
| 02089.CON | US | 14461674 | Aug 18, 2014 | Systems and Methods for Estimating Available Bandwidth and Performing Initial Stream Selection When Streaming Content | 9313249 | Apr 12, 2016 |
| 02261 | US | 13339315 | Dec 28, 2011 | Binding of Cryptographic Content Using Unique Device Characteristics with Server Heuristics | 9721071 | Aug 1, 2017 |
| 02262B | US | 13436930 | Mar 31, 2012 | Systems and Methods for Securing Cryptographic Data Using Timestamps | 8938625 | Jan 20, 2015 |
| 02271A | US | 13436888 | Mar 31, 2012 | Method To Identify Consumer Electronics Products | | |
| 02271B | US | 13436898 | Mar 31, 2012 | Systems and Methods for Identifying Consumer Electronic Products Based on a Product Identifier | 9092646 | Jul 28, 2015 |
| 02300A | US | 13341789 | Dec 30, 2011 | Systems and Methods for Automatically Generating Top Level Index Files | 8787570 | Jul 22, 2014 |
| 02300A.CON | US | 14336392 | Jul 21, 2014 | Systems and Methods for Automatically Generating Top Level Index Files | 9270720 | Feb 23, 2016 |
| 02300A.CON2 | US | 15009593 | Jan 28, 2016 | Systems and Methods for Automatically Generating Top Level Index Files | | |
| 02300A.CON3 | US | 15658057 | Jul 24, 2017 | Systems and Methods for Automatically Generating Top Level Index Files | | |
| 02300AB.CN | CN | 2011800740871 | Dec 31, 2011 | Systems and Methods for Automatically Generating Top Level Index Files | 201180074087.1 | |
| 02300AB.CN.DIV | CN | 2016107511168 | Dec 31, 2011 | Systems and Methods for Automatically Generating Top Level Index Files | | |
| 02300AB.CN.DIV .HK. | HK | 171031850 | Dec 31, 2011 | Systems and Methods for Automatically Generating Top Level Index Files | | |
| 02300AB.JP | JP | 2014528376 | Dec 31, 2011 | Systems and Methods for Automatically Generating Top Level Index Files | 6076347 | Jan 20, 2017 |
| 02300AB.JP.DIV | JP | 2015202602 | Dec 31, 2011 | Systems and Methods for Automatically Generating Top Level Index Files | | |
| 02300AB.KR | KR | 1020147005609 | Dec 31, 2011 | Systems and Methods for Automatically Generating Top Level Index Files | | |
| 02300B | US | 13341801 | Dec 30, 2011 | Systems and Methods for Performing Adaptive Bitrate Streaming Using Automatically Generated Top Level Index Files | 8806188 | Aug 12 2014 |
| 02348 | US | 13430032 | Mar 26, 2012 | Selection of Resolutions for Scamless Resolution Switching of Multimedia Content | 9467708 | Oct 11, 2016 |
| 02348.CN | CN | 201280050318X | Aug 30, 2012 | Selection of Resolutions for Seamless Resolution Switching of Multimedia Content | CN103858419B | Oct 26, 2016 |
| 02348.CON | US | 15287608 | Oct 6, 2016 | Selection of Resolutions for Seamless Resolution Switching of Multimedia Content | | - |
| 02348.DE | DE | 128289568 | Aug 30, 2012 | Selection of Resolutions for Seamless Resolution Switching of Multimedia Content | 602012032363.9 | May 10, 2017 |
| 02348.EP | EP | 128289568 | Aug 30, 2012 | Selection of Resolutions for Seamless Resolution Switching of Multimedia Content | 2751984 | May 10, 2017 |
| 02348.FR | FR | 128289568 | Aug 30, 2012 | Selection of Resolutions for Seamless Resolution Switching of Multimedia Content | 2751984 | May 10, 2017 |
| 02348.GB | GB | 128289568 | Aug 30, 2012 | Selection of Resolutions for Scamless Resolution Switching of Multimedia Content | 2751984 | May 10, 2017 |
| | BE | 128289568 | Aug 30, 2012 | Selection of Resolutions for Seamless Resolution Switching of Multimedia Content | 2751984 | May 10, 2017 |
| | CH | 128289568 | Aug 30, 2012 | Selection of Resolutions for Seamless Resolution Switching of Multimedia Content | 2751984 | May 10, 2017 |

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| | IE . | 128289568 | Aug 30, | Selection of Resolutions for Seamless Resolution Switching of Multimedia | 2751984 | May 10, |
|------------|------|---------------|----------------------------|--|---------|----------------------------|
| | LU | 128289568 | 2012 Aug 30, 2012 | Content Selection of Resolutions for Seamless Resolution Switching of Multimedia Content | 2751984 | 2017 May 10, 2017 |
| | MC | 128289568 | Aug 30, 2012 | Selection of Resolutions for Seamless Resolution Switching of Multimedia Content | 2751984 | May 10, 2017 |
| | SK | 128289568 | Aug 30, 2012 | Selection of Resolutions for Seamless Resolution Switching of Multimedia Content | 2751984 | May 10, 2017 |
| 02348.HK | HK | 141085073 | Aug 30, 2012 | Selection of Resolutions for Seamless Resolution Switching of Multimedia | | 2017 |
| 02348.JP | JP | 2014528581 | Aug 30, | Content Selection of Resolutions for Seamless Resolution Switching of Multimedia | 6159329 | Jun 16, 2017 |
| 02348.KR | KR | 1020147005628 | 2012 Aug 30, | Content Selection of Resolutions for Seamless Resolution Switching of Multimedia | | |
| 02349 | US | 13432521 | 2012 Mar 28, 2012 | Content Systems and Methods for Encoding Alternative Streams of Video for Playback on Playback Devices having Predetermined Display Aspect Ratios and Network Connection Maximum Data Rates | 8818171 | Aug 26 2014 |
| 02349.CON | US | 14464146 | Aug 20, 2014 | Systems and Methods for Encoding Alternative Streams of Video for Playback on Playback Devices having Predetermined Display Aspect Ratios and Network Connection Maximum Data Rates | 9510031 | Nov 29 2016 |
| 02349.CON2 | US | 15334068 | Oct 25, 2016 | Systems and Methods for Encoding Alternative Streams of Video for Playback on Playback Devices having Predetermined Display Aspect Ratios and Network Connection Maximum Data Rates | | |
| 02350 | US | 13600046 | Aug 30, 2012 | Systems and Methods for Encoding and Streaming Video Encoded Using a Plurality of Maximum Bitrate Levels | | |
| 02350.CN | CN | 2012800503211 | Aug 30, 2012 | Systems and Methods for Encoding and Streaming Video Encoded Using a Plurality of Maximum Bitrate Levels | | |
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| 02357A | US | 13223186 | Aug 31, 2011 | Systems and Methods for Performing Smooth Visual Search of Media Encoded for Adaptive Bitrate Streaming via Hypertext Transfer Protocol Using Trick Play Streams | 8649669 | Feb 11, 2014 |
| 02357A.CON | US | 14175929 | Feb 7, 2014 | Systems and Methods For Performing Smooth Visual Search of Media Encoded for Adaptive Bitrate Streaming via Hypertext Transfer Protocol Using Trick Play Streams | 9210481 | Dec 8, 2015 |
| 02357AB.EP | EP | 118551035 | Dec 23, 2011 | Systems and Methods for Performing Smooth Visual Search of Media Encoded for Adaptive Bitrate Streaming Using Trick Play Streams | | |
| 02357AB.KR | K.R. | 1020137020594 | Dec 23, 2011 | Systems and Methods for Performing Smooth Visual Search of Media Encoded for Adaptive Bitrate Streaming Using Trick Play Streams | | |
| 02358 | US | 13340594 | Dec 29, 2011 | Systems and Methods for Application Identification | 8799647 | Aug 5, 2014 |

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| 02358.CON | US | 14451299 | Aug 4, 2014 | Systems and Methods for Application Identification | 9268923 | Feb 23, 2016 |
|-------------|----|---------------|--------------------|--|----------------|--------------------|
| 02358.CON2 | US | 15018721 | Feb 8, 2016 | Systems and Methods for Application Identification | | |
| 02358.CON3 | US | 15682453 | Aug 21, 2017 | Systems and Methods for Application Identification | | |
| 02359A | US | 13340623 | Dec 29, 2011 | Systems and Methods for Playing Back Alternative Streams of Protected Content Protected Using Common Cryptographic Information | 8909922 | Dec 9, 2014 |
| 02359A.CON | US | 14564003 | Dec 8, 2014 | Systems and Methods for Playing Back Alternative Streams of Protected Content Protected Using Common Cryptographic Information | 9247311 | Jan 26, 2016 |
| 02359A.CON2 | US | 14970412 | Dec 15, 2015 | Systems and Methods for Playing Back Alternative Streams of Protected Content Protected Using Common Cryptographic Information | 9621522 | Apr 11, 2017 |
| 02359A.CON3 | US | 15481340 | Apr 6, 2017 | Systems and Methods for Playing Back Alternative Streams of Protected Content Protected Using Common Cryptographic Information | | |
| 02359B | US | 13341265 | Dec 30, 2011 | Systems and Methods for Protecting Alternative Streams in Adaptive Bitrate Streaming Systems | 8918636 | Dec 23, 2014 |
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| 02360.CON | US | 14629154 | Feb 23, 2015 | Systems and Methods for Saving Encoded Media Streamed Using Adaptive Bitrate Streaming | 9667684 | May 30, 2017 |
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| 02459A.CON | US | 14567994 | Dec 11, 2014 | Systems and Methods for Enabling Playback of Digital Content Using Electronic Tickets and Ticket Tokens Representing Grant of Access Rights | 9626490 | Apr 18, 2017 |
| 02459A.CON2 | US | 15484534 | Apr 11, 2017 | Systems and Methods for Enabling Playback of Digital Content Using Electronic Tickets and Ticket Tokens Representing Grant of Access Rights | | |
| 02459AB.CN | CN | 2013800083597 | Jan 7, 2013 | Systems and Methods for Accessing Digital Content Using Electronic Tickets and Ticket Tokens | 201380008359.7 | Apr 5, 2017 |
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| 02459AB.KR | KR | 1020147021418 | Jan 7, 2013 | Systems and Methods for Accessing Digital Content Using Electronic Tickets and Ticket Tokens | 10-1707435 | Feb 10, 2017 |
| 02499B | US | 13457911 | Apr 27, 2012 | Systems and Methods for Adaptive Streaming with Augmented Video Stream Transitions Using a Media Server | 9060184 | Jun 16, 2015 |
| 02549 | US | 13536891 | Jun 28, 2012 | Systems and Methods for Fast Video Startup Using Trick Play Streams | 9197685 | Nov 24, 2015 |
| 02550 | US | 13495757 | Jun 13, 2012 | Systems and Methods for Adaptive Streaming Systems with Interactive Video Timelines | 9354799 | May 31, 2016 |

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| 02611A | US | 13539337 | Jun 30, 2012 | Systems and Methods for Compressing Geotagged Video | | |
|-------------|----|---------------|--------------------|---|------------|--------------------|
| 02616A | US | 13629306 | Sep 27, 2012 | System and Methods for Encoding Live Multimedia Content with Synchronized Audio Data | 9281011 | Mar 8, 2016 |
| 02665 | US | 13631017 | Sep 28, 2012 | System and Method for Decreasing an Initial Buffering Period of an Adaptive Streaming System | | |
| 02711 | US | 13797829 | Mar 12, 2013 | Systems and Methods for Region of Interest Background Smoothing and Compression Enhancement | 8731282 | May 20, 2014 |
| 02948 | US | 13906952 | May 31, 2013 | Synchronizing Multiple Over the Top Streaming Clients | 9380099 | Jun 28, 2016 |
| 02948.CN | CN | 2014800309545 | May 30, 2014 | Synchronizing Multiple Over The Top Streaming Clients | | |
| 02948.CON | US | 15192695 | Jun 24, 2016 | Synchronizing Multiple Over the Top Streaming Clients | 9648362 | May 9, 2017 |
| 02948.CON2 | US | 15587200 | May 4, 2017 | Synchronizing Multiple Over the Top Streaming Clients | | |
| 02948.EP | EP | 148050263 | May 30, 2014 | Synchronizing Multiple Over The Top Streaming Clients | | |
| 02948.HK | HK | 161049806 | May 30, 2014 | Synchronizing Multiple Over The Top Streaming Clients | | |
| 02948.JP | JP | 2016517052 | May 30, 2014 | Synchronizing Multiple Over The Top Streaming Clients | | |
| 02948.KR | KR | 1020157037083 | May 30, 2014 | Synchronizing Multiple Over the Top Streaming Clients | 10-1748198 | Jun 12, 2017 |
| 02949 | US | 13907791 | May 31, 2013 | Playback Synchronization Across Playback Devices | 9100687 | Aug 4, 2015 |
| 02949.CON | US | 14814247 | Jul 30, 2015 | Playback Synchronization Across Playback Devices | 9432718 | Aug 30 2016 |
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| 03259B | US | 14144268 | Dec 30, 2013 | Systems and Methods for Playing Adaptive Bitrate Streaming Content by Multicast | 9386067 | Jul 5, 2016 |
| 03259B.CON | US | 15190069 | Jun 22, 2016 | Systems and Methods for Playing Adaptive Bitrate Streaming Content by Multicast | 9774646 | Sep 26, 2017 |
| 03259B.CON2 | US | 15691616 | Aug 30, 2017 | Systems and Methods for Playing Adaptive Bitrate Streaming Content by Multicast | | |
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[Exhibit A to Patent Assignment - 8]

| 03351A.CON | US | 14810345 | Jul 27, 2015 | Network Video Streaming with Trick Play Based on Separate Trick Play Files | 9712890 | Jul 18, 2017 |
|-------------|-----|---------------------|--------------------|---|---------|-----------------|
| 03351A.CON2 | US | 15651817 | Jul 17, 2017 | Network Video Streaming with Trick Play Based on Separate Trick Play Files | | |
| 03427 | US | 14679469 | Apr 6, 2015 | Systems and Methods for Encoding and Playing Back Video at Different Frame Rates Using Enhancement Layers | | |
| 03510 | US | 14728997 | Jun 2, 2015 | Systems and Methods for Binding Content Playback to the Pairing of a Playback Device and Removable Memory Storage Device | 9798865 | Oct 24, 2017 |
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| 03639.KR | KR | 1020177023590 | Feb 26, 2016 | Systems and Methods for Frame Duplication and Frame Extension in Live | | |
|--------------------|----|---------------------------------|--------------------------|--|---------|--------------------|
| 03639.PCT | wo | PCTUS20160199 55 | Feb 26, 2016 | Video Encoding and Streaming Systems and Methods for Frame Duplication and Frame Extension in Live | | |
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| | | | 2016 | Duplication and Frame Extension in Live Video Encoding and Streaming | | |
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| 03762.CN | CN | 2016800049246 | 2016 Jan 6, | Sharing Content Between Devices Systems and Methods for Encoding and | | |
| 03762.EP | EP | 167353614 | 2016 Jan 6, | Sharing Content Between Devices Systems and Methods for Encoding and | | |
| 03762.JP | JP | 2017535744 | 2016 Jan 6, | Sharing Content Between Devices Systems and Methods for Encoding and | | |
| 03762.KR | KR | 1020177021754 | 2016 Jan 6, | Sharing Content Between Devices Systems and Methods for Encoding and | | |
| 03762.PCT | wo | PCTUS20160123 | 2016 Jan 6, | Sharing Content Between Devices Systems and Methods for Encoding and | | |
| 03783 | US | 48 15085598 | 2016 Mar | Sharing Content Between Devices Systems and Methods for Quick Start-Up | | |
| | | | 30, 2016 | of Playback | | |
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[Exhibit A to Patent Assignment - 11]