04/17/2017 504324592

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4371276

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
CYRUS HALL	04/03/2017
DANIEL LIN	04/05/2017
MACIEJ LASZCZ	04/03/2017
LUKE CURLEY	04/03/2017
MATTHEW LOUIS SZATMARY	04/03/2017
ABHINAV KAPOOR	04/06/2017
DANIEL ARTHUR MCCLAIN	04/03/2017
DIANA LU	04/03/2017
SCOTT WANG	04/03/2017
SPENCER NELSON	04/04/2017
PHILLIP CONOVER	04/03/2017
SCOTT RABIN	04/06/2017
JORGE ARTURO VILLATORO	04/17/2017

#### **RECEIVING PARTY DATA**

Name:	TWITCH INTERACTIVE, INC.
Street Address:	225 BUSH STREET
City:	SAN FRANCISCO
State/Country:	CALIFORNIA
Postal Code:	94104

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15472628

#### **CORRESPONDENCE DATA**

**Fax Number:** (215)568-3439

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: 215-568-3100

Email: Assignments@bakerlaw.com Correspondent Name: **BAKER & HOSTETLER** Address Line 1: 2929 ARCH STREET

PATENT

REEL: 042031 FRAME: 0324 504324592

	CIRA CENTRE, 12TH FLOOR PHILADELPHIA, PENNSYLVANIA 19104-2891	
ATTORNEY DOCKET NUMBER:	101058.000577	
NAME OF SUBMITTER:	DEBORAH WHIPPLE	
SIGNATURE:	/Deborah Whipple/	
DATE SIGNED:	04/17/2017	

This document serves as an Oath/Declaration (37 CFR 1.63).

#### **Total Attachments: 17**

source=ASSIGNMENT DECLARATION#page1.tif source=ASSIGNMENT\_DECLARATION#page2.tif source=ASSIGNMENT\_DECLARATION#page3.tif source=ASSIGNMENT\_DECLARATION#page4.tif source=ASSIGNMENT\_DECLARATION#page5.tif source=ASSIGNMENT\_DECLARATION#page6.tif source=ASSIGNMENT DECLARATION#page7.tif source=ASSIGNMENT\_DECLARATION#page8.tif source=ASSIGNMENT\_DECLARATION#page9.tif source=ASSIGNMENT\_DECLARATION#page10.tif source=ASSIGNMENT DECLARATION#page11.tif source=ASSIGNMENT DECLARATION#page12.tif source=ASSIGNMENT\_DECLARATION#page13.tif source=ASSIGNMENT DECLARATION#page14.tif source=ASSIGNMENT DECLARATION#page15.tif source=ASSIGNMENT DECLARATION#page16.tif source=ASSIGNMENT\_DECLARATION#page17.tif

U.S. Patent Appln. No. <u>15/472,628</u> Attorney Docket No. <u>101058.000577</u>

Filing Date March 29, 2017 Client Docket No. PM14638-US

PARTIES TO THE ASSIGNMENT

Assignor(s):

**Cyrus Hall** 225 Bush Street

San Francisco, CA 94014

**Daniel Lin**225 Bush Street
San Francisco, CA 94014

Maciej Laszcz 225 Bush Street San Francisco, CA 94014

**Luke Curley** 225 Bush Street San Francisco, CA 94014

Matthew Louis Szatmary 225 Bush Street San Francisco, CA 94014

**Abhinav Kapoor** 225 Bush Street San Francisco, CA 94014

**Daniel Arthur McClain** 225 Bush Street San Francisco, CA 94014

Assignee:
Twitch Interactive, Inc.
225 Bush Street
San Francisco, CA 94014

<u>AGREEMENT</u>

WHEREAS, ASSIGNOR(S) (listed above) are inventor(s) of an invention entitled

Diana Lu

225 Bush Street

San Francisco, CA 94014

Scott Wang 225 Bush Street

San Francisco, CA 94014

**Spencer Nelson** 225 Bush Street

San Francisco, CA 94014

Phillip Conover 225 Bush Street

San Francisco, CA 94014

**Scott Rabin** 225 Bush Street

San Francisco, CA 94014

Jorge Arturo Villatoro 225 Bush Street

San Francisco, CA 94014

U.S. Patent Appln. No. 15/472,628

Attorney Docket No. 101058.000577

Filing Date March 29, 2017

Client Docket No. PM14638-US

Title of Invention: LATENCY REDUCTION FOR STREAMING CONTENT REPLACEMENT

Inventors: Cyrus Hall; Daniel Lin; Maciej Laszcz; Luke Curley; Matthew Louis Szatmary; Abhinav Kapoor; Daniel Arthur McClain; Diana Lu; Scott Wang; Spencer Nelson; Phillip Conover; Scott

Rabin; Jorge Arturo Villatoro

"LATENCY REDUCTION FOR STREAMING CONTENT REPLACEMENT" (Invention) for which a non-

provisional application for United States Letters Patent (Application):

was filed on March 29, 2017 and accorded U.S. Application No. 15/472,628; or

will be filed concurrently with the submission of this executed PATENT ASSIGNMENT

for recordation.

ASSIGNOR(S) hereby authorizes and requests ASSIGNEE'S legal representatives, of Baker & Hostetler, LLP, associated with Customer No. 136593, to insert in the header above and here in parentheses (U.S. Patent Application No. 15/472,628, filed March 29, 2017) this application's U.S. application number and filing date, when known.

WHEREAS, ASSIGNEE, a corporation of the State of Nevada, is desirous of acquiring the entire right, title and interest in and to the Invention and in and to any letters patent that may be granted therefor in the United States and in any and all foreign countries.

NOW, THEREFORE, in exchange for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR(S) hereby sell, assign and transfer unto ASSIGNEE its successors and assigns, the entire right, title and interest in and to said Invention and any improvements thereto, said Application and any and all letters patent which may be granted for said Invention in the United States of America and its territorial possessions and in any and all foreign countries, and in any and all provisional, divisions, reissues, re-examinations and continuations thereof, including the right to file foreign applications directly in the name of ASSIGNEE and to claim priority rights deriving from said Application to which said foreign

Page 2 of 17

U.S. Patent Appln. No. 15/472,628

Attorney Docket No. 101058.000577

Filing Date March 29, 2017

Client Docket No. PM14638-US

Title of Invention: LATENCY REDUCTION FOR STREAMING CONTENT REPLACEMENT

Inventors: Cyrus Hall; Daniel Lin; Maciej Laszcz; Luke Curley; Matthew Louis Szatmary; Abhinav Kapoor; Daniel Arthur McClain; Diana Lu; Scott Wang; Spencer Nelson; Phillip Conover; Scott

Rabin; Jorge Arturo Villatoro

applications are entitled by virtue of international convention, treaty or otherwise, said

Invention, Application and all letters patent on said Invention to be held and enjoyed by

ASSIGNEE and its successors and assigns for their use and benefit and of their successors and

assigns as fully and entirely as the same would have been held and enjoyed by ASSIGNOR(S) had

this assignment, transfer and sale not been made. ASSIGNOR(S) hereby authorize and request

the Commissioner of Patents and Trademarks, as well as all other applicable patent offices

throughout the world, to issue all letters patent on said Invention to ASSIGNEE. ASSIGNOR(S)

agree to execute all instruments and documents required for the making and prosecution of

applications for United States and foreign letters patent on said Invention, for litigation

regarding said letters patent, or for the purpose of protecting title to said Invention or letters

patent therefor.

AND ASSIGNOR(S) DOES HEREBY sell, assign, transfer, and convey to ASSIGNEE, its

successors, legal representatives, and assigns all claims for damages and all remedies arising out

of any violation of the rights assigned hereby that may have accrued prior to the date of

assignment to ASSIGNEE, or may accrue hereafter, including, but not limited to, the right to sue

for, collect, and retain damages for past infringements of said letters patent before or after

issuance.

AND ASSIGNOR(S) DOES HEREBY covenant and agree that ASSIGNOR(S) will

communicate to ASSIGNEE, its successors, legal representatives and assigns, any facts known to

ASSIGNOR respecting the Invention or said Application, and testify in any legal proceeding, assist

Page 3 of 17

U.S. Patent Appln. No. 15/472,628

Attorney Docket No. 101058.000577

Filing Date March 29, 2017

Client Docket No. PM14638-US

Title of Invention: LATENCY REDUCTION FOR STREAMING CONTENT REPLACEMENT

Inventors: Cyrus Hall; Daniel Lin; Maciej Laszcz; Luke Curley; Matthew Louis Szatmary; Abhinav Kapoor; Daniel Arthur McClain; Diana Lu; Scott Wang; Spencer Nelson; Phillip Conover; Scott

Rabin; Jorge Arturo Villatoro

in the preparation of any other patent property relating to the Application and the Invention or

any improvements made thereto, sign/execute all lawful papers, provide all requested

documents, execute and make all rightful oaths and/or declarations in connection with the

Application and the Invention including any improvements made thereto, any patent

applications filed therefrom, and any continuing application filed from any of the

aforementioned applications, and generally do everything possible to aid ASSIGNEE, its

successors, legal representatives and assigns, to obtain and enforce proper patent protection for

the Invention in all countries. These provisions are binding upon ASSIGNOR's heirs, legal

representatives, administrators, and assigns.

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U.S. Patent Appln. No. <u>15/472,628</u>	Attorney Docket No. <u>101058.000577</u>			
Filing Date March 29, 2017	Client Docket No. <u>PM14638-US</u>			
Title of Invention: LATENCY REDUCTION FOR STREAMING CONTENT REPLACEMENT				
Inventors: Cyrus Hall; Daniel Lin; Maciej Laszcz; Luk Kapoor; Daniel Arthur McClain; Diana Lu; Scott Wa Rabin; Jorge Arturo Villatoro				
<u>DECLARATION</u>				
As a below named inventor, I hereby declare that:				
This declaration is directed to:				
the attached application; or				
United States Patent Application numbe	r <u>15/472,628</u> filed on <u>March 29, 2017</u> ; or			
PCT International Application number	filed on			
The above-identified application was made or autho	orized to be made by me.			
I believe that I am the original inventor or an origina application.	Il joint inventor of a claimed Invention in the			
I have reviewed and understand the contents of the	above-identified application, and			
acknowledge the duty to disclose to the US Patent &	& Trademark Office all information known to			
me to be material to the patentability as defined in	37 CFR 1.56.			
I hereby acknowledge that any willful false statemer	·			
under 18 USC 1001 by fine or imprisonment of not r	nore than five (5) years, or both.			
Cyrus Hall				
April 3, 2017				
Date				

Page 5 of 17

U.S. Patent Appln. No. <u>15/472,628</u>	Attorney Docket No. <u>101058.000577</u>
Filing Date March 29, 2017	Client Docket No. PM14638-US
Title of Invention: LATENCY REDUCTION FOR ST	FREAMING CONTENT REPLACEMENT
	; Luke Curley; Matthew Louis Szatmary; Abhinav t Wang; Spencer Nelson; Phillip Conover; Scott
<u>DECLARATION</u>	
As a below named inventor, I hereby declare the	nat:
This declaration is directed to:	
the attached application; or	
☑ United States Patent Application nu	ımber <u>15/472,628 f</u> iled on <u>March 29, 2017</u> ; or
PCT International Application numb	per filed on
The above-identified application was made or a	authorized to be made by me.
I believe that I am the original inventor or an orapplication.	riginal joint inventor of a claimed Invention in the
I have reviewed and understand the contents of	of the above-identified application, and
acknowledge the duty to disclose to the US Pat	ent & Trademark Office all information known to
me to be material to the patentability as define	ed in 37 CFR 1.56.
I hereby acknowledge that any willful false stat under 18 USC 1001 by fine or imprisonment of	
DocuSigned by:  Namiel Lin/ 28C4432362264E8	
Daniel Lin	
April 5, 2017 ————————————————————————————————————	
Date	

Page 6 of 17

U.S. Patent Appln. No. 15/472,628 Attorney Docket No. 101058.000577 Filing Date March 29, 2017 Client Docket No. PM14638-US Title of Invention: LATENCY REDUCTION FOR STREAMING CONTENT REPLACEMENT Inventors: Cyrus Hall; Daniel Lin; Maciej Laszcz; Luke Curley; Matthew Louis Szatmary; Abhinav Kapoor; Daniel Arthur McClain; Diana Lu; Scott Wang; Spencer Nelson; Phillip Conover; Scott Rabin; Jorge Arturo Villatoro **DECLARATION** As a below named inventor, I hereby declare that: This declaration is directed to: the attached application; or United States Patent Application number <u>15/472,628</u> filed on <u>March 29, 2017</u>; or PCT International Application number filed on . The above-identified application was made or authorized to be made by me. I believe that I am the original inventor or an original joint inventor of a claimed Invention in the application. I have reviewed and understand the contents of the above-identified application, and acknowledge the duty to disclose to the US Patent & Trademark Office all information known to me to be material to the patentability as defined in 37 CFR 1.56. I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 USC 1001 by fine or imprisonment of not more than five (5) years, or both. DocuSigned by: Maciej Laszcz

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PATENT REEL: 042031 FRAME: 0332

April 3, 2017

U.S. Patent Appln. No. 15/472,628 Attorney Docket No. 101058.000577 Filing Date March 29, 2017 Client Docket No. PM14638-US Title of Invention: LATENCY REDUCTION FOR STREAMING CONTENT REPLACEMENT Inventors: Cyrus Hall; Daniel Lin; Maciej Laszcz; Luke Curley; Matthew Louis Szatmary; Abhinav Kapoor; Daniel Arthur McClain; Diana Lu; Scott Wang; Spencer Nelson; Phillip Conover; Scott Rabin; Jorge Arturo Villatoro **DECLARATION** As a below named inventor, I hereby declare that: This declaration is directed to: the attached application; or United States Patent Application number <u>15/472,628</u> filed on <u>March 29, 2017</u>; or PCT International Application number filed on . The above-identified application was made or authorized to be made by me. I believe that I am the original inventor or an original joint inventor of a claimed Invention in the application. I have reviewed and understand the contents of the above-identified application, and acknowledge the duty to disclose to the US Patent & Trademark Office all information known to me to be material to the patentability as defined in 37 CFR 1.56. I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 USC 1001 by fine or imprisonment of not more than five (5) years, or both. Luke Curley April 3, 2017

Page 8 of 17

PATENT REEL: 042031 FRAME: 0333

U.S. Patent Appln. No. 15/472,628 Attorney Docket No. 101058.000577 Filing Date March 29, 2017 Client Docket No. PM14638-US Title of Invention: LATENCY REDUCTION FOR STREAMING CONTENT REPLACEMENT Inventors: Cyrus Hall; Daniel Lin; Maciej Laszcz; Luke Curley; Matthew Louis Szatmary; Abhinav Kapoor; Daniel Arthur McClain; Diana Lu; Scott Wang; Spencer Nelson; Phillip Conover; Scott Rabin; Jorge Arturo Villatoro **DECLARATION** As a below named inventor, I hereby declare that: This declaration is directed to: the attached application; or United States Patent Application number <u>15/472,628</u> filed on <u>March 29, 2017</u>; or PCT International Application number filed on . The above-identified application was made or authorized to be made by me. I believe that I am the original inventor or an original joint inventor of a claimed Invention in the application. I have reviewed and understand the contents of the above-identified application, and acknowledge the duty to disclose to the US Patent & Trademark Office all information known to me to be material to the patentability as defined in 37 CFR 1.56. I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 USC 1001 by fine or imprisonment of not more than five (5) years, or both. DocuSigned by: Matthew Louis Scatmary/ Matthew Louis Szatmary April 3, 2017

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PATENT REEL: 042031 FRAME: 0334

U.S. Patent Appln. No. 15/472,628 Attorney Docket No. 101058.000577 Filing Date March 29, 2017 Client Docket No. PM14638-US Title of Invention: LATENCY REDUCTION FOR STREAMING CONTENT REPLACEMENT Inventors: Cyrus Hall; Daniel Lin; Maciej Laszcz; Luke Curley; Matthew Louis Szatmary; Abhinav Kapoor; Daniel Arthur McClain; Diana Lu; Scott Wang; Spencer Nelson; Phillip Conover; Scott Rabin; Jorge Arturo Villatoro **DECLARATION** As a below named inventor, I hereby declare that: This declaration is directed to: the attached application; or United States Patent Application number <u>15/472,628</u> filed on <u>March 29, 2017</u>; or PCT International Application number filed on . The above-identified application was made or authorized to be made by me. I believe that I am the original inventor or an original joint inventor of a claimed Invention in the application. I have reviewed and understand the contents of the above-identified application, and acknowledge the duty to disclose to the US Patent & Trademark Office all information known to me to be material to the patentability as defined in 37 CFR 1.56. I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 USC 1001 by fine or imprisonment of not more than five (5) years, or both. /abbieran trapoor/ Abhinav Kapoor April 6, 2017

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PATENT REEL: 042031 FRAME: 0335

U.S. Patent Appln. No. 15/472,628 Attorney Docket No. 101058.000577 Filing Date March 29, 2017 Client Docket No. PM14638-US Title of Invention: LATENCY REDUCTION FOR STREAMING CONTENT REPLACEMENT Inventors: Cyrus Hall; Daniel Lin; Maciej Laszcz; Luke Curley; Matthew Louis Szatmary; Abhinav Kapoor; Daniel Arthur McClain; Diana Lu; Scott Wang; Spencer Nelson; Phillip Conover; Scott Rabin; Jorge Arturo Villatoro **DECLARATION** As a below named inventor, I hereby declare that: This declaration is directed to: the attached application; or United States Patent Application number <u>15/472,628</u> filed on <u>March 29, 2017</u>; or PCT International Application number filed on . The above-identified application was made or authorized to be made by me. I believe that I am the original inventor or an original joint inventor of a claimed Invention in the application. I have reviewed and understand the contents of the above-identified application, and acknowledge the duty to disclose to the US Patent & Trademark Office all information known to me to be material to the patentability as defined in 37 CFR 1.56. I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 USC 1001 by fine or imprisonment of not more than five (5) years, or both. DocuSigned by: /Daviel Arthur McClain/ 50EA9371DD7549E

Date

Daniel Arthur McClain

April 3, 2017

U.S. Patent Appln. No. 15/472,628 Attorney Docket No. 101058.000577 Filing Date March 29, 2017 Client Docket No. PM14638-US Title of Invention: LATENCY REDUCTION FOR STREAMING CONTENT REPLACEMENT Inventors: Cyrus Hall; Daniel Lin; Maciej Laszcz; Luke Curley; Matthew Louis Szatmary; Abhinav Kapoor; Daniel Arthur McClain; Diana Lu; Scott Wang; Spencer Nelson; Phillip Conover; Scott Rabin; Jorge Arturo Villatoro **DECLARATION** As a below named inventor, I hereby declare that: This declaration is directed to: the attached application; or United States Patent Application number <u>15/472,628</u> filed on <u>March 29, 2017</u>; or PCT International Application number filed on . The above-identified application was made or authorized to be made by me. I believe that I am the original inventor or an original joint inventor of a claimed Invention in the application. I have reviewed and understand the contents of the above-identified application, and acknowledge the duty to disclose to the US Patent & Trademark Office all information known to me to be material to the patentability as defined in 37 CFR 1.56. I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 USC 1001 by fine or imprisonment of not more than five (5) years, or both. DocuSigned by: Miana lu/ Diana Lu April 3, 2017

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PATENT REEL: 042031 FRAME: 0337

U.S. Patent Appln. No. 15/472,628 Attorney Docket No. 101058.000577 Filing Date March 29, 2017 Client Docket No. PM14638-US Title of Invention: LATENCY REDUCTION FOR STREAMING CONTENT REPLACEMENT Inventors: Cyrus Hall; Daniel Lin; Maciej Laszcz; Luke Curley; Matthew Louis Szatmary; Abhinav Kapoor; Daniel Arthur McClain; Diana Lu; Scott Wang; Spencer Nelson; Phillip Conover; Scott Rabin; Jorge Arturo Villatoro **DECLARATION** As a below named inventor, I hereby declare that: This declaration is directed to: the attached application; or United States Patent Application number <u>15/472,628</u> filed on <u>March 29, 2017</u>; or PCT International Application number filed on . The above-identified application was made or authorized to be made by me. I believe that I am the original inventor or an original joint inventor of a claimed Invention in the application. I have reviewed and understand the contents of the above-identified application, and acknowledge the duty to disclose to the US Patent & Trademark Office all information known to me to be material to the patentability as defined in 37 CFR 1.56. I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 USC 1001 by fine or imprisonment of not more than five (5) years, or both. Scott Wang April 3, 2017

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PATENT REEL: 042031 FRAME: 0338

U.S. Patent Appln. No. <u>15/472,628</u>	Attorney Docket No. <u>101058.000577</u>
Filing Date March 29, 2017	Client Docket No. PM14638-US
Title of Invention: LATENCY REDUCTION FOR STREAMING	CONTENT REPLACEMENT
Inventors: Cyrus Hall; Daniel Lin; Maciej Laszcz; Luke Curl Kapoor; Daniel Arthur McClain; Diana Lu; Scott Wang; Sp Rabin; Jorge Arturo Villatoro	
DECLARATION	
As a below named inventor, I hereby declare that:	
This declaration is directed to:	
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United States Patent Application number <u>15/472,628</u>	filed on <u>March 29, 2017</u> ; or
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DocuSigned by:	
/Spencer Nelson/	
Spencer Nelson	
April 4, 2017	

Page 14 of 17

PATENT REEL: 042031 FRAME: 0339

U.S. Patent Appln. No. 15/472,628 Attorney Docket No. 101058.000577 Filing Date March 29, 2017 Client Docket No. PM14638-US Title of Invention: LATENCY REDUCTION FOR STREAMING CONTENT REPLACEMENT Inventors: Cyrus Hall; Daniel Lin; Maciej Laszcz; Luke Curley; Matthew Louis Szatmary; Abhinav Kapoor; Daniel Arthur McClain; Diana Lu; Scott Wang; Spencer Nelson; Phillip Conover; Scott Rabin; Jorge Arturo Villatoro **DECLARATION** As a below named inventor, I hereby declare that: This declaration is directed to: the attached application; or United States Patent Application number <u>15/472,628</u> filed on <u>March 29, 2017</u>; or PCT International Application number filed on . The above-identified application was made or authorized to be made by me. I believe that I am the original inventor or an original joint inventor of a claimed Invention in the application. I have reviewed and understand the contents of the above-identified application, and acknowledge the duty to disclose to the US Patent & Trademark Office all information known to me to be material to the patentability as defined in 37 CFR 1.56. I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 USC 1001 by fine or imprisonment of not more than five (5) years, or both. Phillip Conover April 3, 2017

Page 15 of 17

PATENT REEL: 042031 FRAME: 0340

U.S. Patent Appln. No. 15/472,628 Attorney Docket No. 101058.000577 Filing Date March 29, 2017 Client Docket No. PM14638-US Title of Invention: LATENCY REDUCTION FOR STREAMING CONTENT REPLACEMENT Inventors: Cyrus Hall; Daniel Lin; Maciej Laszcz; Luke Curley; Matthew Louis Szatmary; Abhinav Kapoor; Daniel Arthur McClain; Diana Lu; Scott Wang; Spencer Nelson; Phillip Conover; Scott Rabin; Jorge Arturo Villatoro **DECLARATION** As a below named inventor, I hereby declare that: This declaration is directed to: the attached application; or United States Patent Application number <u>15/472,628</u> filed on <u>March 29, 2017</u>; or PCT International Application number filed on . The above-identified application was made or authorized to be made by me. I believe that I am the original inventor or an original joint inventor of a claimed Invention in the application. I have reviewed and understand the contents of the above-identified application, and acknowledge the duty to disclose to the US Patent & Trademark Office all information known to me to be material to the patentability as defined in 37 CFR 1.56. I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 USC 1001 by fine or imprisonment of not more than five (5) years, or both. DocuSigned by: Scott Rabin April 6, 2017

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PATENT REEL: 042031 FRAME: 0341

U.S. Patent Appln. No. 15/472,628 Attorney Docket No. 101058.000577 Filing Date March 29, 2017 Client Docket No. PM14638-US Title of Invention: LATENCY REDUCTION FOR STREAMING CONTENT REPLACEMENT Inventors: Cyrus Hall; Daniel Lin; Maciej Laszcz; Luke Curley; Matthew Louis Szatmary; Abhinav Kapoor; Daniel Arthur McClain; Diana Lu; Scott Wang; Spencer Nelson; Phillip Conover; Scott Rabin; Jorge Arturo Villatoro **DECLARATION** As a below named inventor, I hereby declare that: This declaration is directed to: the attached application; or United States Patent Application number <u>15/472,628</u> filed on <u>March 29, 2017</u>; or PCT International Application number filed on . The above-identified application was made or authorized to be made by me. I believe that I am the original inventor or an original joint inventor of a claimed Invention in the application. I have reviewed and understand the contents of the above-identified application, and acknowledge the duty to disclose to the US Patent & Trademark Office all information known to me to be material to the patentability as defined in 37 CFR 1.56. I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 USC 1001 by fine or imprisonment of not more than five (5) years, or both. /Jorge Arturo Villatoro/ Jorge Arturo Villatoro April 17, 2017

Date

Page 17 of 17

PATENT REEL: 042031 FRAME: 0342

RECORDED: 04/17/2017