

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT8042259

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT
NATURE OF CONVEYANCE:	Corrective Assignment to correct the ASSIGNEE NAME previously recorded on Reel 058348 Frame 0659. Assignor(s) hereby confirms the ASSIGNMENT.
CONVEYING PARTY DATA	
Name	Execution Date
MADHU PENUGONDA	03/03/2016
LAWRENCE TANG	03/02/2016
RECEIVING PARTY DATA	
Name:	COMBINED CONDITIONAL ACCESS DEVELOPMENT AND SUPPORT, LLC
Street Address:	1701 JFK BOULEVARD
City:	PHILADELPHIA
State/Country:	PENNSYLVANIA
Postal Code:	19103
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	17387628
CORRESPONDENCE DATA	
Fax Number:	
<i>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.</i>	
Email:	dbelson@bannerwitcoff.com, bwptopat@bannerwitcoff.com
Correspondent Name:	BANNER WITCOFF
Address Line 1:	1100 13TH ST NW
Address Line 2:	#1200
Address Line 4:	WASHINGTON, D.C. 20005
ATTORNEY DOCKET NUMBER:	007412.05456
NAME OF SUBMITTER:	JIHAN JOO
SIGNATURE:	/Jihan Joo/
DATE SIGNED:	07/06/2023
Total Attachments: 7	
source=Cover Sheet and Assignment#page1.tif	
source=Cover Sheet and Assignment#page2.tif	
source=Cover Sheet and Assignment#page3.tif	

source=Cover Sheet and Assignment#page4.tif

source=Cover Sheet and Assignment#page5.tif

source=Cover Sheet and Assignment#page6.tif

source=Cover Sheet and Assignment#page7.tif

ASSIGNMENT

Attorney Docket No.: **007412.03069**
Serial Number: 15/192,097
Filing Date: June 24, 2016
Inventors: Madhu Penugonda and Lawrence Tang

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the undersigned hereby assign to:

COMBINED CONDITIONAL ACCESS DEVELOPMENT AND SUPPORT, LLC

having a place of business at 1701 JFK Boulevard, Philadelphia, PA 19103, its successors and assigns, the entire right, title and interest in the invention or improvements of the undersigned disclosed in an application for Letters Patent of the United States, entitled:

Zero-Delay Initialization Encryption for Streaming Content

and identified as Attorney Docket No. 007412.03069 in the offices of Banner & Witcoff, Ltd. and in said application and any and all other applications, both United States and foreign, which the undersigned may file, either solely or jointly with others, on said invention or improvements, and in any and all Letters Patent of the United States and foreign countries, which may be obtained on any of said applications, and in any reissue or extension of such patents, and further assigns to said assignee the priority right provided by the International Convention.

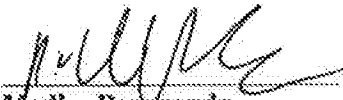
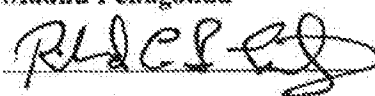

The undersigned hereby authorize and request the Commissioner of Patents and Trademarks to issue said Letters Patent to said assignee.

The undersigned hereby authorize and request the attorneys of record in said application to insert in this assignment the filing date and serial number of said application when officially known.

The undersigned warrant themselves to be the owners of the entire right, title and interest in said invention or improvements and to have the right to make this assignment, and further warrant that there are no outstanding prior assignments, licenses, or other encumbrances on the interest herein assigned.

For said considerations and without additional charge the undersigned hereby agree, upon the request and at the expense of said assignee, its successors and assigns, to execute any and all divisional, continuation and substitute applications for said invention or improvements, and any necessary oath, affidavit or declaration relating thereto, and any application for the reissue or extension of any Letters Patent that may be granted upon said application and any and all applications and other documents for Letters Patent in foreign countries on said invention or improvements, that said assignee, its successors or assigns may deem necessary or expedient, and for the said considerations and without additional charge the undersigned authorize said assignee to apply for patents for said invention or improvements in its own name in such countries where such procedure is proper and further agree, upon the request of and without additional charge to said assignee, its successors and assigns, to cooperate to the best of the ability of the undersigned with said assignee, its successors and assigns, in any proceedings or transactions involving such applications or patents, including the preparation and execution of preliminary statements, giving and producing evidence, and performing any and all other acts necessary to obtain, maintain and enforce said Letters Patent, both United States and foreign, and vest all rights therein hereby conveyed in the assignee, its successors and assigns, whereby said Letters Patent will be held and enjoyed by the said assignee, its successors and assigns, to the full end of the term for which said Letters Patent will be

granted, as fully and entirely as the same would have been held and enjoyed by the undersigned if this assignment had not been made.

Date:	<u>3-3-2016</u>	 Madhu Pennagonda
Date:	<u>3-3-2016</u>	 Witness
Date:	<u>3/8/2016</u>	 Witness
Date:	_____	_____ Lawrence Tang
Date:	_____	_____ Witness
Date:	_____	_____ Witness

granted, as fully and entirely as the same would have been held and enjoyed by the undersigned if this assignment had not been made.

Date: _____

Madhu Penugonda

Date: _____

Witness

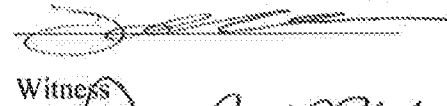
Date: _____

Witness

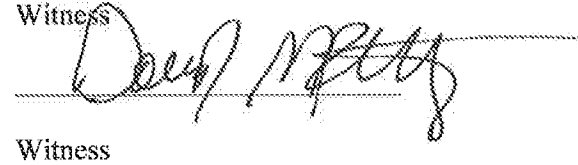
Date: 3-2-2016


Lawrence Tang

Date: 3-2-2016


Witness

Date: 3-2-2016


Witness

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT7065586

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
MADHU PENUGONDA	03/03/2016
LAWRENCE TANG	03/02/2016
RECEIVING PARTY DATA	
Name:	COMCAST CABLE COMMUNICATIONS, LLC
Street Address:	1701 JFK BOULEVARD
City:	PHILADELPHIA
State/Country:	PENNSYLVANIA
Postal Code:	19103
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	17387628
CORRESPONDENCE DATA	
Fax Number:	
<i>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.</i>	
Email:	dbelson@bannerwitcoff.com, bwptopat@bannerwitcoff.com
Correspondent Name:	BANNER WITCOFF
Address Line 1:	1100 13TH ST NW
Address Line 2:	#1200
Address Line 4:	WASHINGTON, D.C. 20005
ATTORNEY DOCKET NUMBER:	007412.05456
NAME OF SUBMITTER:	JIHAN JOO
SIGNATURE:	/Jihan Joo/
DATE SIGNED:	12/09/2021
Total Attachments: 3	
source=Assignment#page1.tif	
source=Assignment#page2.tif	
source=Assignment#page3.tif	

ASSIGNMENT

Attorney Docket No.: **007412.03069**
Serial Number: 15/192,097
Filing Date: June 24, 2016
Inventors: Madhu Penugonda and Lawrence Tang

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the undersigned hereby assign to:

COMBINED CONDITIONAL ACCESS DEVELOPMENT AND SUPPORT, LLC

having a place of business at 1701 JFK Boulevard, Philadelphia, PA 19103, its successors and assigns, the entire right, title and interest in the invention or improvements of the undersigned disclosed in an application for Letters Patent of the United States, entitled:

Zero-Delay Initialization Encryption for Streaming Content

and identified as Attorney Docket No. 007412.03069 in the offices of Banner & Witcoff, Ltd. and in said application and any and all other applications, both United States and foreign, which the undersigned may file, either solely or jointly with others, on said invention or improvements, and in any and all Letters Patent of the United States and foreign countries, which may be obtained on any of said applications, and in any reissue or extension of such patents, and further assigns to said assignee the priority right provided by the International Convention.

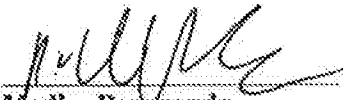
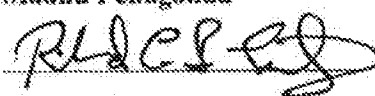

The undersigned hereby authorize and request the Commissioner of Patents and Trademarks to issue said Letters Patent to said assignee.

The undersigned hereby authorize and request the attorneys of record in said application to insert in this assignment the filing date and serial number of said application when officially known.

The undersigned warrant themselves to be the owners of the entire right, title and interest in said invention or improvements and to have the right to make this assignment, and further warrant that there are no outstanding prior assignments, licenses, or other encumbrances on the interest herein assigned.

For said considerations and without additional charge the undersigned hereby agree, upon the request and at the expense of said assignee, its successors and assigns, to execute any and all divisional, continuation and substitute applications for said invention or improvements, and any necessary oath, affidavit or declaration relating thereto, and any application for the reissue or extension of any Letters Patent that may be granted upon said application and any and all applications and other documents for Letters Patent in foreign countries on said invention or improvements, that said assignee, its successors or assigns may deem necessary or expedient, and for the said considerations and without additional charge the undersigned authorize said assignee to apply for patents for said invention or improvements in its own name in such countries where such procedure is proper and further agree, upon the request of and without additional charge to said assignee, its successors and assigns, to cooperate to the best of the ability of the undersigned with said assignee, its successors and assigns, in any proceedings or transactions involving such applications or patents, including the preparation and execution of preliminary statements, giving and producing evidence, and performing any and all other acts necessary to obtain, maintain and enforce said Letters Patent, both United States and foreign, and vest all rights therein hereby conveyed in the assignee, its successors and assigns, whereby said Letters Patent will be held and enjoyed by the said assignee, its successors and assigns, to the full end of the term for which said Letters Patent will be

granted, as fully and entirely as the same would have been held and enjoyed by the undersigned if this assignment had not been made.

Date:	<u>3-3-2016</u>	 Madhu Pennagonda
Date:	<u>3-3-2016</u>	 Witness
Date:	<u>3/8/2016</u>	 Witness
Date:	_____	_____ Lawrence Tang
Date:	_____	_____ Witness
Date:	_____	_____ Witness

granted, as fully and entirely as the same would have been held and enjoyed by the undersigned if this assignment had not been made.

Date: _____

Madhu Penugonda

Date: _____

Witness

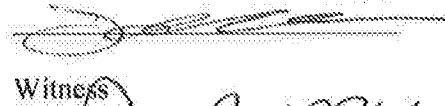
Date: _____

Witness

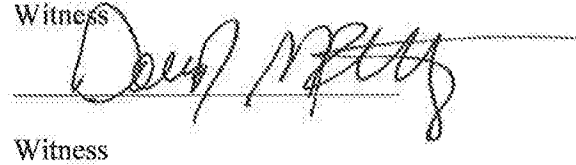
Date: 3-2-2016


Lawrence Tang

Date: 3-2-2016


Witness

Date: 3-2-2016


Witness