

PATENT ASSIGNMENT COVER SHEET

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 Stylesheet Version v1.2

EPAS ID: PAT2716305

| SUBMISSION TYPE: | NEW ASSIGNMENT | | | | | | | | | | | | | | |
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| NATURE OF CONVEYANCE: | ASSIGNMENT | | | | | | | | | | | | | | |
| CONVEYING PARTY DATA | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>WEIDONG MAO</td> <td>01/02/2014</td> </tr> <tr> <td>ELAD NAFSHI</td> <td>01/02/2014</td> </tr> <tr> <td>MARK A. VICKERS</td> <td>01/27/2014</td> </tr> <tr> <td>BRUCE BRADLEY</td> <td>12/20/2013</td> </tr> <tr> <td>GREGORY A. BROOME</td> <td>01/27/2014</td> </tr> <tr> <td>SREE KOTAY</td> <td>01/13/2014</td> </tr> </tbody> </table> | | Name | Execution Date | WEIDONG MAO | 01/02/2014 | ELAD NAFSHI | 01/02/2014 | MARK A. VICKERS | 01/27/2014 | BRUCE BRADLEY | 12/20/2013 | GREGORY A. BROOME | 01/27/2014 | SREE KOTAY | 01/13/2014 |
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| SREE KOTAY | 01/13/2014 | | | | | | | | | | | | | | |
| RECEIVING PARTY DATA | | | | | | | | | | | | | | | |
| <table border="1"> <tr> <td>Name:</td> <td>Comcast Cable Communications, LLC</td> </tr> <tr> <td>Street Address:</td> <td>1701 JFK Boulevard</td> </tr> <tr> <td>City:</td> <td>Philadelphia</td> </tr> <tr> <td>State/Country:</td> <td>PENNSYLVANIA</td> </tr> <tr> <td>Postal Code:</td> <td>19103</td> </tr> </table> | | Name: | Comcast Cable Communications, LLC | Street Address: | 1701 JFK Boulevard | City: | Philadelphia | State/Country: | PENNSYLVANIA | Postal Code: | 19103 | | | | |
| Name: | Comcast Cable Communications, LLC | | | | | | | | | | | | | | |
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| City: | Philadelphia | | | | | | | | | | | | | | |
| State/Country: | PENNSYLVANIA | | | | | | | | | | | | | | |
| Postal Code: | 19103 | | | | | | | | | | | | | | |
| PROPERTY NUMBERS Total: 1 | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>14173466</td> </tr> </tbody> </table> | | Property Type | Number | Application Number: | 14173466 | | | | | | | | | | |
| Property Type | Number | | | | | | | | | | | | | | |
| Application Number: | 14173466 | | | | | | | | | | | | | | |
| CORRESPONDENCE DATA | | | | | | | | | | | | | | | |
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| <i>Correspondence will be sent via US Mail when the email attempt is unsuccessful.</i> | | | | | | | | | | | | | | | |
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| ATTORNEY DOCKET NUMBER: | 26141.0089U2 | | | | | | | | | | | | | | |

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|--|----------------------------|
| NAME OF SUBMITTER: | CHARLEY F. BROWN |
| Signature: | /Charley F. Brown #52,658/ |
| Date: | 02/06/2014 |
| Total Attachments: 7 source=26141_0089U2_Executed Assignment#page1.tif source=26141_0089U2_Executed Assignment#page2.tif source=26141_0089U2_Executed Assignment#page3.tif source=26141_0089U2_Executed Assignment#page4.tif source=26141_0089U2_Executed Assignment#page5.tif source=26141_0089U2_Executed Assignment#page6.tif source=26141_0089U2_Executed Assignment#page7.tif | |

ASSIGNMENT

Attorney Docket No.: 26141.0089U2

Client Reference No.: 2013019967

Serial Number: 14/173,466

Filing Date: February 5, 2014

Inventor(s): Weidong Mao, Elad Nafshi, Mark A. Vickers, Bruce Bradley, Gregory A. Broome
And Sree Kotay

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

COMCAST CABLE COMMUNICATIONS, 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:

Management Of Content

and identified as Attorney Docket No. 26141.0089U2 in the offices of Ballard Spahr LLP 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

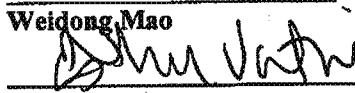
such applications or patents, including the preparation and execution of preliminary statements, giving and producing evidence, and performing any and all other acts necessary to obtain, maintain and enforce said Letters Patent; both United States and foreign, and vest all rights therein hereby conveyed 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: 1/2/2014



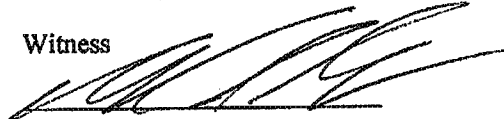
Weidong Mao

Date: 1/2/2014



Witness

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Witness

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Elad Nafshi

Date: _____

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Date: _____

Mark A. Vickers

Date: _____

Witness

Date: _____

Witness

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: _____

Weidong Mao

Date: _____

Witness

Date: _____

Witness

Date: 1/2/14

Elad Nafshi
Elad Nafshi

Date: 1/2/14

Yvette C. [Signature]
Witness

Date: 1/2/2014

Katherine L. [Signature]

Witness

Date: _____

Mark A. Vickers

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Date: 1/27/2014
Mark A. Vickers

Date: 1/27/2014
Heather Sokell

Witness

Date: 1/27/2014
Katherine L. Indaco

Witness

Date: 12/20/13 Bruce Bradley
Bruce Bradley

Date: 12/20/13 VINAYAN YERENKAR
Witness

Date: 12/20/13 Rina Hayashi
Witness

Date: _____
Gregory A. Broome

Date: _____
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Sree Kotay

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Date: 1-13-14
Witness
Maryanne C. Aguilino

Date: 1/13/14
Witness
Jovanine Bignoni