

## PATENT ASSIGNMENT COVER SHEET

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
RAGHURAM RANGANATHAN	12/08/2016
ANAND JAIN	12/08/2016
VENUGOPAL SRINIVASAN	12/08/2016
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<b>Postal Code:</b>	10004
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15374345
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<b>SIGNATURE:</b>	/Steven L. Webb/
<b>DATE SIGNED:</b>	02/20/2017
<b>Total Attachments: 5</b>	
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## ASSIGNMENT

Serial No:

Filed:

Title: SCALABLE ARCHITECTURES FOR REFERENCE SIGNATURE MATCHING  
AND UPDATING

For good and valuable consideration, the receipt and sufficiency whereof are hereby acknowledged, the undersigned Assignor(s) hereby assign to The Nielsen Company (US), LLC, a Delaware Limited Liability Company, 85 Broad Street, New York, New York 10004, United States of America, (hereinafter "Assignee"), its successors and assigns, the entire right, title and interest in the invention(s) and/or improvements of the undersigned disclosed in the application for Patent identified above, and in said application and any and all other applications, United States, international and/or foreign, which the undersigned Assignor(s) or the Assignee may file, either solely or jointly with others, on said invention(s) and/or improvements, and in any and all Patent(s), which may be obtained on any of said application(s) anywhere in the world, and in any reissue(s) or extension(s) thereof. This assignment includes all rights associated with said application(s) and the underlying inventions including, without limitation, all patent right(s) in any and all countries and all right(s) to claim priority to and/or from said application(s) in any and all countries. No rights whatsoever are reserved to the undersigned Assignor(s), but instead all rights are hereby transferred to the Assignee and the Assignee hereby accepts all such rights. This assignment is governed by the Law of the State of Illinois, United States of America without regard to its choice of law provisions.

The undersigned Assignor(s) hereby authorize and request the Commissioner of Patents and Trademarks of the United States Patent and Trademark Office to issue any said Letters Patent(s) of the United States to said Assignee.

The undersigned Assignor(s) hereby authorize and request the appropriate governmental official(s) of the appropriate foreign patent Office(s) to issue any said foreign Patent(s) to said Assignee.

The undersigned Assignor(s) hereby authorize and request the attorneys of record in said application(s) to insert in this assignment the execution date and/or filing date and serial number of any such application(s) when officially known.

The undersigned Assignor(s) warrant themselves to be the owner of the interest(s) herein assigned and to have the right to make this assignment and further warrant that there are no outstanding prior assignments, licenses, or other rights in the interest(s) herein assigned.

For said consideration the undersigned Assignor(s) hereby agree, upon the request and at the expense of said Assignee, its successors and assigns, to execute any and all

international, divisional, continuation, continuation-in-part and substitute applications for said invention(s) or improvements, and any necessary oath or affidavit relating thereto, and any application(s) for the reissue or extension of any Letters Patent that may be granted upon said application(s), and any and all application(s) and other documents for Patent in foreign countries on said invention(s) or improvements, that said Assignee, its successors or assigns, may deem necessary or expedient, and for said consideration the undersigned Assignor(s) further agree upon the request of said Assignee, its successors or assigns, in the event of any application(s) or Patent(s) assigned herein become involved in Interference, to cooperate to the best of the ability of the undersigned Assignor(s) with said Assignee, its successors or assigns, in the matters of preparing and executing the preliminary statement and giving and producing evidence in support thereof, the undersigned Assignor(s) hereby agree to perform, upon request, any and all affirmative acts to obtain said Patent(s), both United States and foreign, and vest all rights therein hereby conveyed in said Assignee, its successors and assigns, whereby said Patent(s) will be held and enjoyed by said Assignee, its successors and assigns, to the full end of the term for which said Patent(s) may be granted as fully and entirely as the same would have been held and enjoyed by the undersigned if this assignment and sale had not been made.

Assignor(s)

WITNESS my hand this 8<sup>th</sup> day of DECEMBER, 2016

  
Raghuram Ranganathan

Attorney Docket No. 20004/81141600US01

Assignor(s)

WITNESS my hand this 8 day of Dec, 16.

Anand Jain  
Anand Jain

Assignor(s)

WITNESS my hand this 8 day of DECEMBER, 2016

Venugopal Srinivasan  
Venugopal Srinivasan

\* \* \* \* \*

Assignee:

WITNESS my hand this 16 day of February, 2017

Thomas Strouse  
Thomas Strouse  
Vice President and Intellectual Property Counsel  
On behalf of The Nielsen Company (US), LLC

\* \* \* \* \*