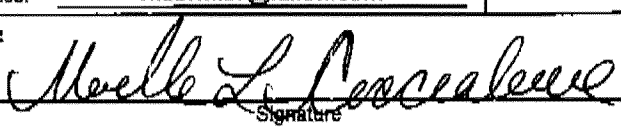


Form PTO-1595 (Rev. 03-11)
OMB No. 0651-0027 (exp. 03/31/2015)

U.S. DEPARTMENT OF COMMERCE
United States Patent and Trademark Office

RECORDATION FORM COVER SHEET PATENTS ONLY

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

<p>1. Name of conveying party(ies): Tianhao Qiu (04/18/2013), Manpreet Singh (04/18/2013), Halfeng Jiang (05/02/2013), Ashish Gupta (04/18/2013), Additional name(s) of conveying party(ies) attached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>3. Nature of conveyance/Execution Date(s): Execution Date(s): <u>in parentheses after inventor name</u> <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Change of Name <input type="checkbox"/> Security Agreement <input type="checkbox"/> Joint Research Agreement <input type="checkbox"/> Government Interest Assignment <input type="checkbox"/> Executive Order 9424, Confirmatory License <input type="checkbox"/> Other _____</p>	<p>2. Name and address of receiving party(ies) Name: <u>Google Inc.</u> Internal Address: _____ Street Address: _____ 1600 Amphitheatre Parkway City: <u>Mountain View</u> State: <u>California</u> Country: <u>United States of America</u> Zip: <u>94043</u> Additional name(s) & address(es) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
<p>4. Application or patent number(s): <input type="checkbox"/> This document is being filed together with a new application. A. Patent Application No.(s) <u>14/038,110</u> B. Patent No.(s) Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>6. Total number of applications and patents involved: 1</p> <p>7. Total fee (37 CFR 1.21(h) & 3.41) \$ <u>40.00</u> <input checked="" type="checkbox"/> Authorized to be charged to deposit account <input type="checkbox"/> Enclosed <input type="checkbox"/> None required (government interest not affecting title)</p>
<p>5. Name and address to whom correspondence concerning document should be mailed: Name: <u>Noelle L. Cacciabeve</u> <u>LERNER, DAVID, LITTENBERG,</u> <u>KRUMHOLZ & MENTLIK, LLP</u> Internal Address: <u>Atty. Dkt.: GOOGLE 3.0F-1123</u> Street Address: <u>600 South Avenue West</u> City: <u>Westfield</u> State: <u>NJ</u> Zip: <u>07090</u> Phone Number: <u>908-654-5000</u> Fax Number: <u>908-654-7866</u> Email Address: <u>mcormier@ldlkm.com</u></p>	<p>8. Payment Information Deposit Account Number <u>12-1095</u> Authorized User Name <u>Noelle L. Cacciabeve</u></p>
<p>9. Signature: <u></u> <u>October 14, 2013</u> _____ Signature Date <u>Noelle L. Cacciabeve - 63,075</u> Total number of pages including cover sheet, attachments, and documents: 9 Name of Person Signing</p>	

CH \$40.00 121095 14038110

**RECORDATION FORM COVER SHEET (PTO-1595)
(supplemental sheet)**

Additional Conveying Party(ies)/Execution Date(s) (1. Continued):

Sumit Das (04/19/2013), Venkatesh Basker (04/18/2013), and Rajagopal Ananthanarayanan (04/21/2013)

Additional Assignees (2. Continued):

Assignee Name: _____

Internal Address:

Street Address:

City: _____ State: _____ Country: _____ Zip: _____

Assignee Name: _____

Internal Address:

Street Address:

City: _____ State: _____ Country: _____ Zip: _____

Assignee Name: _____

Internal Address:

Street Address:

City: _____ State: _____ Country: _____ Zip: _____


Additional Applications and/or Patents (4. Continued):

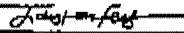
Additional Patent Application Numbers
4A. Continued:

Additional Patent Numbers
4B. Continued:


Additional numbers attached?

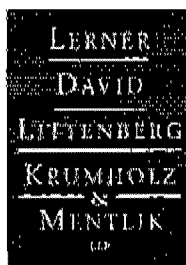
Yes No

ASSIGNMENT OF PATENT APPLICATION	Docket Number (Optional) GOOGLE 3,8-1123
<p>WHEREAS, I, <u>Manpreet Singh of c/o Google Inc., 1600 Amphitheatre Parkway, Mountain View, California 94043</u>, have invented or discovered inventions or discoveries, the subject matter of which is described in the patent application entitled "MULTI-LEVEL CACHING EVENT LOOKUP" (hereafter "Patent Application"),</p>	
<p><input checked="" type="checkbox"/> WHEREAS (if the left box is checked), the Patent Application was filed with the U.S. Patent and Trademark Office on <u>March 20, 2013</u>, Application Number <u>61/803,632</u>, and</p>	
<p><input type="checkbox"/> WHEREAS (if the left box is checked), the Patent Application names the following inventors: (and whereas I hereby authorize Lerner, David, Litzenberg, Krumholz & Mentlik, LLP, to insert in here in brackets [Application No. _____, filed on _____] the application number and filing date of the application when known), and</p>	
<p>WHEREAS, <u>Google Inc.</u>, incorporated or otherwise formed in <u>Delaware</u> and having a place of business at <u>1600 Amphitheatre Parkway, Mountain View, California 94043</u> (hereafter, the "assignee") is desirous of acquiring, or has acquired and is desirous of memorializing its acquisition further herein, the entire right, title and interest in same;</p>	
<p>NOW, THEREFORE, for good and valuable consideration the receipt of which is hereby acknowledged, I agree as follows. I agree to assign, and hereby do assign, to the assignee my entire right, title and interest in and to the Assigned Applications in the United States of America and all other countries, where "Assigned Applications" means the Patent Application, including any and all inventions, discoveries and other subject matter described therein, any divisional, continuation, continuation-in-part, substitute, reissue, re-examination or other application claiming priority or benefit to the Patent Application pursuant to any law or treaty, and any patent issuing from the foregoing. I agree to assign, and hereby do assign, to assignee the right to claim such priority or benefit. I have not previously conveyed, nor am I aware of an obligation to convey, my rights in the Assigned Applications to a third party. I hereby authorize the U.S. Patent and Trademark Office, and any other governmental agency in the world, to issue to assignee all patents resulting from the Assigned Applications and to record assignee's ownership thereof. At assignee's reasonable request I agree, without further remuneration, to execute and deliver documents prepared at assignee's expense and to provide other cooperation, such as testimony, as may be reasonably required to evidence or protect assignee's rights in the Assigned Applications. Assignee may assign or transfer all or part of its rights set forth herein in its sole discretion. I agree that the assignee may affix its signature to this document as well as any other indicia of its acceptance of the provisions hereof. If any provision herein is unenforceable, the requirements of the provision shall remain to the full extent permissible by law and the offending portions thereof shall be deemed replaced, to the extent possible, with a provision most closely reflecting the purpose of the offending provision.</p>	
<p><u>Apr 18, 2013</u> (Date)</p>	<p> <u>Manpreet Singh (Apr 18, 2013)</u> (Signature)</p>

ASSIGNMENT OF PATENT APPLICATION	Docket Number (Optional) GOOGLE 3.8-1123
<p>WHEREAS, I, <u>Haifeng Jiang</u> of, <u>c/o Google Inc., 1600 Amphitheatre Parkway, Mountain View, California 94043</u>, have invented or discovered inventions or discoveries, the subject matter of which is described in the patent application entitled "MULTI-LEVEL CACHING EVENT LOOKUP" (hereafter "Patent Application"),</p> <p><input checked="" type="checkbox"/> WHEREAS (if the left box is checked), the Patent Application was filed with the U.S. Patent and Trademark Office on <u>March 20, 2013</u>, Application Number <u>61/603,632</u>, and</p> <p><input type="checkbox"/> WHEREAS (if the left box is checked), the Patent Application names the following inventors: (and whereas I hereby authorize Lerner, David, Littenberg, Krumholz & Mentlik, LLP, to insert in here in brackets [Application No. _____, filed on _____] the application number and filing date of the application when known), and</p> <p>WHEREAS, <u>Google Inc.</u>, incorporated or otherwise formed in <u>Delaware</u> and having a place of business at <u>1600 Amphitheatre Parkway, Mountain View, California 94043</u> (hereafter, the "assignee") is desirous of acquiring, or has acquired and is desirous of memorializing its acquisition further herein, the entire right, title and interest in same;</p> <p>NOW, THEREFORE, for good and valuable consideration the receipt of which is hereby acknowledged, I agree as follows. I agree to assign, and hereby do assign, to the assignee my entire right, title and interest in and to the Assigned Applications in the United States of America and all other countries, where "Assigned Applications" means the Patent Application, including any and all inventions, discoveries and other subject matter described therein, any divisional, continuation, continuation-in-part, substitute, reissue, re-examination or other application claiming priority or benefit to the Patent Application pursuant to any law or treaty, and any patent issuing from the foregoing. I agree to assign, and hereby do assign, to assignee the right to claim such priority or benefit. I have not previously conveyed, nor am I aware of an obligation to convey, my rights in the Assigned Applications to a third party. I hereby authorize the U.S. Patent and Trademark Office, and any other governmental agency in the world, to issue to assignee all patents resulting from the Assigned Applications and to record assignee's ownership thereof. At assignee's reasonable request I agree, without further remuneration, to execute and deliver documents prepared at assignee's expense and to provide other cooperation, such as testimony, as may be reasonably required to evidence or protect assignee's rights in the Assigned Applications. Assignee may assign or transfer all or part of its rights set forth herein in its sole discretion. I agree that the assignee may affix its signature to this document as well as any other indicia of its acceptance of the provisions hereof. If any provision herein is unenforceable, the requirements of the provision shall remain to the full extent permissible by law and the offending portions thereof shall be deemed replaced, to the extent possible, with a provision most closely reflecting the purpose of the offending provision.</p> <p style="text-align: center;"> <u>May 2, 2013</u> _____ (Date) </p> <p style="text-align: center;">  _____ Haifeng Jiang (May 2, 2013) (Signature) </p>	

ASSIGNMENT OF PATENT APPLICATION	Docket Number (Optional) GOOGLE 3.8-1123
<p>WHEREAS, I, <u>Sumit Das of c/o Google Inc., 1600 Amphitheatre Parkway, Mountain View, California 94043</u>, have invented or discovered inventions or discoveries, the subject matter of which is described in the patent application entitled "MULTI-LEVEL CACHING EVENT LOOKUP" (hereafter "Patent Application"),</p>	
<p><input checked="" type="checkbox"/> WHEREAS (if the left box is checked), the Patent Application was filed with the U.S. Patent and Trademark Office on <u>March 20, 2013</u>, Application Number <u>61/603,632</u>, and</p>	
<p><input type="checkbox"/> WHEREAS (if the left box is checked), the Patent Application names the following inventors: (and whereas I hereby authorize Lerner, David, Litzenberg, Krumholz & Mentlik, LLP, to insert in here in brackets [Application No. _____, filed on _____] the application number and filing date of the application when known), and</p>	
<p>WHEREAS, <u>Google Inc.</u>, incorporated or otherwise formed in <u>Delaware</u> and having a place of business at <u>1600 Amphitheatre Parkway, Mountain View, California 94043</u> (hereafter, the "assignee") is desirous of acquiring, or has acquired and is desirous of memorializing its acquisition further herein, the entire right, title and interest in same:</p>	
<p>NOW, THEREFORE, for good and valuable consideration the receipt of which is hereby acknowledged, I agree as follows. I agree to assign, and hereby do assign, to the assignee my entire right, title and interest in and to the Assigned Applications in the United States of America and all other countries, where "Assigned Applications" means the Patent Application, including any and all inventions, discoveries and other subject matter described therein, any divisional, continuation, continuation-in-part, substitute, reissue, re-examination or other application claiming priority or benefit to the Patent Application pursuant to any law or treaty, and any patent issuing from the foregoing. I agree to assign, and hereby do assign, to assignee the right to claim such priority or benefit. I have not previously conveyed, nor am I aware of an obligation to convey, my rights in the Assigned Applications to a third party. I hereby authorize the U.S. Patent and Trademark Office, and any other governmental agency in the world, to issue to assignee all patents resulting from the Assigned Applications and to record assignee's ownership thereof. At assignee's reasonable request I agree, without further remuneration, to execute and deliver documents prepared at assignee's expense and to provide other cooperation, such as testimony, as may be reasonably required to evidence or protect assignee's rights in the Assigned Applications. Assignee may assign or transfer all or part of its rights set forth herein in its sole discretion. I agree that the assignee may affix its signature to this document as well as any other indicia of its acceptance of the provisions hereof. If any provision herein is unenforceable, the requirements of the provision shall remain to the full extent permissible by law and the offending portions thereof shall be deemed replaced, to the extent possible, with a provision most closely reflecting the purpose of the offending provision.</p>	
<p><u>Apr 19, 2013</u> (Date)</p>	<p><u>Sumit Das</u> Sumit Das (Apr. 19, 2013) (Signature)</p>

ASSIGNMENT OF PATENT APPLICATION	Docket Number (Optional) GOOGLE 3.8-1123
<p>WHEREAS, I, <u>Rajagopal Ananthanarayanan of c/o Google Inc., 1600 Amphitheatre Parkway, Mountain View, California, 94043</u>, have invented or discovered inventions or discoveries, the subject matter of which is described in the patent application entitled "MULTI-LEVEL CACHING EVENT LOOKUP" (hereafter "Patent Application"),</p>	
<p><input checked="" type="checkbox"/> WHEREAS (if the left box is checked), the Patent Application was filed with the U.S. Patent and Trademark Office on <u>March 20, 2013</u>, Application Number <u>61/603,632</u>, and</p>	
<p><input type="checkbox"/> WHEREAS (if the left box is checked), the Patent Application names the following inventors: (and whereas I hereby authorize Lerner, David, Litenberg, Krumholz & Mentlik, LLP, to insert in here in brackets [Application No. _____, filed on _____] the application number and filing date of the application when known), and</p>	
<p>WHEREAS, <u>Google Inc.</u>, incorporated or otherwise formed in <u>Delaware</u> and having a place of business at <u>1600 Amphitheatre Parkway, Mountain View, California 94043</u> (hereafter, the "assignee") is desirous of acquiring, or has acquired and is desirous of memorializing its acquisition further herein, the entire right, title and interest in same;</p>	
<p>NOW, THEREFORE, for good and valuable consideration the receipt of which is hereby acknowledged, I agree as follows. I agree to assign, and hereby do assign, to the assignee my entire right, title and interest in and to the Assigned Applications in the United States of America and all other countries, where "Assigned Applications" means the Patent Application, including any and all inventions, discoveries and other subject matter described therein, any divisional, continuation, continuation-in-part, substitute, reissue, re-examination or other application claiming priority or benefit to the Patent Application pursuant to any law or treaty, and any patent issuing from the foregoing. I agree to assign, and hereby do assign, to assignee the right to claim such priority or benefit. I have not previously conveyed, nor am I aware of an obligation to convey, my rights in the Assigned Applications to a third party. I hereby authorize the U.S. Patent and Trademark Office, and any other governmental agency in the world, to issue to assignee all patents resulting from the Assigned Applications and to record assignee's ownership thereof. At assignee's reasonable request I agree, without further remuneration, to execute and deliver documents prepared at assignee's expense and to provide other cooperation, such as testimony, as may be reasonably required to evidence or protect assignee's rights in the Assigned Applications. Assignee may assign or transfer all or part of its rights set forth herein in its sole discretion. I agree that the assignee may affix its signature to this document as well as any other indicia of its acceptance of the provisions hereof. If any provision herein is unenforceable, the requirements of the provision shall remain to the full extent permissible by law and the offending portions thereof shall be deemed replaced, to the extent possible, with a provision most closely reflecting the purpose of the offending provision.</p>	
<p><u>Apr 21, 2013</u> (Date)</p>	<p> Rajagopal Ananthanarayanan (Apr 21, 2013) (Signature)</p>



600 SOUTH AVENUE WEST • WESTFIELD, NEW JERSEY 07090
 908.654.5000 • FAX 908.654.7866 • WWW.LDLKM.COM

PATENTS, TRADEMARKS, COPYRIGHTS & UNFAIR COMPETITION

Facsimile Transmittal

To:	Fax Number	From
USPTO Assignment Division	571-273-0140	Phyllis Kelly 908-518-6456

Date: October 14, 2013
 No. Pages: 10
 File Name.: GOOGLE 3.0F-1123
 Client/Matter No: GOOGLE/2321
 Attorney/Secretary: NLC/sw

MESSAGE:

Please record the attached assignment and fax the Notice of Recordation to Phyllis Kelly at 908-654-7866.

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