| Form PTO-1595 (Rev. 03-11)<br>OMB No. 0651-0027 (exp. 03/31/2012)   | U.\$ DEPARTMENT OF COMMERCE<br>United States Patent and Tradomark Office   |  |
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| 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.  |  |
| 1. Name of conveying party(les):  | 2. Name and address of receiving party(les)  |  |
| Junlan Zhou (01/26/2012), Amin Vahdat<br>(01/26/2012), and Arjun Singh (01/26/2012)                                   | Name: Google Inc.  |  |
|   | Internal Address:  |  |
| Additional name(a) of conveying party(les) attached?  | Street Address:  |  |
| 3. Nature of conveyance/Execution Date(s):  |  |  |
| Execution Date(s). in parentheses after inventor name   | 1600 Amphitheatre Parkway  |  |
| Assignment Merger Change of Name  |  |  |
| Security Agreement Joint Research Agreement   | City: Mountain View  |  |
| Government Interest Assignment  | State: California  |  |
| Executive Order 9424, Confirmatory License  | Country: United States of America Zip: 94043   |  |
| Other   | Additional name(s) & address(es) Yes X No  |  |
|   | attached?  |  |
| <ul> <li>A. Patent Application No.(s)</li> <li>13/359,698</li> <li>Additional numbers attached<sup>2</sup></li> </ul> | B. Patent No.(s)   |  |
| 5. Name and address to whom correspondence<br>concerning document should be mailed:                                   | 6. Total number of applications and 1  |  |
| Name: Cicero H. Brabham, Jr.<br>LERNER, DAVID, LITTENBERG,<br>KRUMHOLZ & MENTLIK, LLP                                 | 7. Total fee (37 CFR 1 21(h) & 3.41) \$ 40.00  |  |
| Internal Address: Atty. Dkt.: GOOGLE 3.0-492<br>Street Address: 600 South Avenue West                                 | X Authorized to be charged to deposit account     Enclosed     None required (government Interest not affecting title) |  |
| City: Westfield   | 8. Payment information   |  |
| State: NJ Zip: 07090  |  |  |
| Phone Number: 908-654-5000  |  |  |
| Fax Number: 908-654-7866  | Deposit Account Number 12-1095   |  |
| Email Address:ataylor@ldlkm.com   | Authorized User Name Cicero H. Brabham, Jr.  |  |
| 9. Signature:   | January 31, 2012<br>Date   |  |
| Cicero H. Brabham, Jr 66,809<br>Name of Person Signing  | Total number of pages including cover 4  |  |
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| Docket Number (Optional)   |  |  |
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| GOOGLE 3.0-492   |  |  |
| WHEREAS, I. <u>Junian Zhou</u> of <u>1035 Aster Avenue</u> , <u>#2190; Sunnyvale, California 94086</u> , have invented or<br>discovered inventions or discoveries, the subject matter of which is described in the patent application entitled "SYSTEM<br>AND METHOD FOR MINIMIZING HARDWARE RESOURCES FOR GIVEN PERFORMANCE USING WEIGHTED COST<br>MULTI-PATH FLOW DISTRIBUTION" (hereafter "Patent Application"),  |  |  |
| WHEREAS (if the left box is checked), the Patent Application was filed with the U.S. Patent and Trademark Office on, and, and, and   |  |  |
| <b>X</b> WHEREAS (if the left box is checked), the Patent Application names the following inventors:<br>Junian Zhou, Amin Vahdat, and Ariun Singh (and whereas I hereby authorize Lerner, David, Littenberg, Krumholz & Mentlik,<br>LLP, to insert in here in brackets (Application No. $13/359,698$ , filed on $1-27-12$ ] the application number<br>and filing date of the application when known), and  |  |  |
| WHEREAS, <u>Google Inc.</u> , Incorporated or otherwise formed in <u>Delaware</u> and having a place of business at <u>1600</u><br><u>Amphitheatre Parkway: Mountain View. California 94043</u> (hereafter, the "assignee") is desirous of acquiring, or has<br>acquired and is desirous of memorializing its acquisition further herein, the entire right, title and Interest in same;  |  |  |
| NOW, THEREFORE, for good and valuable consideration the receipt of which is hereby acknowledged, I agree<br>as follows. I agree to assign, and hereby do aesign, to the assignee my entire right, title and interest in and to the<br>Assigned Applications in the United States of America and all other countries, where "Assigned Applications" means the<br>Patent Application, including any and all inventions, discoveries and other subject matter described therein, any divisional,<br>continuation, continuation-in-part, substitute, relissue, re-examination or other application claiming priority or benefit to the<br>Patent Application pursuant to any law or treaty, and any patent Issuing from the foregoing. I agree to assign, and hereby<br>do assign, to assignee the right to claim such priority or benefit. I have not previously conveyed, nor am I aware of an<br>obligation to convey, my rights in the Assigned Applications to a third party. I hereby authorize the U.S. Patent and<br>Trademark Office, and any other governmental agency in the world, to issue to assignee all patents resulting from the<br>Assigned Applications end to record assignee's ownership thereof. At assignee's reasonable request I agree, without<br>further remuneration, to execute and deliver documents prepared at assignee's reasonable request I agree, without<br>further remuneration, as may be reasonably required to evidence or protect assignee's rights in the Assigned Applications.<br>Assignee may assign or transfer all or part of its rights set forth herein in its sole discretion. I agree that the assignee may<br>affix its signature to this document as well as any other indica of its acceptance of the provisions hereof. If any provision<br>herein is unenforceable, the requiremants of the provision shall remain to the full extent permissible by taw and the<br>offending portions thereof shall be deemed replaced, to the extent possible, with a provision most closely reflecting the<br>purpose of the offending provision. |  |  |
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| WHEREAS (If the left box is checked), the Patent Application was filed with the U.S. Patent and<br>Trademark Office on, Application Number, and, and, and, where we have a second s |   | Docket Number (Optional)   |
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| <pre>inventions or discoveries, the subject matter of which is described in the patient application entitled "SYSTEM AND METHOD FOR MINIMIZING HARDWARE RESOURCES FOR GIVEN PERFORMANCE USING WEIGHTED COST MULTI-PATH FLOW DISTRIBUTION" (hereafter "Patient Application").</pre>  | ASSIGNMENT OF PATENT APPLICATION  | GOOGLE 3.0-492   |
| as follows. I agree to assign, and hereby do assign, to the assignee my entire right, tills and interest in and to the<br>Assigned Applications in the United States of America and all other countries, where "Assigned Applications" means the<br>Patent Application, including any and all inventions, discoveries and other subject matter described therein, any divisional,<br>continuation, continuation-in-part, substitute, reissue, re-examination or other application claiming priority or benefit to the<br>Patent Application pursuant to any law or treaty, and any patent issuing from the foregoing. I agree to assign, and hereby<br>do assign, to assignee the right to claim such priority or benefit. I have not previously conveyed, nor am I aware of an<br>obligation to convey, my rights in the Assigned Applications to a third party. Thereby authorize the U.S. Patent and<br>Trademark Office, and any other governmental agency in the world, to issue to assignee all patents resulting from the<br>Assigned Applications and to record assignee's ownership thereof. At assignee's reasonable request I agree, without<br>turther remunoration, to execute and deliver documents prepared at assignee's reasonable request I agree, without<br>such as testimony, as may be reasonably required to evidence or protect assignee's rights in the Assignee may assignee that the assignee may assignee that the assignee may<br>affit its signature to this document as well as any other indicide of its acceptance of the provisions hereof. If any provision<br>herein is unenforceable, the requirements of the provision shall remain to the full extent permissible by law and the<br>purpose of the offending provision.  | inventions or discoveries, the subject matter of which is described in the METHOD FOR MINIMIZING HARDWARE RESOURCES FOR GIVEN F MULTI-PATH FLOW DISTRIBUTION" (hereafter "Patent Application"),  WHEREAS (If the left box is checked), the Patent Application v Trademark Office on, Application Number WHEREAS (if the left box is checked), the Patent Application r Junian Zhou, Amin Vandat, and Ariun Singh (and whereas I hereby autho LLP, to insert in here in brackets (Application No. <u>13/359,698</u> , fi and filing date of the application when known), and WHEREAS, <u>Google Inc.</u> , incorporated or otherwise formed in <u>E</u> Amphitheatre Parkway; Mountain View, California 94043 (hereafter, the  | patent application entitled "SYSTEM AND<br>PERFORMANCE USING WEIGHTED COST<br>was fijed with the U.S. Patent and<br>, and<br>hames the following inventors:<br>rize Lerner, David, Littenberg, Krumholz & Mentlik,<br>led on1-27-12] the application number<br><u>Relaware</u> , and having a place of business at <u>1600</u><br>"assignee") is desirous of acquiring, or has   |
| (Date)<br>(Date)<br>(Signature)<br>(Signature)<br>AMIT GUMMA  | as follows. I agree to assign, and hereby do assign, to the assignee my<br>Assigned Applications in the United States of America and all other cour<br>Patent Application, including any and all inventions, discoveries and other<br>continuation, continuation-in-part, substitute, reissue, re-examination or<br>Patent Application pursuant to any law or treaty, and any patent issuing<br>do assign, to assignee the right to claim such priority or benefit. I have r<br>obligation to convey, my rights in the Assigned Applications to a third pa<br>Trademark Office, and any other governmental agency in the world, to is<br>Assigned Applications and to record assignee's ownership thereof. At a<br>further remunoration, to execute and deliver documents prepared at ass<br>such as testimony, as may be reasonably required to evidence or protect<br>Assignee may assign or transfer all or part of its rights set forth herein in<br>fifts its signature to this document as well as any other indicia of its acce<br>parein is unenforceable, the requirements of the provision shall remain to<br>offending portions thereof shall be deemed replaced, to the extent possil | entire right, title and interest in and to the<br>inries, where "Assigned Applications" means the<br>er subject matter described therein, any divisional,<br>other application claiming priority or benefit to the<br>from the foregoing. I agree to assign, and hereby<br>iot praviously conveyed, nor am I aware of an<br>rty. I hereby authorize the U.S. Patent and<br>usue to assignee all patents resulting from the<br>ssignee's reasonable request I agree, without<br>ignee's expense and to provide other cooperation,<br>t assignee's rights in the Assigned Applications.<br>Its sole discretion. I agree that the assignee may<br>sptance of the provisions hereof. If any provision<br>of the full extent permissible by law and the |
| (Date) (Signature)<br>Alignature of Witness<br>AMIT GI UNITA  |   | a Olar   |
| Any Signature of Witness<br>AMIT Grunnary   | 1/20/12   | With hiller  |
| AMIT GUMMA  | ······································  | (Signature)  |
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| ASSIGNMENT OF PATENT APPLICATION  | Docket Number (Optional)  |  |
| Additionalent of Patent APPEloanda  | GOOGLE 3.0-492  |  |
| WHEREAS, I, <u>Ariun Singh</u> of <u>651 Franklin Street, #4309: Mountain View, California 94041</u> , have invented or<br>discovered inventions or discoveries, the subject matter of which is described in the patent application entitled "SYSTEM<br>AND METHOD FOR MINIMIZING HARDWARE RESOURCES FOR GIVEN PERFORMANCE USING WEIGHTED COST<br>MULTI-PATH FLOW DISTRIBUTION" (hereafter "Patent Application"),   |   |  |
| WHEREAS (if the left box is checked), the Patent Application was filed with the U.S. Patent and Trademark Office on, Application Number, and  |   |  |
| X WHEREAS (if the laft box is checked), the Patent Application names the following inventors: <u>Junian Zhou, Amin Vahdat, and Arlun Singh</u> (and whereas I hereby authorize Lerner, David, Littenberg, Krumholz & Mentlik, LLP, to insert in here in brackets (Application No. <u>13/359,698</u> , filed on <u>1-27-12</u> ] the application number and filing date of the application when known), and  |   |  |
| WHEREAS, <u>Google Inc.</u> , incorporated or otherwise formed in <u>De</u><br><u>Amphitheatra Parkway: Mountain View, California 94043</u> (hereafter, the<br>acquired and is desirous of memorializing its acquisition further herein, the  | assignee") is desirous of acquiring, or has   |  |
| NOW, THEREFORE, for good and valuable consideration the re<br>as follows. I agree to assign, and hereby do assign, to the assignee my er<br>Assigned Applications in the United States of America and all other countr<br>Patent Application, including any and all inventions, discoveries and other<br>continuation, continuation-in-part, substitute, relssue, re-examination or oth<br>Patent Application pursuant to any law or treaty, and any patent Issuing fro<br>do assign, to assignee the right to claim such priority or benefit. I have noi<br>obligation to convey, my rights in the Assigned Applications to a third party<br>Trademark Office, and any other governmental agency in the world, to isst<br>Assigned Applications and to record assignee's ownership thereof. At assigned<br>such as testimony, as may be reasonably required to evidence or protect a<br>Assignee may assign or transfer all or part of its rights all forth herein in its<br>affix its signature to this document eveil as any other Indica of Its accept<br>herein is unenforceable, the requirements of the provision shall remain to to<br>offending portions thereof shall be deemed replaced, to the extent possible<br>purpose of the offending provision. | ntire right, title and interest in and to the<br>les, where "Assigned Applications" means the<br>subject matter described therein, any divisional,<br>her application claiming priority or benefit to the<br>om the foregoing. I agree to assign, and hereby<br>I previously conveyed, nor am I aware of an<br>r. I hereby authorize the U.S. Patent and<br>is to assignee all patents resulting from the<br>Ignee's reasonable request I agree, without<br>hee's expense and to provide other cooperation,<br>assignee's rights in the Assigned Applications,<br>a sole discretion. I agree that the assignee may<br>lance of the provisions hereof. If any provision<br>he full extent permissible by law and the |  |
| $\frac{1/26/12}{(\text{Date})}$   | ju july<br>(Signature)  |  |
| Signature of Witness<br>AMIT GUPTA<br>Printed Name of Witness   |   |  |
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