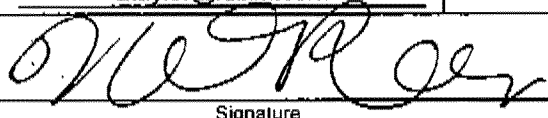


Form PTO-1595 (Rev. 03-11)
OMB No. 0651-0027 (exp. 03/31/2012)


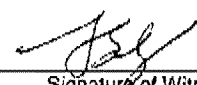
U.S. DEPARTMENT OF COMMERCE
United States Patent and Trademark Office

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): Junlan Zhou (01/25/2012), Amin Vahdat (01/25/2012), and Arjun Singh (01/24/2012)</p> <p>Additional name(s) of conveying party(ies) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>2. Name and address of receiving party(ies)</p> <p>Name: <u>Google Inc.</u></p> <p>Internal Address _____</p> <p>Street Address: _____</p> <p>1600 Amphitheatre Parkway</p> <p>City: <u>Mountain View</u></p> <p>State: <u>California</u></p> <p>Country: <u>United States of America</u> Zip: <u>94043</u></p> <p>Additional name(s) & address(es) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
<p>3. Nature of conveyance/Execution Date(s):</p> <p>Execution Date(s): <u>in parentheses after inventor name</u></p> <p><input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Change of Name</p> <p><input type="checkbox"/> Security Agreement <input type="checkbox"/> Joint Research Agreement</p> <p><input type="checkbox"/> Government Interest Assignment</p> <p><input type="checkbox"/> Executive Order 9424, Confirmatory License</p> <p><input type="checkbox"/> Other _____</p>	<p>4. Application or patent number(s): <input type="checkbox"/> This document is being filed together with a new application.</p> <p>A. Patent Application No.(s) <u>13/358,835</u></p> <p>B. Patent No.(s)</p> <p>Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
<p>5. Name and address to whom correspondence concerning document should be mailed:</p> <p>Name: <u>Natalie S. Richer</u> <u>LERNER, DAVID, LITTENBERG,</u> <u>KRUMHOLZ & MENTLIK, LLP</u></p> <p>Internal Address: <u>Atty. Dkt.: GOOGLE 3.0-466</u></p> <p>Street Address: <u>600 South Avenue West</u></p> <p>City: <u>Westfield</u></p> <p>State: <u>NJ</u> Zip: <u>07090</u></p> <p>Phone Number: <u>908-654-5000</u></p> <p>Fax Number: <u>908-654-7866</u></p> <p>Email Address: <u>ataylor@ldlkm.com</u></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></p> <p><input checked="" type="checkbox"/> Authorized to be charged to deposit account</p> <p><input type="checkbox"/> Enclosed</p> <p><input type="checkbox"/> None required (government interest not affecting title)</p> <p>8. Payment Information</p> <p>Deposit Account Number <u>12-1095</u></p> <p>Authorized User Name <u>Natalie S. Richer</u></p>
<p>9. Signature: </p> <p style="text-align: center;">Signature Date</p> <p style="text-align: center;"><u>Natalie S. Richer - 58,545</u> <u>January 31, 2012</u></p> <p style="text-align: center;">Name of Person Signing</p>	
<p>Total number of pages including cover sheet, attachments, and documents. 4</p>	

CH \$40.00 121095 13358835

<p align="center">ASSIGNMENT OF PATENT APPLICATION</p>	<p align="center">Docket Number (Optional) GOOGLE 3,0-466</p>
<p>WHEREAS, I, <u>Junlan Zhou of 1035 Aster Avenue, #2190, Sunnyvale, California 94086</u>, have invented or discovered inventions or discoveries, the subject matter of which is described in the patent application entitled "MULTI-STAGE SWITCHING TOPOLOGY" (hereafter "Patent Application").</p>	
<p><input type="checkbox"/> WHEREAS (if the left box is checked), the Patent Application was filed with the U.S. Patent and Trademark Office on _____, Application Number _____, and</p>	
<p><input checked="" type="checkbox"/> WHEREAS (if the left box is checked), the Patent Application names the following inventors: <u>Junlan Zhou, Amin Vahdat, and Arjun Singh</u> (and whereas I hereby authorize Lerner, David, Littenberg, Krumholz & Mentlik, LLP, to insert in here in brackets [Application No. <u>13/358,835</u>, filed on <u>1-26-12</u>] 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 align="center"><u>01/25/12</u> _____ (Date)</p>	<p align="center"> _____ (Signature)</p>
<p align="center"> _____ Signature of Witness</p>	
<p align="center"><u>JOON ONG</u> _____ Printed Name of Witness</p>	

ASSIGNMENT OF PATENT APPLICATION

Docket Number (Optional)

GOOGLE 3.0-466

WHEREAS, I, Amin Vahdat of 481 Casita Way, Los Altos, California 94022, have invented or discovered inventions or discoveries, the subject matter of which is described in the patent application entitled "MULTI-STAGE SWITCHING TOPOLOGY" (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

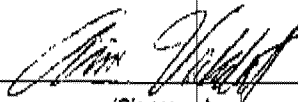
WHEREAS (if the left box is checked), the Patent Application names the following inventors: Junlan Zhou, Amin Vahdat, and Arjun Singh (and whereas I hereby authorize Lerner, David, Litlenberg, Krumholz & Mentlik, LLP, to insert in here in brackets [Application No. 13/358,835, filed on 1-26-12] the application number and filing date of the application when known), and

WHEREAS, Google Inc., incorporated or otherwise formed in Delaware and having a place of business at 1600 Amphitheatre Parkway, Mountain View, California 94043 (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;

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.

1/25/12

(Date)



(Signature)



Signature of Witness

TEON ONG

Printed Name of Witness

<p align="center">ASSIGNMENT OF PATENT APPLICATION</p>	<p align="center">Docket Number (Optional) GOOGLE 3.0-466</p>
<p>WHEREAS, I, <u>Arjun Singh of 851 Franklin Street, #4309, Mountain View, California 94041</u>, have invented or discovered inventions or discoveries, the subject matter of which is described in the patent application entitled "MULTI-STAGE SWITCHING TOPOLOGY" (hereafter "Patent Application"),</p> <p><input type="checkbox"/> WHEREAS (if the left box is checked), the Patent Application was filed with the U.S. Patent and Trademark Office on _____, Application Number _____, and</p> <p><input checked="" type="checkbox"/> WHEREAS (if the left box is checked), the Patent Application names the following inventors: <u>Junlan Zhou, Amin Vahdat, and Arjun Singh</u> (and whereas I hereby authorize Lerner, David, Littenberg, Krumholz & Mentlik, LLP, to insert in here in brackets [Application No. <u>13/358,835</u>, filed on <u>1-26-12</u>] 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>24 Jan 2012</u> (Date)</p> <p><u>Arjun Singh</u> (Signature)</p> <p><u>[Signature]</u> Signature of Witness</p> <p><u>Arjun Singh</u> Printed Name of Witness</p>	