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) belogen to the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) belogen to the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) belogen to the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) belogen to the Director of the U.S. Patent Address: 2. Name and address of receiving party(lea) Name: Google Inc. Internal Address Street Address: 3. Nature of conveyance/Execution Date(s): Execution Date(s): In parentheses after Inventor name Security Agreement Joint Research Agreement Government Interest Assignment Executive Order 9424, Confirmatory License Other 4. Application or patent number(e): A Patent Application No.(s) 13/358,835 Additional numbers attached? Yes X No	
To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) belows 1. Name of conveying party(les): Junian Zhou (01/25/2012), Amin Vahdat (01/25/2012), Amin Vahdat (01/25/2012), and Arjun Singh (01/24/2012) Additional name(s) of conveying party(las) attached?	
1. Name of conveying party(les): Junian Zhou (01/25/2012), Amin Vahdat (01/25/2012), and Arjun Singh (01/24/2012) Additional name(s) of conveying party(les) attached? Yes X No 3. Nature of conveyance/Execution Date(s): Execution Date(s): In parentheses after inventor name X Assignment Merger Change of Name Government Interest Assignment Executive Order 9424, Confirmatory License Other 4. Application or patent number(s): A. Patent Application No.(s) 13/358,835	w.
Junian Zhou (01/25/2012), Amin Vahdat (01/25/2012), and Arjun Singh (01/24/2012) Additional name(s) of conveying party(les) attached? Yes x No 3. Nature of conveyance/Execution Date(s): Execution Date(s): In parentheses after inventor name Security Agreement Joint Research Agreement Government Interest Assignment Executive Order 9424, Confirmatory License Other 4. Application or patent number(s): A. Patent Application No.(s) 13/358,835	
(01/25/2012), and Arjun Singh (01/24/2012) Additional name(s) of conveying party(les) attached? Yes X No 3. Nature of conveyance/Execution Date(s): Execution Date(s): In parentheses after inventor name X Assignment Merger Change of Name Security Agreement Joint Research Agreement Government Interest Assignment Executive Order 9424, Confirmatory License Other 4. Application or patent number(e): A. Patent Application No.(s) 13/358,835	
Additional name(s) of conveying party(las) attached? Yes X No	
3. Nature of conveyance/Execution Date(s): Execution Date(s): In parentheses after inventor name X Assignment	
Execution Date(s): In parentheses after Inventor name X Assignment Merger Change of Name Security Agreement Government Interest Assignment Executive Order 9424, Confirmatory License Other Country: United States of America ZIp: 94043 Additional name(s) & address(es) Additional name(s) & address(es) This document is being filed together with a new application. A. Patent Application No.(s) 13/358,835	
X Assignment	
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 Additional name(s) & address(es) Yes X No attached? 4. Application or patent number(e): A. Patent Application No.(s) 13/358,835	
Government Interest Assignment Executive Order 9424, Confirmatory License Other Other Application or patent number(e): A. Patent Application No.(s) 13/358,835 State: Country: United States of America Zip: 94043 Additional name(s) & address(es) Yes X No This document is being filed together with a new application. B. Patent No.(s)	
Executive Order 9424, Confirmatory License Other Other Additional name(s) & address(es) This document is being filed together with a new application. A. Patent Application No.(s) 13/358,835 Country: United States of America Zip: 94043 Additional name(s) & address(es) Yes X No This document is being filed together with a new application. B. Patent No.(s)	
Other Additional name(s) & address(es) Yes X No attached? 4. Application or patent number(e): A. Patent Application No.(s) 13/358,835 Additional name(s) & address(es) Yes X No attached? This document is being filed together with a new application. 8. Patent No.(s)	
4. Application or patent number(s): A. Patent Application No.(s) 13/358,835 attached? This document is being filed together with a new application. 8. Patent No.(s)	
A. Patent Application No.(s) 13/358,835 6. Patent No.(s)	
Additional numbers attached? Yes X No	
5. Name and address to whom correspondence concerning document should be mailed: 6. Total number of applications and patents involved:	
Name: Natalie S. Richer LERNER, DAVID, LITTENBERG, KRUMHOLZ & MENTLIK, LLP 7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00	
Internal Address: Atty. Dkt.: GOOGLE 3.0-466 Street Address: 600 South Avenue West X Authorized to be charged to deposit account	
Enclosed None required (government Interest not affecting	tille)
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@idikm.com Authorized User Name Natalie S. Richer	
9. Signature: January 31, 2012	
Signature Date	
Natalie S. Richer - 58,545 Name of Person Signing Total number of pages including cover sheet, attachments, and documents.	_ _

1597038 14000

PATENT REEL: 027629 FRAME: 0914

700479277

	Docket Number (Optional)			
ASSIGNMENT OF PATENT APPLICATION	GOOGLE 3.0-466			
WHEREAS, I, Junian Zhou of 1035 Aster Avenue, #2190; Sunnyvale, California 94086, 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				
X WHEREAS (if the left box is checked), the Patent Application names the following Inventors: <u>Junian Zhou, Amin Vahdat, and Ariun 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 filling date of the application when known), and				
WHEREAS, Google Inc., incorporated or otherwise formed in <u>Delaware</u> and having a place of business at <u>1600</u> Amphitheatre Parkway: Mountain View, Callfornia <u>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;				
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.				
	all			
01/25/12	X.			
(Date)	(Signature)			
Signature of Witness JOHN ONG	;			
Printed Name of Witness				
	,			
	1			
	t			

	D- J-	IM
ASSIGNMENT OF PATENT APPLICATION	GOOGLE 3.0-46	Number (Optional)
WHEREAS, I, Amin Vahdat of 481 Caslta Way: Los Altos, Califo Inventions or discoveries, the subject matter of which is described in the p SWITCHING TOPOLOGY" (horeafter "Patent Application"),	<u>rnia 94022,</u> have in atent application en	vented or discovered litled "MULTI-STAGE
WHEREAS (if the left box is checked), the Patent Application was Trademark Office on, Application Number	Patent and	
WHEREAS (If the left box is checked), the Patent Application na Junian Zhou. Amin Vahdat, and Ariun Singh (and whereas I hereby authorit LLP, to insert in here in brackets [Application No. <u>13/358.835</u> , file and filing date of the application when known), and	anhara Krumhair 9 Mantilk	
WHEREAS, Google Inc., incorporated or otherwise formed in <u>Qe</u> <u>Amphitheatre Parkway: Mountain View, California 94043</u> (hereafter, the "acquired and is desirous of memorializing its acquisition further herein, the	assionee") is desirou	is of acquiring or has
NOW, THEREFORE, for good and valuable consideration the re as follows. I agree to assign, and hereby do assign, to the assignee my er Assigned Applications in the United States of America and all other countries and Application, including any and all Inventions, discoveries and other continuation, continuation-in-part, substitute, relssue, re-examination or off Patent Application pursuant to any law or treaty, and any patent issuing from the designee the right to claim such priority or benefit. I have not obligation to convey, my rights in the Assigned Applications to a third party Trademark Office, and any other governmental agency in the world, to issuffur remuneration, to execute and deliver documents prepared at assigned as testimony, as may be reasonably required to evidence or protect a Assignee may assign or transfer all or part of its rights set forth herein in its affix its signature to this document as well as any other indicia of ite accept herein is unenforceable, the requirements of the provision shall remain to to offending portions thereof shall be deemed replaced, to the extent possible purpose of the offending provision.	ntire right, title and li les, where "Assigne subject matter desc bette application claim om the foregoing. I in t previously conveye , I hereby authorize ue to assignee all pa lignee's reasonable in assignee's rights in the assignee's rights in the same and the provision. I as	terest in and to the displayment Applications" means the fibed therein, any divisional, ing priority or benefit to the agree to assign, and hereby of, nor am I aware of an the U.S. Patent and tents resulting from the request I agree, without o provide other cooperation, he Assigned Applications, gree that the assignee may not hereof. If any provision withe bullaw and the
1/25/12-	Air I	idd f
(Date)	(Signatur	e)
Signature of Witness <u>てこのドーヴァン。</u> Printed Name of Witness		
Third reality of Williams		•

PATENT

REEL: 027629 FRAME: 0916

ASSIGNMENT OF PATENT APPLICATION	Docket GOOGLE 3.0-46	Number (Optional)

WHEREAS, I, <u>Ariun Singh</u> of 851 Franklin Street, #4309: Mountaidiscovered inventions or discoveries, the subject matter of which is described STAGE SWITCHING TOPOLOGY" (hereafter "Patent Application"),	ain View, California oed In the patent ap	94041, have invented or plication entitled "MULTI-
WHEREAS (if the left box is checked), the Patent Application was Trademark Office on, Application Number	s filed with the U.S , and	Patent and
WHEREAS (if the left box is checked), the Patent Application na Junian Zhou, Amin Vahdat, and Arjun Singh (and whereas I hereby authorit LLP, to insert in here in brackets (Application No. <u>13/358,835</u> , file and filling date of the application when known), and	ze Lerner, David, Lit	lenberg, Krumholz & Mentlik,
WHEREAS, <u>Google Inc.</u> , incorporated or otherwise formed In <u>De</u> <u>Amphitheatre Parkway: Mountain View, California 94043</u> (hereafter, the "a acquired and is desirous of momorializing its acquisition further herein, the	assignee") ls desiro	us of acquiring, or has
NOW, THEREFORE, for good and valuable consideration the reas follows. I agree to assign, and hereby do assign, to the assignee my existent Applications in the United States of America and all other country Patent Application, including any and all inventions, discoveries and other continuation, continuation-in-part, substitute, reissue, re-examination or of Patent Application pursuant to any law or treaty, and any patent issuing freedo assign, to assignee the right to claim such priority or benefit. I have no obligation to convey, my rights in the Assigned Applications to a third party Trademark Office, and any other governmental agency in the world, to issuing Assigned Applications and to record assigneo's ownership thereof. At assigned Applications, as may be reasonably required to evidence or protect assignee may assign or transfer all or part of its rights set forth herein in its affix its signature to this document as well as any other indicts of its accept herein is unenforceable, the requirements of the provision shall remain to offending portions thereof shall be deemed replaced, to the extent possible purpose of the offending provision.	ntire right, title and it ies, where "Assigne subject matter desponding the repolication claim the foregoing. It previously convey if increby authorizue to assignee all palignee's reasonable nee's expense and assignee's fights in a sole discretion. It is tance of the provisithe full extent permites.	nterest in and to the discrete in Applications' means the ribed therein, any divisional, aling priority or benefit to the agree to assign, and hereby ad, nor am I aware of an a the U.S. Patent and atents resulting from the request I agree, without to provide other cooperation, the Assigned Applications, agree that the assignee may bus hereof. If any provision is allowed the police in the assignee may bus hereof. If any provision is allowed the the assignee may bus hereof.
24 Jan 2012 +	Yun	TO TO
Signature of Witness	:	
ว์ฮกห งษ(, Printed Name of Witness		

PATENT

REEL: 027629 FRAME: 0917