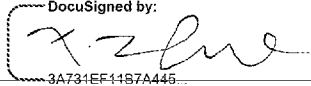


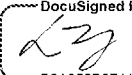
PATENT ASSIGNMENT COVER SHEET

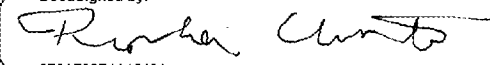
Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT6658040

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
XIANG ZHOU	04/09/2021
CEDRIC F. LAM	04/09/2021
RYOHEI URATA	04/09/2021
HONG LIU	04/09/2021
RECEIVING PARTY DATA	
Name:	GOOGLE LLC
Street Address:	1600 AMPHITHEATRE PARKWAY
City:	MOUNTAIN VIEW
State/Country:	CALIFORNIA
Postal Code:	94043
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	17228098
CORRESPONDENCE DATA	
Fax Number:	(908)654-7866
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
Phone:	(908) 654-5000
Email:	assignment@lerner david.com
Correspondent Name:	LERNER, DAVID, LITTENBERG, KRUMHOLZ & MENTLIK, LLP
Address Line 1:	20 COMMERCE DR.
Address Line 4:	CRANFORD, NEW JERSEY 07016
ATTORNEY DOCKET NUMBER:	GOOGLE 3.0F-3222 II
NAME OF SUBMITTER:	MELINDA C. CORMIER
SIGNATURE:	/Melinda C. Cormier/
DATE SIGNED:	04/15/2021
Total Attachments: 4	
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ASSIGNMENT OF PATENT APPLICATION	Docket Number (Optional) GOOGLE 3.0F-3222 II
<p>WHEREAS, I, <u>Xiang Zhou</u> of <u>Sunnyvale, California</u>, have invented or discovered inventions or discoveries, the subject matter of which is described in the patent application entitled "System, Apparatus, and Architecture For Migrating An Optical Communication Network" (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>Xiang Zhou, Cedric F. Lam, Ryohei Urata, and Hong Liu</u> (and whereas I hereby authorize Lerner, David, Littenberg, Krumholz & Mentlik, LLP, to insert in here in brackets [Application No. <u>17/228,098</u>, filed on <u>April 12, 2021</u>] the application number and filing date of the application when known), and</p> <p>WHEREAS, <u>Google LLC</u>, incorporated or otherwise formed in <u>Delaware</u> and having a place of business at <u>1600 Amphitheatre Parkway, Mountain View, CA 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>I further agree to assign, and hereby do assign, to assignee my entire right, title and interest in and to Provisional Application No. <u>63/155,003</u>, filed <u>March 1, 2021</u>, such provisional application being considered an Assigned Application for all purposes herein.</p> <p style="text-align: center;">4/9/2021 _____ (Date)</p> <p style="text-align: center;">  <small>3A731EF41B7A445</small> _____ (Signature) </p>	

ASSIGNMENT OF PATENT APPLICATION	Docket Number (Optional) GOOGLE 3.0F-3222 II
<p>WHEREAS, I, <u>Cedric F. Lam</u> of <u>San Jose, California</u>, have invented or discovered inventions or discoveries, the subject matter of which is described in the patent application entitled "System, Apparatus, and Architecture For Migrating An Optical Communication Network" (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>Xiang Zhou, Cedric F. Lam, Ryohei Urata, and Hong Liu</u> (and whereas I hereby authorize Lerner, David, Littenberg, Krumholz & Mentlik, LLP, to insert in here in brackets [Application No. <u>17/228,098</u>, filed on <u>April 12, 2021</u>] the application number and filing date of the application when known), and</p> <p>WHEREAS, <u>Google LLC</u>, incorporated or otherwise formed in <u>Delaware</u> and having a place of business at <u>1600 Amphitheatre Parkway, Mountain View, CA 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>I further agree to assign, and hereby do assign, to assignee my entire right, title and interest in and to Provisional Application No. <u>63/155,003</u>, filed <u>March 1, 2021</u>, such provisional application being considered an Assigned Application for all purposes herein.</p> <p>4/9/2021 _____ (Date)</p> <p>DocuSigned by:  B9A358B37419415... _____ (Signature)</p>	

ASSIGNMENT OF PATENT APPLICATION	Docket Number (Optional) GOOGLE 3.0F-3222 II
<p>WHEREAS, I, <u>Ryohei Urata</u> of <u>San Carlos, California</u>, have invented or discovered inventions or discoveries, the subject matter of which is described in the patent application entitled "System, Apparatus, and Architecture For Migrating An Optical Communication Network" (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>Xiang Zhou, Cedric F. Lam, Ryohei Urata, and Hong Liu</u> (and whereas I hereby authorize Lerner, David, Littenberg, Krumholz & Mentlik, LLP, to insert in here in brackets [Application No. <u>17/228,098</u>, filed on <u>April 12, 2021</u>] the application number and filing date of the application when known), and</p> <p>WHEREAS, <u>Google LLC</u>, incorporated or otherwise formed in <u>Delaware</u> and having a place of business at <u>1600 Amphitheatre Parkway, Mountain View, CA 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>I further agree to assign, and hereby do assign, to assignee my entire right, title and interest in and to Provisional Application No. <u>63/155,003</u>, filed <u>March 1, 2021</u>, such provisional application being considered an Assigned Application for all purposes herein.</p> <p>4/9/2021 _____ (Date)</p> <p>DocuSigned by:  6F0A702E4A15464... _____ (Signature)</p>	

ASSIGNMENT OF PATENT APPLICATION	Docket Number (Optional) GOOGLE 3.0F-3222 II
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WHEREAS, I, Hong Liu of Palo Alto, California, have invented or discovered inventions or discoveries, the subject matter of which is described in the patent application entitled "System, Apparatus, and Architecture For Migrating An Optical Communication Network" (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: Xiang Zhou, Cedric F. Lam, Ryohei Urata, and Hong Liu (and whereas I hereby authorize Lerner, David, Littenberg, Krumholz & Mentlik, LLP, to insert in here in brackets [Application No. 17/228,098, filed on April 12, 2021] the application number and filing date of the application when known), and

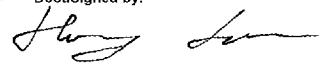
WHEREAS, Google LLC, incorporated or otherwise formed in Delaware and having a place of business at 1600 Amphitheatre Parkway, Mountain View, CA 94043 (hereafter, the "assignee") is desirous of acquiring, or has acquired and is desirous of memorializing its acquisition further herein, the entire right, 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.

I further agree to assign, and hereby do assign, to assignee my entire right, title and interest in and to Provisional Application No. 63/155,003, filed March 1, 2021, such provisional application being considered an Assigned Application for all purposes herein.

4/9/2021

(Date)

DocuSigned by:


214B6AE87E084B4... (Signature)