504669791 12/04/2017 PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4716513

SUBMISSION TYPE:		NEW ASSIGNMENT	NEW ASSIGNMENT		
NATURE OF CONVEYANCE:		ASSIGNMENT	ASSIGNMENT		
CONVEYING PARTY D	ATA				
		Name	Name Execution Date		
GOOGLE LLC			10/30/2017		
RECEIVING PARTY DA	тΔ				
Name:		VELOPMENT LLC			
Street Address:		0 AMPHITHEATRE PARKWAY			
City:	MOUNTAIN VIEW				
State/Country:	CALIFORNIA				
Postal Code:	94043				
PROPERTY NUMBERS	Total: 1				
Property Type		Number			
Application Number:	15	5708864			
CORRESPONDENCE D					
Fax Number:	(8	977)769-7945	uccocciul it will be cont		
Fax Number: <i>Correspondence will b</i>	(8 e sent to t	077)769-7945 he e-mail address first; if that is uns if that is unsuccessful, it will be sen t			
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ASSIGNMENT

WHEREAS, GOOGLE LLC, a Delaware limited liability company, having a place of business at 1600 Amphitheatre Parkway, Mountain View, CA 94043 ("ASSIGNOR"), is the owner of the entire right, title and interest in and to the patents and/or patent applications listed in the attached Schedule A ("PATENTS AND PATENT APPLICATIONS").

WHEREAS, X DEVELOPMENT LLC, a limited liability company organized under the laws of the State of Delaware, having a place of business at 1600 Amphitheatre Parkway, Mountain View, CA 94043 ("ASSIGNEE"), desires to obtain the entire right, title and interest in and to the PATENTS AND PATENT APPLICATIONS.

NOW, THEREFORE, in consideration of the good and valuable consideration received by ASSIGNOR from ASSIGNEE, the receipt and sufficiency of which is hereby acknowledged, ASSIGNOR hereby assigns and transfers to ASSIGNEE the entire right, title and interest in and to the PATENTS AND PATENT APPLICATIONS, and all rights of enforcement thereto, including all rights to sue or recover for the past infringement thereof, and further including the right to file and prosecute in its own name, wherever so permitted by law, patent applications, including corresponding applications, based on any of the PATENTS AND PATENT APPLICATIONS, and to claim priority to any of the PATENTS AND PATENT APPLICATIONS pursuant to the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes. ASSIGNEE may apply for and receive patents in its own name wherever so permitted by law and ASSIGNOR shall, when requested by ASSIGNEE, execute or cause to be executed all rightful oaths, assignments, and powers of attorney to ASSIGNEE or to agents and legal representatives of ASSIGNEE, and all other papers necessary and proper to carry out the intent and purpose of this Assignment, and ASSIGNOR further agrees:

a. to execute all papers necessary in connection with the PATENTS AND PATENT APPLICATIONS, and any continuing, divisional, reissue, reexamination or other corresponding application thereof and to execute any separate Assignment in connection with such application as ASSIGNEE may deem necessary or expedient; and

b. to perform all affirmative acts which may be necessary to obtain a grant of a valid patent to ASSIGNEE on any of the PATENTS AND PATENT APPLICATIONS and on any

Page 1 of 4

continuation, division, reissue or reexamination of any of the PATENTS AND PATENT APPLICATIONS.

ASSIGNOR retains no ownership rights in the patent applications, the patents, the inventions, and the rights transferred to ASSIGNEE hereunder.

IN WITNESS WHEREOF, ASSIGNOR has caused this Assignment to be executed by its duly authorized representative on this 3 day of 0 ctables, 2017.

GOOGLE LLC

By:

Internet of Chan

Jeremiah Chan

Title: Assistant Secretary

Date: 000000 39, 2017

State of California

County of _____

On _____, before me personally appeared _____

who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

(Seal)

Notary Public

Page 2 of 4

ASSIGNEE hereby accepts receipt of the entire right, title and interest in and to the PATENTS AND PATENT APPLICATIONS.

X DEVELOPMENT LLC

By: Jeffery Scott Heileson

Title: Senior Patent Counsel

Date: $\frac{11/13}{2017}$

State of California County of <u>Santa Clara</u>

On 1-13-17, before me personally appeared 5cott Herbornwho proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

(Seal)

Notary Public

Page 3 of 4

SCHEDULE A

Reference No.	Jurisdiction	Application	Filing	Patent	Issue Date
-		Number	Date	Number	
13-961-PRO	US	61/847,075	7/16/13	~	- **
13-961-US	US	14/333,423	7/16/14	9,441,820	9/13/16
13-1300	US	61/882,588	9/25/13	-	-
13-1300-US	US	14/490,340	9/18/14	9,488,901	11/08/16
13-1336	US	14/094,674	12/2/13	9,157,795	10/13/15
13-1336-US-CON	US	14/849,086	9/9/15		-
13-1728	US	14/198,574	3/5/14	9,223,192	12/29/15
14-460	US	62/001,517	5/21/14	-	-
14-460-US	US	14/333,335	7/16/14	9,278,449	3/8/16
14-460-US-CON	US	15/006,290	1/26/16	_	-
14-462	US	14/295,168	6/3/14	9,308,647	4/12/16
14-462-WO	WO	PCT/US2015/02 8528	4/30/15	-	-
14-462-WO-CN	CN	201580028216.1	11/28/16	-	-
14-462-WO-EP	EP	15725143.0	10/11/16	-	-
14-462-US-CON	US	15/059,540	3/3/16	-	-
14-459	US .	14/242,828	4/1/14	-	-
14-459-US-CON	US	15/616,096	6/7/17	-	-
14-459-WO	WO	PCT/US2015/02 3358	3/30/15	-	-
14-459-WO-CN	ĊN	201580027799.6	11/25/16	· _	- 1
14-459-WO-EP	EP	15719329.3	9/27/16	-	-
14-463	US	14/242,840	4/1/14	-	-
14-463-WO	WO	PCT/US2015/02 3359	3/30/15	-	-
14-463-WO-CN	CN	201580028260.2	11/28/16	-	-
14-463-WO-EP	EP	15717719.7	9/27/16	-	-
14-461	US	62/001,521	5/21/14	-	-
14-461-US	US	14/333,311	7/16/16	-	-
14-461-WO	WO	PCT/US2015/02 8526	4/30/15	-	
14-461-WO-CN	CN	201580025396.8	11/16/16		
14-461-WO-EP	EP	15725142.2	10/11/16	_	_
14-461-US-CON	US	15/384,273	12/19/16	-	-

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

CIVIL CODE § 1189

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A notary public or other officer completing this certificate ve to which this certificate is attached, and not the truthfulne	erifies only the identity of the individual who signed the document ss, accuracy, or validity of that document.			
State of California				
County of Santa Clara				
	Condoos Obour Materic Dublis			
On <u>しんやりに 30, 201</u> before me, <i>Date</i>	Here Insert Name and Title of the Officer			
personally appeared				
	Name(s) of Signer(s)			
to the within instrument and acknowledged to me th	nature(s) on the instrument the person(s), or the entity			
CANDACE CHOW Notary Public - California Santa Clara County Commission # 2187100 My Comm. Expires Apr 15, 2021	I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct. WITNESS my hand and official seal.			
	Signature			
Place Natary Seal and/or Stamp Above	Signature Signature of Notary Public			
OPT				
Completing this information can	deter alteration of the document or form to an unintended document.			
Description of Attached Document				
Title or Type of Document:				
Document Date:	Number of Pages:			
Signer(s) Other Than Named Above:				
Corporate Officer – Title(s): Partner – Limited General	Signer's Name: Corporate Officer – Title(s): Partner – Limited Anneal			
Individual Attorney in Fact Guardian of Conservator	Individual I			
D Other:	D Other:			
Signer is Representing:	Signer is Representing:			

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PATENT REEL: 044289 FRAME: 0343

ACKNOWLEDGMENT A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document. State of California County of <u>Santa Clara</u>) On November 13, 2017 before me, Scott Crowell, Notary Public (insert name and title of the officer) personally appeared Jeffery Scutt Heikson who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument. I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct. WITNESS my hand and official seal. SCOTT WILLIAM CROWELL Notary Public ~ California Santa Clara County Signature <u>b</u> Caul Commission # 2205711 My Comm. Expires Jul 17, 2021 (Seal)

RECORDED: 12/04/2017