504965294 06/18/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5012040

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SUNIL KOTHARI	11/13/2015
MICHAEL L. REASONER	11/20/2015
THOMAS J. PECK	11/20/2015
DOUGLAS A. SEXTON	11/16/2015
FRANCISCO OBLEA	11/13/2015
JUN ZENG	11/13/2015
GARY J. DISPOTO	11/13/2015

RECEIVING PARTY DATA

Name:	Hewlett-Packard Development Company, L.P.
Street Address:	11445 Compaq Center Drive West
City:	Houston
State/Country:	TEXAS
Postal Code:	77070

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15764326

CORRESPONDENCE DATA

Fax Number: (970)778-4063

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.

Phone: (541)715-8443 **Email:** ipa.mail@hp.com

Correspondent Name: HP INC.

Address Line 1:3390 E. HARMONY ROAD MS 35Address Line 2:INTELLECTUAL PROPERTY

Address Line 4: FORT COLLINS, COLORADO 80528

ATTORNEY DOCKET NUMBER:	84945180
NAME OF SUBMITTER:	HEATHER MULKEY
SIGNATURE:	/Heather Mulkey/
DATE SIGNED:	06/18/2018

PATENT 504965294 REEL: 046122 FRAME: 0725

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PATENT REEL: 046122 FRAME: 0726

HP Inc.
3390 E. Harmony Road
Mail Stop 35
Fort Collins, Colorado 80528

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RECORD ID:	84347123

ASSIGNMENT OF PATENT APPLICATION

I/We, the undersigned (each), for good and valuable consideration, the receipt of which is hereby acknowledged, and in furtherance of my/our obligations to HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P., a Texas Limited Partnership having its principal place of business in Houston, Texas, (hereinafter HPDC), and to its subsidiaries and affiliates, agree to assign and transfer and hereby assign and transfer to HPDC, its successors and assigns, the entire right, title and interest, including the right of priority, in, to and under an application for Patent and Interest.

assigns, the e entitled:	entire right, title ar	nd interest, including th	ie right of priority	y, in, to	and und	er an appli	cation for Patent
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Filing Date:	November 23,	2015	Application	n No.: _	PCT/U	S2015/06	32116
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I/we furthe application for i known to them.	er authorize and c Patent, now identifi	lirect the attorneys of a ad by the Record ID and the hereunto set my/ou	l title set forth abo	rve, as so	date and oon as the	i applicatio same sha	n number of said Il have been made
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Michael L		Reasoner					
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Rev 8/2014 (Assignir	nent)	Pa	ge 1 of 2				

PATENT REEL: 046122 FRAME: 0727 HP Inc. 3390 E. Harmony Road Mail Stop 35

PATENT APPLICATION

Mail Stop 35 Fort Collins, Colorado 80528		RECORD ID:	84347123
1	ASSIGNMENT OF PAT	TENT APPLICATION (cont.))
		20	Nov 15
Inventor's Signature		Date	
Thomas J	Peck		
First/Middle Name	Last Name	***************************************	
Inventor's Signature		Date	
Douglas A	Sexton		
First/Middle Name	Last Name		
Inventor's Signature		Date	
Francisco	Oblea		
First/Middle Name	Last Name		
Inventor's Signature		Date	
Jun	Zeng		
First/Middle Name	Last Name		
Inventor's Signature		Date	
Gary J	Dispoto		
First/Middle Name	Last Name		
Inventor's Signature		Date	
First/Middle Name	Last Name		

Page 2 of 2

HP Inc. 3390 E. Harmony Road	
Mail Stop 35	
Fort Collins, Colorado 80528	

Rev 8/2014 (Assignment)

HP Inc. 3390 E. Harmony Road			PATENT APPLICATION
Mail Stop 35		RECORD ID:	84347123
I/We, the undersigned and in furtherance of my Limited Partnership havin subsidiaries and affiliates, assigns, the entire right, the entitled: DATA USAGE EFFECTIV Filling Date: November and the invention(s) and implicationals, and renewals of countries thereto which may Patent. I/we additionally author	(each), for good and valua //our obligations to HEWL ig its principal place of the agree to assign and transfitte and interest, including ENESS DETERMINATION er 23, 2015 herovement(s) set forth the if and substitutes for said y be granted thereon or the ize HPDC to file applications	F PATENT APPLICATION ble consideration, the receipt of ETT-PACKARD DEVELOPME ousiness in Houston, Texas, er and hereby assign and transithe right of priority, in, to and Application No.: Prein, and any and all continuation application for said Patent, and refore; and any reissues, or rees in my/our name for Patent in a	f which is hereby acknowledged, ENT COMPANY, L.P., a Texas (hereinafter HPDC), and to its fer to HPDC, its successors and under an application for Patent CT/US2015/062116 Ons, continuations-in-part (C-I-P's) any and all other Patent of any xaminations, or extensions of sake the country, to be held and enjoyed
by HPDC, its successors, a	essigns, nominees or legal ragranted, reissued or exten	representatives, to the full end of ded, as fully and entirely as the	f the term or terms for which said same would have been held and
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I/we further authorize application for Patent, now is known to them.	and direct the attomeys o dentified by the Record ID a	f record to insert the filing date nd title set forth above, as soon	e and application number of sak as the same shall have been made
IN WITNESS WHEREC	PF, I/we hereunto set my/o	our hand(s) and seal(s):	
Inventor's Signature		Date	
Sunil	Kothari		
First/Middle Name	Last Name		
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Inventor's Signature		Date	
Michael L	Reasoner		
First/Middle Name	Last Name		

PATENT REEL: 046122 FRAME: 0729

Page 1 of 2

HP Inc. 3390 E. Harmony Road Mail Stop 35 Fort Collins, Colorado 80528

PATENT APPLICATION

Mail Stop 35 Fort Collins, Colorado 80528		RECORD ID: 84347123
	ASSIGNMENT OF PATENT	APPLICATION (cont.)
nventor's Signature		Date
Thomas J	Peck	
First/Middle Name	Last Name	
nventor's Signature		
© Douglas A	Sexton	
First/Middle Name	Last Name	
nventor's Signature		Date
Francisco	Oblea	
First/Middle Name	Last Name	
inventor's Signature		Date .
Jun	Zeng	
First/Middle Name	Last Name	•
Inventor's Signature		Date
Gary J	Dispoto	
First/Middle Name	Last Name	
Inventor's Signature		Date
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Page 2 of 2

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to come of	3390 E. Harmony Road
	Mail Stop 35
	Fort Collins, Colorado 80528

PATENT APP		۵	TIME
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ASSIGNMENT OF PATENT APPLICATION

I/We, the undersigned (each), for good and valuable consideration, the receipt of which is hereby acknowledged, and in furtherance of my/our obligations to HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P., a Texas Limited Partnership having its principal place of business in Houston, Texas, (hereinafter HPDC), and to its subsidiaries and affiliates, agree to assign and transfer and hereby assign and transfer to HPDC, its successors and

assigns, the e entitled:	entire right, title and interest, including	the right of priority, in, to	and under an application for Patent		
DATA USAGI	DATA USAGE EFFECTIVENESS DETERMINATION				
Filing Date:	November 23, 2015	Application No.:	PCT/US2015/062116		
divisionals, and	tion(s) and improvement(s) set forth theid renewals of and substitutes for said ato which may be granted thereon or the	application for said Patent	t, and any and all other Patent of any		
by HPDC, its s Patent respect	ionally authorize HPDC to file application successors, assigns, nominees or legal in fively may be granted, reissued or exten for had this assignment, and transfer not	representatives, to the full orded, as fully and entirely a	end of the term or terms for which said		
executed and v	hereby covenant that I/we have full right will not execute any agreement in confliction is made, and without undue delay, execu	t herewith, and I/we further	covenant and agree that I/we will, each		

perfect the title to said invention(s) or improvement(s), said application and said Patent, to HPDC, its successors, assigns, nominees or legal representatives, and I/we agree to communicate to HPDC, or to its nominee, all known facts respecting said invention(s) or improvement(s), said application and said Patent, to testify in any legal proceedings, to sign all lawful papers, to execute all disclaimers and divisionals, continuations, C-I-P's, reissue and foreign applications, to make all rightful oaths and declarations, and generally to do everything possible to aid HPDC, its successors, assigns, nominees and legal representatives to obtain and enforce, for its or their own benefit, proper patent protection for said invention(s) or improvement(s) in any and all countries provided the expenses which may be incurred by me/us in lending such cooperation and assistance are paid by HPDC;

AND I/we hereby authorize and request the official of any country or countries whose duty it is to issue patents on applications as aforesaid, to issue to HPDC, as assignee of the entire right, title and interest, any and all Patent for said invention(s) or improvement(s) which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.

I/we further authorize and direct the attorneys of record to insert the filing date and application number of said application for Patent, now identified by the Record ID and title set forth above, as soon as the same shall have been made known to them.

IN WITNESS WHERE	OF, I/we hereunto set	: my/our hand(s) an	d seal(s):	291	11/13/2015
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PATENT APPLICATION

Mail Stop 35 Fort Collins, Colorado 80528		RECORD ID:	84347123
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Inventor's Signature		Date	
Thomas J	Peck		
First/Middle Name	Last Name		
Inventor's Signature		Date	•••••••••••••••••••••••••••••••••••••••
Douglas A	Sexton		
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Francisco	Oblea		
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Jun	Zeng		
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Gary J	Dispoto	······································	
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Page 2 of 2

HP Inc.
3390 E. Harmony Road
Mail Stop 35
Fort Collins, Colorado 80528

Rev 8/2014 (Assignment)

RECORD ID:	84347123
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ASSIGNMENT OF PATENT APPLICATION

I/We, the undersigned (each), for good and valuable consideration, the receipt of which is hereby acknowledged, and in furtherance of my/our obligations to HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P., a Texas limited Partnership having its principal place of business in Houston. Texas. (hereinafter HPDC), and to its

Limited Partnership having subsidiaries and affiliates, a assigns, the entire right, tit entitled:	gree to assign and transfer le and interest, including the	r and hereby as	sign and	transfer t	o HPDC,	its successo	ors and
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3390 E. Harmony Road
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Earl Calline Colorado 80528

PATENT APPLICATION

Fort Collins, Colorado 80528		RECORD ID:	84347123
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Jun	Zeng		
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Gary J	Dispoto		
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HP Inc.
3390 E. Harmony Road
Mail Stop 35
Fort Collins, Colorado 80528

Rev 8/2014 (Assignment)

PATENT APPLICATION

RECORD ID:	84347123
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ASSIGNMENT OF PATENT APPLICATION

I/We, the undersigned (each), for good and valuable consideration, the receipt of which is hereby acknowledged, and in furtherance of my/our obligations to HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P., a Texas

subsidiaries ar	nd affiliates, agree	principal place of but to assign and transfer d interest, including the	and hereby as	sign and	transfer t	o HPDC, i	ts successors an	d
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Fort Collins, Colorado 80528

PATENT APPLICATION

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	ASSIGNMENT OF PA	TENT APPLICATION (co	nt.)
Inventor's Signature		Date	
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Thomas J	Peck		
First/Middle Name	Last Name		
Inventor's Signature		Date	
Douglas A	Sexton		
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Page 2 of 2

PATENT REEL: 046122 FRAME: 0736