505894884 01/31/2020

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT5941585

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
HENRY KEN CHU	01/30/2020
DANIEL YOUNG YOON	01/28/2020
SIDDHARTHA BHAT	01/30/2020
GLENN A WONG	01/31/2020
JOHN WILLIAM PENNINGTON JR.	01/30/2020
RAHUL SHRIKANT PATIL	01/29/2020

RECEIVING PARTY DATA

Name:	HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P.
Street Address:	10300 ENERGY DRIVE
City:	SPRING
State/Country:	TEXAS
Postal Code:	77389

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	29722792

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.

Email: ipa.mail@hp.com

Correspondent Name: HP INC.

Address Line 1: 3390 E. HARMONY ROAD

Address Line 2: MAIL STOP 35

Address Line 4: FORT COLLINS, COLORADO 80528-9544

ATTORNEY DOCKET NUMBER:	85841054
NAME OF SUBMITTER:	INDRA FERNANDO
SIGNATURE:	/Indra Fernando/
DATE SIGNED:	01/31/2020

Total Attachments: 6

PATENT REEL: 051690 FRAME: 0643

505894884



PATENT REEL: 051690 FRAME: 0644 HP Inc. 3390 E. Harmony Road Mail Stop 35 Fort Collins, Colorado 80528

RECORD ID:	85841054
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ASSIGNMENT OF PATENT APPLICATION

I, the undersigned, for good and valuable consideration, the receipt of which is hereby acknowledged, agree to assign and transfer and hereby assign and transfer to HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P., a Texas Limited Partnership having its principal place of business in Spring, Texas, (hereinafter "HPDC"), its successors, and its assigns, my entire right, title, and interest, including all rights of priority, in, to, and under an application for patent entitled (English-language title in parentheses if said application for patent is in another language):

il salu application for paterit is ill ariotrier language).			
COMPUTER			
Filing Date: Application No	o.:		Patent Office: US ;
the subject matter, including any and all inventions, improvements herein "patent" refers to any form of intellectual property protection design rights, and utility model rights) (hereinafter "Inventions"); country or region or under any international agreement for any of patent, any and all applications for patent directly or indirectly clais said Inventions, any and all applications for patent from which a indirectly claims priority or benefit, and any and all continuation apof, divisional applications of, national-phase applications of, region or as a result of said Applications for Patent (hereinafter "Pate of said Applications for Patents.	n including, with any and all e said Invention iming priority to any application oplications of, o onal-phase applications for Pa	nout limitation, inversisting and future is (including, without or benefit of any in for patent for an continuation-in-particulations of, renevalent"); any and all	ention rights, utility patent rights, applications for patent of any ut limitation, said application for application for patent for any of y of said Inventions directly or applications (hereinafter CIPs) wals of, and substitutes for any patents which may be granted
I HEREBY represent that I convey my full rights in all coun entire right, title, and interest herein assigned and transferred, and conflict herewith;			
AND I HEREBY authorize HPDC, its successors, its ass Applications for Patent in its name or in my name in any count authorize HPDC, its successors, its assigns, its nominees, and number, and patent office of said application for patent, now ident them;	ry or region o d its legal rep	r under any intern resentatives to ins	ational agreement, and further sert the filing date, application
AND I HEREBY authorize and request the officials of all could duty it is to issue patents, to issue to HPDC, its successors, or its Patents, in accordance with the terms of this assignment and trans	s assigns, as a		
AND I HEREBY covenant and agree that I will, each time a resuch papers as may be necessary or desirable to perfect the the HPDC, its successors, or its assigns; communicate to HPDC, its sall known facts respecting said Inventions, Applications for Patern and sign all lawful papers (including, without limitation, division applications) relating to said Inventions, Applications for Patent, generally to do everything possible to aid HPDC, its successors, maintain, and enforce, for its or their own benefit, proper intellectuand Patents, provided the expenses which may be incurred by me its successors, its assigns, its nominees, or its legal representative	itle in said Involuccessors, its t, and Patents and application and Patents; its assigns, its al property proe in lending sue	rentions, Applications, its nomine assigns, its nomine testify in any legans, continuation a and make all right nominees, and its tection for said Investion for said Investigations.	ons for Patent, and Patents, to ees, or its legal representatives, al or administrative proceedings pplications, CIPs, and reissue ful oaths and declarations and legal representatives to obtain, entions, Applications for Patent,
IN WITNESS WHEREOF, I hereunto set my hand and seal:			
franço da	_30	Jan	2020
Ínventor's Signature	Day	Month	Year
Henry Ken Chu			
Given (First and Middle) Name(s) Family Name			

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

RECORD	ın:	85841054
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ASSIGNMENT OF PATENT APPLICATION

I, the undersigned, for good and valuable consideration, the receipt of which is hereby acknowledged, agree to assign and transfer and hereby assign and transfer to HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P., a Texas Limited Partnership having its principal place of business in Spring, Texas, (hereinafter "HPDC"), its successors, and its assigns, my entire right, title, and interest, including all rights of priority, in, to, and under an application for patent entitled (English-language title in parentheses if said application for patent is in another language):

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Filing Date: Application	No.:		Patent Office: US
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AND I HEREBY covenant and agree that I will, each time a such papers as may be necessary or desirable to perfect the HPDC, its successors, or its assigns; communicate to HPDC, its all known facts respecting said Inventions, Applications for Pater and sign all lawful papers (including, without limitation, divis applications) relating to said Inventions, Applications for Pater generally to do everything possible to aid HPDC, its successors maintain, and enforce, for its or their own benefit, proper intellect and Patents, provided the expenses which may be incurred by not successors, its assigns, its nominees, or its legal representations.	title in said Investigation to successors, its act, and Patents; ional application t, and Patents; a, its assigns, its real property protein in lending successions.	entions, Applications for assigns, its nominees, or testify in any legal or ad s, continuation applicati and make all rightful oat nominees, and its legal rection for said Inventions	Patent, and Patents, to its legal representatives iministrative proceedings ions, CIPs, and reissue hs and declarations and epresentatives to obtain and Applications for Patent
IN WITNESS WHEREOF, I hereunto set my hand and seal:			_
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Inventor Signature	Day	Month	Year
Daniel Young Yoon			
Given (First and Middle) Name(s) Family Name			

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

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Filing Date:	Application No.:			Patent Office: US ;
the subject matter, including any an nerein "patent" refers to any form of design rights, and utility model rig country or region or under any inter- patent, any and all applications for said Inventions, any and all applic ndirectly claims priority or benefit, a of, divisional applications of, nation application for patent for any of said on or as a result of said Application of said Applications for Patent or sa	intellectual property protection in hts) (hereinafter "Inventions"); a mational agreement for any of sa patent directly or indirectly claim ations for patent from which an and any and all continuation app nal-phase applications of, region d Inventions) (hereinafter "Applicas for Patent (hereinafter "Patent	scluding, withou ny and all exist aid Inventions (ing priority to o y application for ications of, cor al-phase applications for Pate	at limitation, inversiting and future including, without benefit of any a patent for any attinuation-in-part cations of, renewent"); any and all	ntion rights, utility patent rights, applications for patent of any it limitation, said application for application for patent for any of of said Inventions directly or applications (hereinafter CIPs) rals of, and substitutes for any patents which may be granted
I HEREBY represent that I co entire right, title, and interest herein conflict herewith;	nvey my full rights in all countri assigned and transferred, and t			
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IN WITNESS WHEREOF, I HE	reuhto set my hand and seal:	<u>130</u>		2020
nventor's Signature 🔍		Day	Month	Year
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HP Inc. 3390 E, Harmony Road Mail Stop 35 Fort Collins, Colorado 80528

ASSIGNMENT OF PATENT APPLICATION

I, the undersigned, for good and valuable consideration, the receipt of which is hereby acknowledged, agree to assign and

transfer and hereby assign and tran having its principal place of busines and interest, including all rights of pi if said application for patent is in and	s in Spring, Texas, (hereinafter iority, in, to, and under an appl	r "HPDC"), its st	accessors, and its as	signs, my entire right, title,
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Filing Date:	Application No			Patent Office: US
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IN THE SS WHEREOF, I he	eunto set my hand and seal:	31	TAU	2020
internation of the		Day	Month	Year
Glenn A	Wong			
Given (First and Middle) Name(s)	Family Name			

to.

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

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IN WITNESS WHEREOF, I here	•		,	
John W Penney (Inventor's Signature	oup.	30	JANUARY	2020
	-	Day	Month (Year
	Pennington Jr.			
Given (First and Middle) Name(s)	Family Name			

HP Inc. 3390 E. Harmony Read Mail Stop 35 Fort Collins, Colorado 80528 PATENT APPLICATION

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the subject matter, including any and all inventions, improvements, and discoveries, set forth in said application for patent (as used terms) patent refers to any form of intellectual property protection including without limitation, invention rights, usiny patent rights design rights, and utility model rights) (hereinafter 'inventions'), any and all existing and future applications for patent of any country or region or under any international agreement for any of said inventions (including without limitation, said application for patent any and all applications for patent directly or indirectly claiming priority to or benefit of any application for patent for any of said inventions, any and all applications for patent from which any application to patent for any of said inventions fractly or indirectly claims priority or benefit, and any and all continuation applications of continuation-in-part applications (hereinafter CIPs) of, divisional applications of national-phase applications of regional-phase applications of remewals of, and substitutes for any application for patent for any of said inventions) (hereinafter "Applications for Patent"), any and all patents which may be granted in or as a result of said Applications for Patent (hereinafter "Patents"), and any and all reissues, reexaminations, and extensions of said Applications for Patent (hereinafter "Patents"), and any and all reissues.

I HEREBY represent that I convey my full rights in all countries and regions and under all international agreements to the ordine right, titls, and interest herein assigned and transferred, and that I have not executed and will not execute any agreement in conflict herewith.

AND I HEREBY authorize HPDC, its successors, its assigns, its nominees, and its legal representatives to file said Applications for Patent in its name or in my name in any country or region or under any international agreement, and further sufferings HPDC, its successors, its assigns, its nominees, and its legal representatives to insert the filing date, application for patent office of said application for patent, now identified by the Record ID and little set furth above, when known to them:

ANO I HEREBY subsorize and request the officials of all countries and regions and under all international agreements whose duty it is to issue patents, to issue to HPDC, its successors, or its assigns, as assignee of my entire right, title, and interest, said Patents, in accordance with the terms of this assignment and transfer.

AND LIFERESY coverient and agree that I will, each time a request is made, and without undue delay, execute and deliver all such papers as may be necessary or destrable to perfect the title in said inventions. Applications for Patent, and Patents, to HPDC, its successors, to assigns its nominees, or its legal impresentatives all known tools respecting said inventions. Applications for Patent, and Patents, bettly in any legal or administrative proceedings and sign all leavest papers (including, without imitation divisional applications continuation applications CIPs, and ressue applications) relating to said inventions. Applications for Patent, and Patents, and make all rightsu caths and declarations and generally to do everything possible to aid HPDC, its successors, its assigns, its nominees, and its legal representatives to obtain maintain, and enforce, for its or their own benefit, proper intellectual property protection for said inventions. Applications for Patent and Patents, provided the expenses which may be incurred by me in landing such cooperation and assistance are paid by HPDC its successors, its assigns, its nominees, in its legal representatives.

IN WITNESS WHEREON	^p . I hereunto set	my hand and seal		
4-2			29 JAN	2020
Inventor's Signature		***************************************	Day Month	Year
Rahul Shrikant Goen (Fest and Middle) Name	Patil			

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