PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT5877872

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
YING ZHANG	11/20/2015
JEONGKEUN LEE	11/20/2015
PUNEET SHARMA	11/20/2015
JOON-MYUNG KANG	11/20/2015

RECEIVING PARTY DATA

Name:	HEWLETT PACKARD ENTERPRISE DEVELOPMENT LP		
Street Address:	11445 COMPAQ CENTER DRIVE WEST		
City:	HOUSTON		
State/Country:	TEXAS		
Postal Code:	77070		

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16721274

CORRESPONDENCE DATA

Fax Number:

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.

970-898-7472 Phone:

Email: hpe.ip.mail@hpe.com

Correspondent Name: HEWLETT PACKARD ENTERPRISE

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Address Line 2: MAIL STOP 79

Address Line 4: FORT COLLINS, COLORADO 80528

ATTORNEY DOCKET NUMBER:	90831553
NAME OF SUBMITTER:	DEBORAH HIGHAM
SIGNATURE:	/Deborah Higham/
DATE SIGNED:	12/19/2019

Total Attachments: 6

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> **PATENT** REEL: 051336 FRAME: 0481 505830939

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PATENT REEL: 051336 FRAME: 0482

Rev 06/15

PATENT	APPLICA	TION
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RECORD ID:	84264143
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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 Enterprise Development LP, a Texas Limited Partnership having its principal place of business in Houston, Texas, (hereinafter HPED), and to its subsidiaries and affiliates, agree to assign and transfer and hereby assign and transfer to HPED, its successors and assigns, the entire right, title and interest, including the right of priority, in, to and under an application for Patent entitled:

Fillng Date:	~~~~~	Application No.:
divisionals, and renewal	s of and substitutes for s	in, and any and all continuations, continuations-in-part (C-I-P's), pplication for said Patent, and any and all other Patent of any afore; and any reissues, or reexaminations, or extensions of said
by HPED, its successors Palent respectively may	s, assigns, nominees or le	in my/our name for Patent in any country, to be held and enjoyed presentatives, to the full end of the term or terms for which said ad, as fully and entirely as the same would have been held and een made;
executed and will not exitime a request is made, a perfect the title to said in nominees or legal repressaid invention(s) or impapers, to execute all direction and legal representatives improvement(s) in any cooperation and assistantimes.	ecute any agreement in co and without undue delay, e- vention(s) or improvement centatives, and I/we agree- ovement(s), said application isclaimers and divisionals ations, and generally to di- to obtain and enforce, for and all countries provide ce are paid by HPED;	convey the entire interest herein assigned, and that I/we have not herewith, and I/we further covenant and agree that I/we will, each and deliver all such papers as may be necessary or desirable to aid application and said Patent, to HPED, its successors, assigns inmunicate to HPED, or to its nominee, all known facts respecting said Patent, to testify in any legal proceedings, to sign all lawfur invations. C-I-P's, reissue and foreign applications, to make all the processors, assigns, nominees their own benefit, proper patent protection for said invention(s) or expenses which may be incurred by me/us in lending such
applications as aforesald	l, to issue to HPED, as as nent(s) which may be iss	of any country or countries whose duty it is to issue patents or a of the entire right, title and interest, any and all Patent for said and granted on or as a result of the application aforesaid, in
		record to insert the filing date and application number of said d title set forth above, as soon as the same shall have been made
IN WITNESS WHEREO	F, I/we hereunto set my/our	s) and seal(s):
l	1	NOV. 20, 2015
nventor's Signature		Date
Ying	Zhang	
First/Middle Name	Last Name	
nventor's Signature		Date
Jeongkeun	Lee	
First/Middle Name	Last Name	

Page 1 of 2

PATENT APPLICATION

rort Collins, Colorado 80528		RECORD ID:	84264143
ASSI	GNMENT OF PATENT A	PPLICATION (cont.)	r
Inventor's Signature		Date	
Puneet SI	narma		
First/Middle Name La	st Name		
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Inventor's Signature	gs/~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Date	
Joon-Myung Ka	ang		
	st Name		
nventor's Signature		Date	
First/Middle Name Las	st Name	·	
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oventor's Signature		Date	
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irst/Middle Name Lasi	t Name		
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Page 2 of 2

٤	ewlett Packard Enterprise
	404 E. Harmony Road
ă,	lail Stop 79
۶	ort Collins, Colorado 80528

PATENT APPLICATION

84264143

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 Enterprise Development LP, a Texas Limited Partnership having its principal place of business in Houston, Texas, (hereinafter HPED), and to its subsidiaries and affiliates, agree to assign and transfer and hereby assign and transfer to HPED, its successors and assigns, the entire right, title and interest, including the right of priority, in, to and under an application for Patent entitled;

DETERMINING VIOLATION OF A NETWORK INVARIANT Filing Date: Application No.: and the invention(s) and improvement(s) set forth therein, and any and all continuations, continuations-in-part (C-I-P's), divisionals, and renewals of and substitutes for said application for said Patent, and any and all other Patent of any countries thereto which may be granted thereon or therefore; and any reissues, or reexaminations, or extensions of said Patent. I/we additionally authorize HPED to file applications in my/our name for Patent in any country, to be held and enjoyed by HPED, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by me/us had this assignment, and transfer not been made: AND I/we hereby covenant that I/we have full right to convey the entire interest herein assigned, and that I/we have not executed and will not execute any agreement in conflict herewith, and I/we further coverant and agree that I/we will, each time a request is made, and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said invention(s) or improvement(s), said application and said Patent, to HPED, its successors, assigns, nominees or legal representatives, and I/we agree to communicate to HPED, 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 paths and declarations, and generally to do everything possible to aid HPED, 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 HPED; AND tiwe hereby authorize and request the official of any country of countries whose duty it is to issue patents on applications as aforesaid, to issue to HPED, 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 afcresaid, 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 WHEREOF, I/we hereunto set my/our hand(s) and seal(s): Inventor's Signature Zhang Ying Last Name First/Middle Name 120/15 Inventor's Signature

Page 1 of 2

Lee

Last Name

Jeongkeun

Rev 06/15

First/Middle Name

PATENT APPLICATION

Fort Collins, Colorado 8052	28	RECORD ID:	84264143
	ASSIGNMENT OF PA	ATENT APPLICATION (cont	<i>S</i>)
Inventor's Signature		Date	
Puneet	Sharma		
First/Middle Name	Last Name		
Inventor's Signature		Date	***************************************
Joon-Myung	Kang		
First/Middle Name	Last Name	·	
Inventor's Signature		Date	
First/Middle Name	Last Name		
Inventor's Signature		Date	
First/Middle Name	Last Name		
Inventor's Signature		Date	
First/Middle Name	Last Name		
Inventor's Signature		Date	
First/Middle Name	Last Name		

Page 2 of 2

Rev 98/16

PATENT APPLICATION

RECORD ID:	84264143
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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 Enterprise Development LP, a Texas Limited Partnership having its principal place of business in Houston, Texas, (hereinafter HPED), and to its subsidiaries and affiliates, agree to assign and transfer and hereby assign and transfer to HPED, its successors and assigns, the entire right, title and interest, including the right of principle in to and under an application for Patent entitled:

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Filling Date:		Application No.:
and the invention(s) and divisionals, and renewals	of and substitutes for said	erein, and any and all continuations, continuations-in-part (C-I-P's), application for said Patent, and any and all other Patent of any perefore; and any reissues, or reexaminations, or extensions of said
by HPED, its successors, Patent respectively may I	assigns, nominees or lega	ns in my/our name for Patent in any country, to be held and enjoyed representatives, to the full end of the term or terms for which said inded, as fully and entirely as the same would have been held and at been made;
executed and will not exe time a request is made, a perfect the title to said inv nominees or legal repress said invention(s) or impro papers, to execute all di- nightful oaths and declars and legal representatives	cute any agreement in confi nd without undus delay, exe rention(s) or improvement(s) entatives, and t/we agree to vement(s), said application scialmers and divisionals, of tions, and generally to do to obtain and enforce, for its and all countries provided	t to convey the entire interest herein assigned, and that I/we have not ict herewith, and I/we further covenant and agree that I/we will, each cute and deliver all such papers as may be necessary or desirable to, said application and said Patent, to HPED, its successors, assigns, communicate to HPED, or to its nominee, all known facts respecting and said Patent, to testify in any legal proceedings, to sign all lawful continuations, C-I-P's, reissue and foreign applications, to make all everything possible to aid HPED, its successors, assigns, nominees or their own benefit, proper patent protection for said invention(s) or the expenses which may be incurred by me/us in lending such
applications as aforesaid.	to issue to HPED, as assi- lent(s) which may be issue	cial of any country or countries whose duty it is to issue patents on gree of the entire right, title and interest, any and all Patent for said ad and granted on or as a result of the application aforesaid, in
Vwe further authoriz application for Patent, now known to them.	e and direct the attorneys videntified by the Record to	of record to insert the filing date and application number of said and title set forth above, as soon as the same shall have been made
IN WITNESS WHEREOI	, I/we hereunto set my/our ha	nd(s) and seal(s):
inventor's Signature	·····	Date
Ying	Zhang	
First/Middle Name	Last Name	
Inventor's Signature		Date
Jeongkeun	Lee	
First/Middle Name	Last Name	

Page 1 of 2

PATENT REEL: 051336 FRAME: 0487

PATENT APPLICATION

Fort Collins, Colorado 80528		RECORD ID:	84264143
	ASSIGNMENT OF PA	TENT APPLICATION (con	t.)
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oventor's Signature	······································	Date	· · · · · · · · · · · · · · · · · · ·
uneet	Sharma		
First/Micidle Name	Läst Name	,	
nventor's Signature			
loon-Myung	Kang		
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inventor's Signature		Date	
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Page 2 of 2

Rev 96/15

RECORDED: 12/19/2019