# 504249955 03/01/2017

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4296633

NAME OF SUBMITTER: KATHY HUNGSBERG							
CONVEYING PARTY DATA       Name       Execution Date         YOOCHARN JEON       02/23/2015         RECEIVING PARTY DATA       02/23/2015         State/Country:       Hewlett-Packard Development Company, L.P.         Street Address:       11445 Compa Center Drive West         City:       Houston         State/Country:       TEXAS         Postal Code:       77070         PROPERTY NUMBERS Total: 1       Property Type         Number:       15500052         CORRESPONDENCE DATA       Fax Number:         Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.         Phone:       (970) 898-7444         Email:       hpe.ip.mail@hpe.com         Correspondent Name:       HEWLET PACKARD ENTERPRISE         A	SUBMISSION TYPE:		NEW ASSIGNMENT	NEW ASSIGNMENT			
Name     Execution Date       YOOCHARN JEON     02/23/2015       RECEIVING PARTY DATA     02/23/2015       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:     15500052   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. Phone: (970) 898-7444 Email: hpe.ip.mail@npe.com   Correspondent Name: HEWLETT PACKARD ENTERPRISE Address Line 1: 3404 E. HARMONY ROAD MS 79 Address Line 4: FORT COLLINS, COLORADO MS 79 Address Line 4: FORT COLLINS, COLORADO MS 79 Address Line 4: FORT COLLINS, COLORADO 80528 ATTORNEY DOCKET NUMBER: 90347080 NAME OF SUBMITTER: KATHY HUNGSBERG SIGNATURE: (Xathy Hungsberg/ DATE SIGNED: 03/01/2017 Total Attachments: 1	NATURE OF CONVEYAN	ICE:	ASSIGNMENT	ASSIGNMENT			
YOOCHARN JEON       02/23/2015         RECEIVING PARTY DATA         Name:       Hewlett-Packard Development Company, L.P.         Street Address:       11445 Compaq Center Drive West         City:       Houston         Street Address:         11445 Compaq Center Drive West         City:       Houston         Street Address:         11445 Compaq Center Drive West         City:       Houston         Street Address:         Ptoperty Type Houston         Property Type Number         Application Number:       15500052         CORRESPONDENCE DATA         Fax Number:         CORRESPONDENCE DATA         Fax Number:         CORRESPONDENCE DATA         Fax Number:         Origin address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent using a fax number, if provided; EACHARD ENTERPRISE         Address Line 1:       hpe.ip.mail@hpe.com         Correspondent Name:         HEWLETT PACKARD ENTERPRISE         Address Line 1:       90347080	CONVEYING PARTY DA	ATA	·				
Letter L			Name		Execution Date		
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Total Attachments: 1	SIGNATURE:		/Kathy Hungsberg/	/Kathy Hungsberg/			
	DATE SIGNED:		03/01/2017	03/01/2017			
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HEWLETT-PACKARD COMPANY		PATENT APPLICATION
Intellectual Property Administrator		
3404 E. Harmony Road		
Mail Stop 35	RECORD ID:	84111569
Fort Collins, Colorado 80528		

#### **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 entitled:

#### DETERMINING A STATE OF MEMRISTORS IN A CROSSBAR ARRAY

Filing Date: 01/28/2017 Application No.: 15/500052

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 HPDC to file applications in my/our name for Patent in any country, to be held and enjoyed by HPDC, 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 covenant 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 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 l/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 WHEREOF, I/we hereunto set my/our hand(s) and seal(s):

_ 2Th	ly l	Feb. 23. 2015			
Inventor's Signature			Date		
Yoocharn	Jeon				
First/Middle Name	Last Name	<u> </u>			
Inventor's Signature			Date		
First/Middle Name	Last Name		_		
Rev 8/2014 (Assignment)		Page 1 of 1			

RECORDED: 03/01/2017

### PATENT REEL: 041414 FRAME: 0855