# 503415846 07/30/2015 PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:		NEW ASSIGNMENT				
NATURE OF CONVEYAN	URE OF CONVEYANCE: ASSIGNMENT					
CONVEYING PARTY DA	ATA					
		Name	Execution Date			
SHENG LI			02/07/2013			
NORMAN PAUL JOUPPI	02/07/2013					
NAVEEN MURALIMANO	HAR		07/29/2015			
RECEIVING PARTY DA	ГА					
Name:	Hewlett-Packard Development Company, L.P.					
Street Address:	11445 Co	mpaq Center Drive West				
City:	Houston	· ·				
State/Country:	TEXAS					
Postal Code:	77070	7070				
PROPERTY NUMBERS	Total: 1					
Property Type		Number				
Application Number:	14	764673				
CONNESPONDENCE D						
Fax Number:						
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Correspondence will be using a fax number, if p Phone: Email: Correspondent Name:	p <b>rovided; i</b> (97 hp HE	<b>f that is unsuccessful, it will be sen</b> 70) 898-7444 e.ip.mail@hp.com EWLETT-PACKARD COMPANY				
Correspondence will be using a fax number, if p Phone: Email: Correspondent Name: Address Line 1:	<b>provided; i</b> (97 hp HE 34	<b>f that is unsuccessful, it will be sen</b> 70) 898-7444 e.ip.mail@hp.com EWLETT-PACKARD COMPANY 04 E. HARMONY ROAD MS 79				
Correspondence will be using a fax number, if p Phone: Email: Correspondent Name:	<b>provided; i</b> (97 hp HE 34	<b>f that is unsuccessful, it will be sen</b> 70) 898-7444 e.ip.mail@hp.com EWLETT-PACKARD COMPANY				
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/Kathy L. Hungsberg/

07/30/2015

SIGNATURE:

DATE SIGNED:

**Total Attachments: 2** 

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HEWLETT-PACKARD COMPANY Intellectual Property Administrator 3404 E. Harmony Road Mail Stop 35 Fort Collins, Colorado 80528

RECORD ID:

PATENT APPLICATION

83105750

### ASSIGNMENT OF PATENT APPLICATION

I/We, the undersigned (each) have agreed and hereby agree, that 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, to assign and transfer to HPDC, its successors and entitled:

## ADAPTIVE-GRANULARITY ROW BUFFER CACHE

#### Filing Date: 07/30/2015

Application No.: 14/764673 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

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 l/we hereby covenant that l/we have full right to convey the entire interest herein assigned, and that l/we have not executed and will not execute any agreement in conflict herewith, and l/we further covenant and agree that l/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, said invention(s) or improvement(s), said application and said Patent, to HPDC, its successors, assigns, said invention(s) or improvement(s), said application, 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 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, Uwe hereur	to set mulaur be	nale	a a a d ( a ).			
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Inventor's Signature			Date			
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Sheng LI						
Inventor's Typed Name						
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Inventor's Signature	pp			<u> </u>	113	
	· · /	· .	Date			******
Norman Paul Jouppi						
Inventor's Typed Name						
Rev 1/ 2013 (Assignment)	Page 1 c	of 1				
					PATENT	

REEL: 036216 FRAME: 0752

HEWLETT-PACKARD COMPAN 3404 E. Harmony Road Mail Stop 79	Y			PATENT AP	PLICATION
Fort Collins, Colorado 80528		RECO	RD ID:	84301132	
(//	ASSIGNMENT OF F	PATENT APPLIC	ATION (cor	nt.)	
Mance			7/29	)/2015	
Inventor's Signature			Date		
Naveen	Muralimanohar				
First/Middle Name	Last Name				
Inventor's Signature			Date		
First/Middle Name	Last Name				
Inventor's Signature		i	Date		
First/Middle Name	Last Name				
Inventor's Signature			Date		
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Rev 8/2014 (Assignment)		Page 2 of 2			

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