504156764 12/28/2016

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4203438

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT	
NATURE OF CONVEYANCE:	Corrective Assignment to correct the FIFTH ASSIGNOR'S NAME previously recorded on Reel 039248 Frame 0814. Assignor(s) hereby confirms the ZHUO LI.	

CONVEYING PARTY DATA

Name	Execution Date
WEN HAO LIU	07/20/2016
JHIH-RONG GAO	07/20/2016
MEHMET YILDIZ	07/20/2016
CHARLES ALPERT	07/20/2016
ZHUO LI	07/20/2016

RECEIVING PARTY DATA

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Street Address:	2655 SEELY AVENUE	
City:	SAN JOSE	
State/Country:	CALIFORNIA	
Postal Code:	95134	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15219008

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NAME OF SUBMITTER:	ERIC L. SOPHIR
SIGNATURE:	/ERIC L. SOPHIR/
DATE SIGNED:	12/28/2016

PATENT 504156764 REEL: 041209 FRAME: 0684

Total Attachments: 8 source=Corrected_Notice_Of_Recordation#page1.tif source=Corrected_Notice_Of_Recordation#page2.tif source=Corrected_Notice_Of_Recordation#page3.tif source=Corrected_Notice_Of_Recordation#page4.tif source=Corrected_Notice_Of_Recordation#page5.tif source=Corrected_Notice_Of_Recordation#page6.tif source=Corrected_Notice_Of_Recordation#page7.tif source=Corrected_Notice_Of_Recordation#page8.tif

PATENT REEL: 041209 FRAME: 0685

503930202 07/25/2016

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3976856

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
WEN HAO LIU	07/20/2016
JHIH-RONG GAO	07/20/2016
MEHMET YILDIZ	07/20/2016
CHARLES ALPERT	07/20/2016
ZHOU-LI ZHUO LI	07/20/2016

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PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15219008

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DATE SIGNED:	07/25/2016
Total Attachments: 2	

PATENT

REEL: 041209 FRAME: 0686

Atty, Ref. No.: 10000069-000036

ASSIGNMENT

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor hereby sells, assigns, transfers to CADENCE DESIGN SYSTEMS, INC., a Delaware corporation having a principal place of business at 2655 SEELY AVENUE, SAN JOSE, CALIFORNIA 95134 ("ASSIGNEE"), and its successors, assigns, and legal representatives, all rights, title and interest in and to his/her invention relating to:

TITLE; SYSTEMS AND METHODS FOR CONGESTION AND ROUTABILITY AWARE DETAILED PLACEMENT

in any form or embodiment thereof, in the United States and all other countries, including applications for patents in all countries throughout the world, as set forth in his/her United States Patent Application (check one):

\boxtimes	executed concurrently herewith,	
	executed on,	.,
	Serial No, filed on,	
	PCT International Application No.:, filed on	

including any and all applications claiming priority to said applications, and to any provisional from which priority is claimed, divisions, continuations, renewal, substitute or reissue thereof and to any and all Letters Patent of the United States and all other countries, including any and all utility models, and design registrations, which may issue on any such application or for said invention, including any and all reissues or extensions thereof, to be held and enjoyed by said ASSIGNEE, its successors, legal representatives and assigns to the full end of the term or terms for which any and all such Letters patent may be granted as fully and entirely as would have been held and enjoyed by the undersigned had this Assignment not been made;

Each of the undersigned hereby authorizes and requests the issuing authority to issue any and all such Letters patent to said ASSIGNEE, its successors or assigns in accordance herewith;

Each of the undersigned warrants and covenants that he has the full and unencumbered right to sell, assign, and transfer the interests herein sold, assigned, and transferred and that he has not executed and will not execute any document or instrument in conflict herewith;

Each of the undersigned further covenants and agrees he will communicate to said ASSIGNEE, its successors, legal representatives or assigns all information known to him relating to said invention or patent application and that, without further remuneration, he will execute and deliver any papers, make all rightful oaths, testify in any legal proceedings and perform all other lawful acts deemed necessary or desirable by said ASSIGNEE, its successors, legal representatives or assigns to perfect title to said invention, to said application including divisions and continuations thereof and to any and all Letters Patent which may be granted therefor or thereon, including reissues or extensions, in said ASSIGNEE, its successors, or assigns or to assist said ASSIGNEE, its successors, legal representatives or assigns in obtaining, reissuing or enforcing Letters Patent of the United States or other countries for said invention; and

Each of the undersigned hereby grants the attorneys associated with Customer Number 132060 the power to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment, including the power to insert on this assignment the application number and filing date of said application when known.

Full Name of First Inventor: (given name, middle initial, family name)	Wen Hao LIU	
Inventor's Wen Hao Liu	Execution Date 09 20/2016	
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Inventor's Jh-M CC	Execution Date 7. 20. 2016	
Full Name of Third Inventor: (given name, middle initial, family name)	Mehmet YILDIZ	
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Full Name of Fourth Inventor:	Charles ALPERT	
(given name, middle initial, family name) Inventor's Signature	Execution Date 7/20/20/6	
Full Name of Fifth Inventor:	Zhuo LI	
(given name, middle initial, family name)/ Inventor's Signature	Execution Date 07/20/20/6	

PATENT REEL: 041209 FRAME: 0688

RECORDED: 12/28/2016