505378055 03/15/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

1 V1.1 EPAS ID: PAT5424848

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
THEJASVI MAGUDILU VIJAVARAJ	10/01/2018
SUKALPA BISWAS	10/15/2018
LAKSHMI NARASIMHA MURTHY NUKALA	09/28/2018
GREGORY S. MATHEWS	09/28/2018

RECEIVING PARTY DATA

Name:	APPLE INC.
Street Address:	ONE APPLE PARK WAY
City:	CUPERTINO
State/Country:	CALIFORNIA
Postal Code:	95014

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16355193

CORRESPONDENCE DATA

Fax Number: (512)853-8801

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: 512 853 8800

Email: dbeasley@intprop.com

Correspondent Name: MEYERTONS, HOOD, KIVLIN, KOWERT & GOETZEL, P.C.

Address Line 1: P.O. BOX 398

Address Line 4: AUSTIN, TEXAS 78767-0398

ATTORNEY DOCKET NUMBER:	1888-34701
NAME OF SUBMITTER:	DEAN M. MUNYON
SIGNATURE:	/Dean M. Munyon/
DATE SIGNED:	03/15/2019

Total Attachments: 6

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PATENT 505378055 REEL: 048615 FRAME: 0005

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> PATENT REEL: 048615 FRAME: 0006

ASSIGNMENT

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency and adequacy of which are hereby acknowledged, the undersigned does hereby:

SELL, ASSIGN AND TRANSFER to Apple Inc. (the "Assignee"), a corporation organized and existing under and by virtue of the laws of the State of California, and having its principal place of business at One Apple Park Way, Cupertino, CA 95014, the entire right, title and interest for the United States and all foreign countries, in and to any and all improvements which are disclosed in the application for United States Letters Patent, which has been executed by the undersigned concurrently herewith, and is entitled MEMORY ACCESS QUALITY-OF-SERVICE REALLOCATION, such application and all divisional, continuing, substitute, renewal, reissue and all other applications for patent which have been or shall be filed in the United States and all foreign countries on any of such improvements; all original and reissued patents which have been or shall be issued in the United States and all foreign countries on such improvements; and specifically including the right to file foreign applications under the provisions of any convention or treaty and claim priority based on such application in the United States;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such improvements to the Assignee;

WARRANT AND COVENANT that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or will be made to others by the undersigned, and that the full right to convey the same as herein expressed is possessed by the undersigned;

COVENANT that, when requested and at the expense of the Assignee, to carry out in good faith the intent and purpose of this assignment, the undersigned will execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all such improvements; execute all rightful oaths, declarations, assignments, powers of attorney and other papers; communicate to the Assignee all facts known to the undersigned relating to such improvements and the history thereof; and generally do everything possible which the Assignee shall consider desirable for securing, maintaining and enforcing proper patent protection for such improvements and for vesting title to such improvements in the Assignee;

1

PATENT REEL: 048615 FRAME: 0007 (Signature) Magudilu Vijavaraj

(Signature) Date: 10/01/2018

(Signature) Date: Date

Gregory S. Mathews

COVENANT AND AGREE that the above is and will be binding on the heirs, assigns, representatives and successors of the undersigned and extend to the successors, assigns and

nominees of the Assigns.

Name:

Customer No. 81310
Dean M. Munyon
Meyertons, Hood, Kivlin, Kowert & Goetzel, P.C.
P.O. Box 398
Austin, TX 78767-0398

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AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such improvements to the Assignee;

WARRANT AND COVENANT that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or will be made to others by the undersigned, and that the full right to convey the same as herein expressed is possessed by the undersigned;

COVENANT that, when requested and at the expense of the Assignee, to carry out in good faith the intent and purpose of this assignment, the undersigned will execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all such improvements; execute all rightful oaths, declarations, assignments, powers of attorney and other papers; communicate to the Assignee all facts known to the undersigned relating to such improvements and the history thereof; and generally do everything possible which the Assignee shall consider desirable for securing, maintaining and enforcing proper patent protection for such improvements and for vesting title to such improvements in the Assignee;

COVENANT AND AGREE that the above is and will be binding on the heirs, assigns, representatives and successors of the undersigned and extend to the successors, assigns and nominees of the Assigns.

(Signature)_		Date:
Name:	Thejasvi Magudilu Vijavaraj	
(Signature)_	Soldy him	Date: 10/15/18
Name:	Sukalpa Biswas	
	Tolohari Namainka Maraka Natak	Date:
Name:	Lakshmi Narasimha Murthy Nukala	
(Signature)		Date:
Name:	Gregory S. Mathews	

Customer No. 81310
Dean M. Munyon
Meyertons, Hood, Kivlin, Kowert & Goetzel, P.C.
P.O. Box 398
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ŧ,

PATENT REEL: 048615 FRAME: 0011 COVENANT AND AGREE that the above is and will be binding on the heirs, assigns, representatives and successors of the undersigned and extend to the successors, assigns and nominees of the Assigns.

(Signature)_		Date:
Name:	Thejasvi Magudilu Vijavaraj	
(Signature) _ Name:	Sukalpa Biswas	Date:
	N W Mudby Lakshmi Narasimha Murthy Nukala	Date: 09/28/2018
(Signature) _ Name:	Ciregory S. Mathews	Date:

Customer No. 81310

Dean M. Munyon Meyertons, Hood, Kivlin, Kowert & Goetzel, P.C. P.O. Box 398 Austin, TX 78767-0398