#### 505763274 11/07/2019

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5810090

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
AMIT K. VYAS	10/18/2019
ABHINAV PATHAK	10/28/2019
ANTHONY R. NEWNAM	10/02/2019
ANSHUL DAWRA	10/01/2019
VINCENT B. YEH	10/16/2019
STEVE BRASHEAR	10/01/2019
ANDREAS C. BERGEN	11/06/2019
YUE LI	10/01/2019
ROHIT MUNDRA	10/17/2019
RITIKA KALIA	10/29/2019
ANCA A. CHANDRA	10/03/2019
SANKET BEDARE	10/01/2019

#### **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:	16671128	

#### **CORRESPONDENCE DATA**

(858)350-6111 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.

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PATENT -

ATTORNEY DOCKET NUMBER:	090911-P42153US2-1151017
NAME OF SUBMITTER:	DANI N. HART
SIGNATURE:	/DANI N. HART/
DATE SIGNED:	11/07/2019

**Total Attachments: 30** 

source=Assignment P42153US2#page1.tif source=Assignment P42153US2#page2.tif source=Assignment P42153US2#page3.tif source=Assignment\_P42153US2#page4.tif source=Assignment\_P42153US2#page5.tif source=Assignment P42153US2#page6.tif source=Assignment P42153US2#page7.tif source=Assignment\_P42153US2#page8.tif source=Assignment P42153US2#page9.tif source=Assignment P42153US2#page10.tif source=Assignment P42153US2#page11.tif source=Assignment\_P42153US2#page12.tif source=Assignment P42153US2#page13.tif source=Assignment P42153US2#page14.tif source=Assignment P42153US2#page15.tif source=Assignment\_P42153US2#page16.tif source=Assignment P42153US2#page17.tif source=Assignment P42153US2#page18.tif source=Assignment P42153US2#page19.tif source=Assignment P42153US2#page20.tif source=Assignment\_P42153US2#page21.tif source=Assignment\_P42153US2#page22.tif source=Assignment P42153US2#page23.tif source=Assignment P42153US2#page24.tif source=Assignment\_P42153US2#page25.tif source=Assignment\_P42153US2#page26.tif source=Assignment P42153US2#page27.tif source=Assignment P42153US2#page28.tif source=Assignment\_P42153US2#page29.tif source=Assignment P42153US2#page30.tif

### ASSIGNMENT

(Patent Application)

JOINT

WHEREAS, Amit K. Vyas, Abhinav Pathak, Anthony R. Newnam, Anshul Dawra, Vincent B. Yeh, Steve Brashear, Andreas C. Bergen, Yue Li, Rohit Mundra, Ritika Kalia, Anca A. Chandra and Sanket Bedare hereinafter referred to as "Assignors," are the inventors of the invention described and set forth in the below-identified application for United States Letters Patent:

Title of Invention:

CLUSTERING TECHNIQUES FOR THIRD PARTY

APPLICATION DATA

Filing Date:

October 31, 2019

Application No.:

16/671,128

WHEREAS, **APPLE INC.**, a corporation of the state of California, located at One Apple Park Way, Cupertino, California 95014, United States of America, hereinafter referred to as "ASSIGNEE," is desirous of acquiring an interest in the invention and application and in any U.S. Letters Patent and Registrations which may be granted on the same;

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indicated.	IN TESTIMONY WHEREOF, Assignors have signed their names on the dates		
Signature:	Amit K. Vyas	Date:	16/18/2019
Signature:	Abhinay Pathak	Date: _	
Signature:	Anthony R. Newnam	Date: _	
Signature:	Anshul Dawra	Date: _	
Signature:	Vincent B. Yeh	Date:	
Signature:	Steve Brashear	Date: _	
Signature:	Andreas C. Bergen	Date: _	
Signature:	Yue Li	_ Date: _	
Signature:	Rohit Mundra	Date: _	

Assignment Attorney Docket No.: 090911-P42153US2-1151017

Page 3 of 3

Signature:	·····	Date:	
	Ritika Kalia		
Signature:		Date:	
	Anca A. Chandra		
Signature:		Date:	
	Sanket Bedare		

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indicated.

Signature:		Date:	
	Amit K. Vyas		
Signature:	DAMI-	Data	10/21/15
mgama.	Abhinav Pathak	Dac.	<u> </u>
Signature:		Date:	
	Anthony R. Newnam		
Signature:		Date:	
	Anshul Dawra		
a.			
Signature:	Vincent B. Yeh	Date:	
Signature:		Date:	**************************************
	Steve Brashear		
Signature:		Date:	
	Andreas C. Bergen	rostore	***************************************
Signature:	Vice F 5	Date:	***************************************
	YueLi		
Signature:	×	Date:	
	Robit Mundra		

Assignment Attorney Docket No.: 090911-P42153US2-1151017 Page 3 of 3

Signature:		Date:	
	Ritika Kalia		
Signature:	Anca A. Chandra	Date:	
Signature:	Santat Badaya	Date:	

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Signature:	Amit K. Vyas	Date:	
Signature:	Abhinav Pathak	Date:	
Signature:	Anthony R. Newnam	Date:	2019/10/02
Signature:	Anshul Dawra	Date:	10/01/2019
Signature:	Vincent B. Yeh	Date:	·
Signature:	Steve Brashear	Date:	10/01/19
Signature:	Andreas C. Bergen	Date:	
Signature:	Yue Li	Date:	
Signature:	Rohit Mundra	Date:	

Assignment Attorney Docket No.: 090911-P42153US2-1151017

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	Ritika Kalia		
Signature:	Anca A. Chandra	Date:	
Signature:		Date:	
orgnature.	Sanket Bedare	Date.	

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Signature:	Vincent B. Yeh	Date:	10/16/2010
Signature:	Steve Brashear	Date:	
Signature:	Andreas C. Bergen	Date:	
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	Sanket Bedare			

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Signature:	Steve Brashear	Date:	
Signature:	Andreas C. Bergen	Date:	Nov 6, 2019
Signature:	Yue Li	Date:	
Signature:	Rohit Mundra	Date:	

Assignment Attorney Docket No.: 090911-P42153US2-1151017

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Signature:	Yue Li Yue Li	Date:	10/01/2019
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Signature:	Yue Li	Date:	
Signature:	Rohit Mundra	Date:	

Assignment Attorney Docket No.: 090911-P42153US2-1151017 Page **3** of **3** 

Signature:		Date:	Oct. 29, 2019
	Ritika Kalia		
Signature:	Anca A. Chandra	Date:	
Signature:	Anca A. Chandra	Date:	
	Sanket Bedare		

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For good and valuable consideration, receipt of which is hereby acknowledged by Assignors, Assignors have assigned, and by these presents do assign to Assignee all right, title and interest in and to the invention and application and to all foreign counterparts (including patent, utility model and industrial designs), and in and to any Letters Patent and Registrations which may hereafter be granted on the same in the United States and all countries throughout the world, and to claim the priority from the application as provided by the Paris Convention. The right, title and interest is to be held and enjoyed by Assignee and Assignee's successors and assigns as fully and exclusively as it would have been held and enjoyed by Assignors had this Assignment not been made, for the full term of any Letters Patent and Registrations which may be granted thereon, or of any division, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof.

Assignors further agree that they will, without charge to Assignors, but at Assignee's expense, (a) cooperate with Assignee in the prosecution of U.S. Patent applications and foreign counterparts on the invention and any improvements, (b) execute, verify, acknowledge and deliver all such further papers, including patent applications and instruments of transfer, and (c) perform such other acts as Assignee lawfully may request to obtain or maintain Letters Patent and Registrations for the invention and improvements in any and all countries, and to vest title thereto in Assignee, or Assignee's successors and assigns.

indicated.	IN TESTIMONY WHEREOF, Assignors have	signed their nan	nes on the dates
Signature:	Amit K. Vyas	Date:	
Signature:	Abhinav Pathak	Date:	
Signature:	Anthony R. Newnam	Date:	
Signature:	Anshul Dawra	Date:	
Signature:	Vincent B. Yeh	Date:	
Signature:	Steve Brashear	Date:	
Signature:	Andreas C. Bergen	Date:	
Signature:	Yue Li	Date:	
Signature:	Rohit Mundra	Date:	

Assignment Attorney Docket No.: 090911-P42153US2-1151017 Page 3 of 3

Signature:		Date:	
	Ritika Kalia		
Signature:	Auca Chandra Anca A. Chandra	Date:	10/03/2019
Signature:	Sanket Bedare	Date:	

#### ASSIGNMENT

(Patent Application)

JOINT

WHEREAS, Amit K. Vyas, Abhinav Pathak, Anthony R. Newnam, Anshul Dawra, Vincent B. Yeh, Steve Brashear, Andreas C. Bergen, Yue Li, Rohit Mundra, Ritika Kalia, Anca A. Chandra and Sanket Bedare hereinafter referred to as "Assignors," are the inventors of the invention described and set forth in the below-identified application for United States Letters Patent:

Title of Invention:

CLUSTERING TECHNIQUES FOR THIRD PARTY

APPLICATION DATA

Filing Date:

October 31, 2019

Application No.:

16/671,128

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Signature:	Yue Li	Date:	
Signature:	Rohit Mundra	Date:	

Assignment Attorney Docket No.: 090911-P42153US2-1151017

Page 3 of 3

Signature:	·	Date:	
	Ritika Kalia		
Signature:	Anca A. Chandra	Date:	
Signature:	Sanket Bedare	Date:	10CT 2016

**PATENT REEL: 050966 FRAME: 0543** 

**RECORDED: 11/07/2019**