504199677 01/27/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4246353

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ADELE C. PETERSON	01/04/2017
ROBERTO GARCIA	11/15/2016
SAM H. GHARABALLY	09/22/2016
DAVID ALEX CARTER	09/27/2016
BHASKAR SARMA	01/25/2017
KEVIN LINDEMAN	11/03/2016
KEITH KOWALCZYKOWSKI	11/10/2016
JUSTIN WOOD	10/26/2016
EUGENE BISTOLAS	09/19/2016
CRAIG FEDERIGHI	10/14/2016

RECEIVING PARTY DATA

Name:	APPLE INC.
Street Address:	1 INFINITE LOOP
City:	CUPERTINO
State/Country:	CALIFORNIA
Postal Code:	95014

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15275136

CORRESPONDENCE DATA

Fax Number: (408)720-8383

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: 408-720-8300

Email: juanita briscoe@bstz.com JAMES C. SCHELLER Correspondent Name: Address Line 1: 1279 OAKMEAD PKWY

Address Line 2: BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Address Line 4: SUNNYVALE, CALIFORNIA 94085

ATTORNEY DOCKET NUMBER: 04860.P31303US1

PAIENI **REEL: 041537 FRAME: 0230** 504199677

NAME OF SUBMITTER:	JAMES C. SCHELLER, REG. NO. 31,195	
SIGNATURE:	/James C. Scheller/	
DATE SIGNED:	01/27/2017	
Total Attachments: 20		
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PATENT REEL: 041537 FRAME: 0231

ASSIGNMENT OF PATENT APPLICATION	Attorney Docket No.: 04860.P31303US1
For good and valuable consideration, the receipt ar	nd sufficiency of which is hereby
acknowledged, I/we, the undersigned,Adele C. Peterson	n, Roberto Garcia, Sam H. Gharabally, David
Alex Carter, Bhaskar Sarma, Kevin Lindeman, Keith Kow	zalczykowski, Justin Wood, Eugene Bistolas,
Craig Federighi	
hereby sell, assign, and transfer to Apple Inc.	<i>-</i>
a <u>corporation</u> of <u>Ca</u> (Type of Assignee: e.g., corporation, company, partnership, university	allifornia y, etc.)
having a principal place of business at 1 Infinite Loop,	. Cupertino, CA, 95014
("Assignee"), and its successors, assigns, and legal represe the United States and all foreign countries, in and to any a disclosed in the application (provisional or non-provisional non-provisional application may have a declaration execut concurrently herewith and which application (provisional	nd all inventions or improvements that are al) for the United States patent which for the ted by the undersigned prior hereto or
MESSAGING APPLICATION INTERACTING V APPLICATIO	
said patent application also identified as follows (when kn	own):
[I/we hereby authorize an attorney or agent for sainumber and filing date of said patent application were application were applicated to the said patent application applicated to the said patent applicated to	
United States Patent Application Number 15/275,136	filed September 23, 2016
and in and to said application (provisional or non-provision provisional applications, utility applications, design applications, continual applications, continual applications, renewal applications, reissue applications, reapplications that have been or shall be filed in the United States inventions or improvements; and in and to all original pate certificates, and extensions, that have been or shall be issued to countries on said inventions or improvements; and in and filing of said United States application;	cations, divisional applications, continuation tion-in-part applications, substitute examinations, extensions, and all other patent States and all foreign countries on any of said ents, reissued patents, reexamination ted in the United States and all foreign
agree that said Assignee may apply for and receive improvements in its own name; and that, when requested, Assignee, its successors, assigns, and legal representatives purpose of this Assignment, the undersigned will execute applications, utility applications, design applications, divis	without charge to, but at the expense of, said s, to carry out in good faith the intent and all provisional applications, non-provisional

continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications on any and all said inventions or improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said inventions or improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or representatives in securing and maintaining

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covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Each Inventor: Please Sign and Date Below:

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Daic		Name: Adele C. Peterson
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Date		Name: Roberto Garcia
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Date		Name: Sam H. Gharabally
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Date	, 20	Name: David Alex Carter
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Date	, w.v	Name: Bhaskar Sarma
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Date	³⁶¹⁹	Name: Kevin Lindeman
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Date		Name: Keith Kowalczykowski
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Date		Name: Justin Wood
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Date		Name: Eugene Bistolas .
	, 20	
Date		Name: Craig Federighi

Assignment Document Return Address:
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP
1279 Oakmead Parkway
Sunnyvale, CA 94085-4040
(408) 720-8300

ASSIGNMENT OF PATENT APPLICATION Attorney Docket No.: 04860.P31303U	SI
For good and valuable consideration, the receipt and sufficiency of which is hereby	
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Alex Carter, Bhaskar Sarma, Kevin Lindeman, Keith Kowalczykowski, Justin Wood, Eugene Bisto	das.
Craig Federighi	
hereby sell, assign, and transfer to Apple Inc.	
a <u>corporation</u> of <u>California</u> ,	
(Type of Assignce: c.g., corporation, company, partnership, university, etc.)	
having a principal place of business at 1 Infinite Loop, Cupertino, CA, 95014,	
("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interes the United States and all foreign countries, in and to any and all inventions or improvements that ar disclosed in the application (provisional or non-provisional) for the United States patent which for the non-provisional application may have a declaration executed by the undersigned prior hereto or concurrently herewith and which application (provisional or non-provisional) is entitled	æ
MESSAGING APPLICATION INTERACTING WITH ONE OR MORE EXTENSION APPLICATIONS	
said patent application also identified as follows (when known):	
[I/we hereby authorize an attorney or agent for said Assignee to insert below the application number and filing date of said patent application when known.]	3
United States Patent Application Number 15/275,136 Filed September 23, 2016	
and in and to said application (provisional or non-provisional) and all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuati applications, continuations, continuations, continuations, continuations, continuations, continuations, renewal applications, reissue applications, reexaminations, extensions, and all other parapplications that have been or shall be filed in the United States and all foreign countries on any of inventions or improvements; and in and to all original patents, reissued patents, reexamination certificates, and extensions, that have been or shall be issued in the United States and all foreign countries on said inventions or improvements; and in and to all rights of priority resulting from the filing of said United States application;	on atent
agree that said Assignee may apply for and receive a patent or patents for said inventions or improvements in its own name; and that, when requested, without charge to, but at the expense of, s Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all provisional applications, non-provision applications, utility applications, design applications, divisional applications, continuation applications continued prosecution applications, continuation-in-part applications, substitute applications, renew applications, reissue applications, reexaminations, extensions, and all other patent applications on an and all said inventions or improvements; execute all rightful oaths, assignments, powers of attorney and other papers; communicate to said Assignee, its successors, assigns, and representatives all fact	seid nal ons, 'al ny

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known to the undersigned relating to said inventions or improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or representatives in securing and maintaining

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Date		Name: Adele C. Peterson
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Date		Name: Roberto Garcia
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Date	, 20	Name: Justin Wood
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Date	, 20	Name: Eugene Bistolas
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Date	, 20	Name: Craig Federighi
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		Assignment Document Return Address:
		BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP 1279 Oakmead Parkway
		Sunnyvale, CA 94085-4040 (408) 720-8300

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SSIGNMENT OF PATENT APPLICATION	Attorney Docket No.: 04860.P31303US1
For good and valuable consideration, the receipt and	d sufficiency of which is hereby
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Alex Carter, Bhaskar Sarma, Kevin Lindeman, Keith Kowa	alczykowski, Justin Wood, Eugene Bistolas,
Craig Federighi	
hereby sell, assign, and transfer to Apple Inc.	·
a <u>corporation</u> of <u>Cal</u> (Type of Assignee: e.g., corporation, company, partnership, university	lifomia
having a principal place of business at 1 Infinite Loop, 6	Cupertino, CA, 95014
("Assignee"), and its successors, assigns, and legal represer the United States and all foreign countries, in and to any an disclosed in the application (provisional or non-provisional non-provisional application may have a declaration execute concurrently herewith and which application (provisional o	d all inventions or improvements that are) for the United States patent which for the ed by the undersigned prior hereto or r non-provisional) is entitled
MESSAGING APPLICATION INTERACTING W APPLICATION	
said patent application also identified as follows (when kno	wn):
[I/we hereby authorize an attorney or agent for said number and filing date of said patent application wh	
United States Patent Application Number 15/275,136	filed September 23, 2016
and in and to said application (provisional or non-provision provisional applications, utility applications, design applications applications, continued prosecution applications, continuate applications, renewal applications, reissue applications, recapplications that have been or shall be filed in the United Stinventions or improvements, and in and to all original patent certificates, and extensions, that have been or shall be issued countries on said inventions or improvements; and in and to filing of said United States application;	tions, divisional applications, continuation on-in-part applications, substitute xaminations, extensions, and all other patent ates and all foreign countries on any of said its, reissued patents, reexamination d in the United States and all foreign
agree that said Assignee may apply for and receive a improvements in its own name; and that, when requested, w Assignee, its successors, assigns, and legal representatives, a purpose of this Assignment, the undersigned will execute all applications, utility applications, design applications, division continued prosecution applications, continuation-in-part applications, reissue applications, reexaminations, extension	ithout charge to, but at the expense of, said to carry out in good faith the intent and I provisional applications, non-provisional onal applications, continuation applications, dications, substitute applications, renewal

and all said inventions or improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said inventions or improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or representatives in securing and maintaining

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ch Inventor	r: Please	Sign <u>and Date</u> Below:
Date	. 20	
Date		Name: Adele C. Peterson
Date	. 20	
Date		Name: Roberto.Garcia
1/23/11	? 20 <u>] {2</u>	<u> </u>
Date		Name: Sam H. Gharabally
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Date		Name: David Alex Curter
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Date	20	Name: Kevin Lindeman
Date	., 20	Name: Keith Kowalczykowski
Date	20	Name: Justin Wood
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	., 20	Name: Eugene Bistolas
Date		
Date	, 20	Suman Canin Kabasaki
(2000)		Name: Craig Federighi

Assignment Document Return Address: BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP 1279 Oakmead Parkway Sunnyvale, CA 94085-4040 (408) 720-8300

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ASSIGNMENT OF PATE	NT APPLICATION	Attorney Docket No.: 04860.P31303US1
For good and valuable	consideration, the receipt and	sufficiency of which is hereby
acknowledged, I/we, the under	rsigned, <u>Adele C. Peterson</u> ,	Roberto Garcia, Sam H. Gharabally, David
Alex Carter, Bhaskar Sarma, I	<u> </u>	<u>lczykowski, Justin Wood, Eugene Bistolas,</u>
Craig Federighi	·······	
hereby sell, assign, and transfe	er to <u>Apple Inc.</u>	
a <u>corporation</u>	of <u>Cal</u> i	ifornia,
(Type of Assignee: e.g., corporation		
having a principal place of bus	siness at <u>I Infinite Loop, (</u>	Supertino, CA, 95014,
the United States and all foreign disclosed in the application (page 4).	gn countries, in and to any and rovisional or non-provisional) ay have a declaration executed	tatives, the entire right, title, and interest fo d all inventions or improvements that are for the United States patent which for the d by the undersigned prior hereto or non-provisional) is entitled
MESSAGING APPLIC	ATION INTERACTING W APPLICATION:	ITH ONE OR MORE EXTENSION S
said patent application also ide	entified as follows (when kno	wn):
	an attorney or agent for said of said patent application wh	Assignee to insert below the application en known.]
United States Patent Application	on Number 15/275,136	filed September 23, 2016
provisional applications, utility applications, continued prosec applications, renewal applications that have been or inventions or improvements; a certificates, and extensions, the	y applications, design applicat ution applications, continuations, reex ons, reissue applications, reex shall be filed in the United Stand and in and to all original paten at have been or shall be issued improvements; and in and to	al) and all provisional applications, non- tions, divisional applications, continuation on-in-part applications, substitute taminations, extensions, and all other patent ates and all foreign countries on any of said ts, reissued patents, reexamination I in the United States and all foreign all rights of priority resulting from the
improvements in its own name Assignee, its successors, assign purpose of this Assignment, th applications, utility application continued prosecution applicat	e; and that, when requested, wons, and legal representatives, the undersigned will execute all as, design applications, divisions, continuation-in-part app	patent or patents for said inventions or ithout charge to, but at the expense of, said to carry out in good faith the intent and provisional applications, non-provisional applications, continuation applications, lications, substitute applications, renewal is, and all other patent applications on any

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- 1 -

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Each Inventor: Please Sign and Date Below:

	, 20	
Date		Name: Adele C. Peterson
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Date		Name: Roberto Garcia
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Date		Name: Sam H. Gharabally
0/53	. 20 \ 6	Name: David Alex Carter
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Date		Name: Bhaskar Sarma
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Assignment Document Return Address:
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP
1279 Oakmead Parkway
Sunnyvale, CA 94085-4040
(408) 720-8300

ASSIGNMENT OF PATENT APPLICATION Attorney Docket No.: 04860,P31303US1
For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I/we, the undersigned, Adele C. Peterson, Roberto Garcia, Sam H. Gharabally, David Alex Carter, Bhaskar Sarma, Kevin Lindeman, Keith Kowalczykowski, Justin Wood, Eugene Bistolas,
Craig Federighi
hereby sell, assign, and transfer to Apple Inc.
a <u>corporation</u> of <u>California</u> , (Type of Assignee: e.g., corporation, company, partnership, university, etc.)
having a principal place of business at <u>1 Infinite Loop, Cupertino, CA, 95014</u> ,
("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all inventions or improvements that are disclosed in the application (provisional or non-provisional) for the United States patent which for the non-provisional application may have a declaration executed by the undersigned prior hereto or concurrently herewith and which application (provisional or non-provisional) is entitled
MESSAGING APPLICATION INTERACTING WITH ONE OR MORE EXTENSION APPLICATIONS
said patent application also identified as follows (when known);
[I/we hereby authorize an attorney or agent for said Assignee to insert below the application number and filing date of said patent application when known.]
United States Patent Application Number 15/275,136 filed September 23, 2016
and in and to said application (provisional or non-provisional) and all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continuations, continuations, continuations, continuations, continuations, continuations, continuations, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications that have been or shall be filed in the United States and all foreign countries on any of said inventions or improvements; and in and to all original patents, reissued patents, reexamination certificates, and extensions, that have been or shall be issued in the United States and all foreign countries on said inventions or improvements; and in and to all rights of priority resulting from the filing of said United States application;
agree that said Assignee may apply for and receive a patent or patents for said inventions or improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, renewal applications applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications on any and all said inventions or improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said inventions or improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or representatives in securing and maintaining

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Date	Name: Adele C. Peterson
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Date	Name: Roberto Garcia
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Date	Name: Sam H. Gharabally
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/25 _{, 20} 17	Name: David Alex Carter
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	BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP 1279 Oakmead Parkway
	Sunnyvale, CA 94085-4040 (408) 720-8300

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("Assignee"), and its successors, assigns, and legal represent the United States and all foreign countries, in and to any and disclosed in the application (provisional or non-provisional non-provisional application may have a declaration execute concurrently herewith and which application (provisional or concurrently herewith and or concurrently herewith	id all inventions or improvements that are i) for the United States patent which for the ed by the undersigned prior hereto or
MESSAGING APPLICATION INTERACTING W APPLICATION	
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Date	3 #V	Name: Adele C. Peterson
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		Assignment Document Return Address: BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP
		1279 Oakmead Parkway
		Sunnyvale, CA 94085-4040 (408) 720-8300

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covenant with said Assignce, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Each Inventor: Please Sign and Date Below:

	. 20	
Date		Name: Adele C. Peterson
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Date		Name: Roberto Garcia
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Date		Name: Sam H. Gharabally
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Date		Name: David Alex Carter
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Date		Nume: Bhaskar Sarma
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Date		Name: Kevin Lindeman
11/(0	. 20 C	Name: Keith Kowolczykowski
Date		Name: Keith Kowolczykowski
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Date		Name: Justin Wood
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Date		Name: Eugene Bistolas
	. 20	
Date		Name: Craig Federighi

Assignment Document Return Address:
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP
1279 Oakmead Parkway
Sunnyvale, CA 94085-4040
(408) 720-8300

ASSIGNMENT OF PATENT APPLICATION	Attorney Docket No.: 04860.P31303US1
For good and valuable consideration, the receipt at	nd sufficiency of which is hereby
acknowledged, I/we, the undersigned, <u>Adele C. Peterso</u>	on, Roberto Garcia, Sam H. Gharabally, David
Alex Carter, Bhaskar Sarma, Kevin Lindeman, Keith Kow	valczykowski, Justin Wood, Eugene Bistolas,
Craig Federighi	
hereby sell, assign, and transfer to Apple Inc.	
a <u>corporation</u> of <u>Cr</u> (Type of Assignce: e.g., corporation, company, partnership, universit	alifornia , ty, etc.)
having a principal place of business at 1 Infinite Loop.	. Cupertino, CA, 95014
("Assignee"), and its successors, assigns, and legal repress the United States and all foreign countries, in and to any a disclosed in the application (provisional or non-provisional non-provisional application may have a declaration execut concurrently herewith and which application (provisional	and all inventions or improvements that are al) for the United States patent which for the steed by the undersigned prior hereto or
MESSAGING APPLICATION INTERACTING N APPLICATION	
said patent application also identified as follows (when kn	iown):
[I/we hereby authorize an attorney or agent for sai number and filing date of said patent application v	
United States Patent Application Number 15/275,136	filed September 23, 20,16
and in and to said application (provisional or non-provision provisional applications, utility applications, design applications, continued prosecution applications, continua applications, renewal applications, reissue applications, reapplications that have been or shall be filed in the United inventions or improvements; and in and to all original pate certificates, and extensions, that have been or shall be issued countries on said inventions or improvements; and in and filing of said United States application;	cations, divisional applications, continuation ation-in-part applications, substitute examinations, extensions, and all other patent States and all foreign countries on any of said ents, reissued patents, reexamination ued in the United States and all foreign
agree that said Assignee may apply for and receive improvements in its own name; and that, when requested, Assignee, its successors, assigns, and legal representatives purpose of this Assignment, the undersigned will execute applications, utility applications, design applications, divis continued prosecution applications, continuation-in-part applications, reissue applications, reexaminations, extension all said inventions or improvements; execute all rights	without charge to, but at the expense of, said s, to carry out in good faith the intent and all provisional applications, non-provisional sional applications, continuation applications, applications, substitute applications, renewal ions, and all other patent applications on any

Rev. 1/08/2010

and other papers; communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said inventions or improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or representatives in securing and maintaining

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Each Inventor: Please Sign and Date Below:

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Date	accountance, accountance,	Name: Adele C. Peterson
Dat	2	Name: Roberto García
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Dat	2	Name: Sam H. Gharabally
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Dat	2	Name: David Alex Carter
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Dat	2	Name: Bhaskar Sarma
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Oct 26	_{. 20} 16	
Dat	E	Name: Justin Wood
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Dat	C	Name: Eugene Bistolus
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Dat	€	Name: Craig Federighi

Assignment Document Return Address:
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP
1279 Oakmend Parkway
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(408) 720-8300

ASSIGNMENT OF PATENT APPLICATION	Attorney Docket No.: 04860.P31303US1
For good and valuable consideration, the receipt an	d sufficiency of which is hereby
acknowledged, I/we, the undersigned, Adele C. Peterson	
Alex Carter, Bhaskar Sarma, Kevin Lindeman, Keith Kowi	
Craig Federighi	
hereby sell, assign, and transfer to <u>Apple Inc.</u>	
a <u>corporation</u> of <u>Cu</u>	lifornia ,
(Type of Assignce: e.g., corporation, company, partnership, university	/, etc.)
having a principal place of business at 1 Infinite Loop.	Cupertino, CA, 95014,
("Assignee"), and its successors, assigns, and legal represent the United States and all foreign countries, in and to any and disclosed in the application (provisional or non-provisional non-provisional application may have a declaration execute concurrently herewith and which application (provisional concurrently herewith and which application (provisional concurrent).	nd all inventions or improvements that are I) for the United States patent which for the ed by the undersigned prior hereto or
MESSAGING APPLICATION INTERACTING V APPLICATION	
said patent application also identified as follows (when kno	own):
[I/we hereby authorize an attorney or agent for said number and filing date of said patent application w	
United States Patent Application Number 15/275,136	filed September 23, 2016
and in and to said application (provisional or non-provision provisional applications, utility applications, design applications applications, continued prosecution applications, continuat applications, renewal applications, reissue applications, ree applications that have been or shall be filed in the United Sinventions or improvements; and in and to all original pater certificates, and extensions, that have been or shall be issue countries on said inventions or improvements; and in and to filing of said United States application;	ations, divisional applications, continuation ion-in-part applications, substitute examinations, extensions, and all other patent tates and all foreign countries on any of said nts, reissued patents, reexamination ed in the United States and all foreign
agree that said Assignee may apply for and receive improvements in its own name; and that, when requested, to Assignee, its successors, assigns, and legal representatives, purpose of this Assignment, the undersigned will execute a applications, utility applications, design applications, divisiontinued prosecution applications, continuation-in-part applications, reissue applications, reexaminations, extension and all said inventions or improvements; execute all rightful and other papers; communicate to said Assignee, its successions.	without charge to, but at the expense of, said, to carry out in good faith the intent and all provisional applications, non-provisional ional applications, continuation applications, oplications, substitute applications, renewal ons, and all other patent applications on any all oaths, assignments, powers of attorney.

Rev. 1/08/2010

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covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Date Date Name: Adele C. Peterson 20 Date Name: Roberto Garcia 20 Date Name: Sam H. Gharabally 20 Date Name: David Alex Carter 20 Date Name: Bhaskar Sarma 20 Date Name: Kevin Lindeman 20 Date Name: Keith Kowalczykowski 20 Date Name: Justin Wood 9/19 2016 Name: Eugene Bistolas Assignment Document Return Address: BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLI 1279 Oakmead Parkway		วก	
Date Name: Sam H. Gharabally , 20 Date Name: David Alex Carter , 20 Date Name: Bhaskar Sarma , 20 Date Name: Kevin Lindeman , 20 Date Name: Keith Kowalczykowski , 20 Date Name: Justin Wood 9/19 Date Name: Eugene Bistolas Assignment Document Return Address: BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLJ	Date	9 23	Name: Adele C. Peterson
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Date Name: Kevin Lindeman , 20 Date Name: Keith Kowalczykowski , 20 Date Name: Justin Wood 9/19 , 2016 Date Name: Eugene Bistolas Date Name: Craig Federighi Assignment Document Return Address: BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLJ		20	
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Date Name: Justin Wood 9/19 2016	Date		Name: Keith Kowalczykowski
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Date Name: Eugene Bistolas , 20 Date Name: Craig Federighi Assignment Document Return Additiss: BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLJ	9/19	20 <u>.16</u>	<i>U.S.</i>
Date Name: Craig Federighi <u>Assignment Document Return Address:</u> BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLJ	Date		Name: Eugene Bistolas
Date Name: Craig Federighi <u>Assignment Document Return Address:</u> BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLJ		. 20	
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LU	Date		Name: Craig Federighi
Sunnyvale, CA 94085-4040			BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLF 1279 Oakmead Parkway

ASSIGNMENT OF PATENT APPLICATIO	
For good and valuable consideration, the rece	ips and sufficiency of which is hereby
acknowledged, I/we, the undersigned, Adels C. Po	terson, Roberto Garcia, Sam H. Gharabally, Dayid.
Alex Carter, Bhaskar Sarma, Kevin Lindsman, Kelth	Kowsiczykowski, Justin Wood, Eugens Bistoles.
hereby sell, assign, and transfer to <u>Apple Inc.</u>	
a <u>composition</u> of (Type of Assignes: e.g., corposition, company, partnership, so	Celifornia iversky, etc.)
having a principal place of business at1 Infinite_	Loop, Curertino, CA, 95014
("Assignee"), and its successors, assigns, and legal re the United States and all foreign countries, in and to disclosed in the application (provisional or non-prov- non-provisional application may have a declaration of concurrently herewith and which application (provis- MESSAGING APPLICATION INTERACTION	any and all inventions of improvements that are isional) for the United States patent which for the executed by the undersigned prior hareto or ional or non-provisional) is entitled
APPLIC/	ATIONS
said patent application also identified as follows (wi	en known):
number and filing date of said patent applies	
United States Patent Application Number	5,136 filed September 23, 2016
and in and to said application (provisional or non-pa provisional applications, utility applications, design applications, continued prosecution applications, co applications, renewal applications, reissue application applications that have been or shall be filed in the U inventions or improvements; and in and to all origin certificates, and extensions, that have been or shall countries on said inventions or improvements; and filing of said United States application;	covisional) and all provisional applications, non- applications, divisional applications, continuation atinuation-in-part applications, substitute ans, reexaminations, extensions, and all other pateo inited States and all foreign countries on any of sair tal patents, reissued patents, reexamination by issued in the United States and all foreign
agree that said Assignee may apply for and improvements in its own name; and that, when requesting a successors, assigns, and legal represent the undersigned will expedit applications, utility applications, design applications applications continuation-in applications, reissue applications, continuation-in applications, reissue applications, reexaminations, and all said inventions or improvements; execute a said other papers; communicate to said Assignee, it known to the undersigned relating to said invention generally assist said Assignee, its successors, assigneed.	statives, to carry out in good tain sie measures secure all provisional applications, non-provisional is, divisional applications, continuation applications in part applications, renewal extensions, and all other patent applications on any il rightful oaths, assignments, powers of attorney, a successors, assigns, and representatives all facts as or improvements and the history thereof; and

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Rev. 1/08/2010

REEL: 041537 FRAME: 0250

Each Inventor	: Please Si	gn <u>and Date</u> Below:
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Date		Name: Adele C. Peterson
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Date		Millie: Vocesio omera
Date	, 20	Name: Sam H. Ghambally
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Date	, «V	Name: David Alex Caster
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Date		Name: Bhaskar Sarma
Date	, 20	Name: Kevin Lindeman
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Date	., £0	Name: Keith Kowatezykowski
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Date	Wt > 20000000000	Name: Justin Wood
***************************************	_, 20	P. Timber
Date (//		Name: Eugene Bistolus
Oct 14	,20 <u>16</u>	Name: Chilg Federighi
&2#HU		
		Assignment Document Return Address
		BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP 1279 Oakmeed Parkway
		Sunnyvale, CA 94085-4040 (408) 720-8300

RECORDED: 01/27/2017