505386711 03/21/2019 PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5433504

SUBMISSION TYPE:	NEW ASSIGNMENT			
NATURE OF CONVEYANCE:	ASSIGNMENT			
CONVEYING PARTY DATA				
	Name	Execution Date		
ADAM A. SONNANSTINE		03/11/2019		
APARNA S. AKELLA		03/12/2019		
SHREYAS NANDAGUDI SREESI	HA	03/11/2019		
ASTRID YI		03/01/2019		
DAVID P. SARACINO		03/08/2019		
DEEPAK IYER		03/01/2019		
EDWARD T. SCHMIDT		03/06/2019		
ELENA LEYFMAN		03/11/2019		
GREGORY R. CHAPMAN		03/01/2019		
JOANATHAN A. BENNETT		03/01/2019		
THOMAS ALSINA		03/02/2019		

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:	16287999

CORRESPONDENCE DATA

Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.vising a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.Phone:408-664-6475Email:Tamara@Invokeip.comCorrespondent Name:TAMARA RUEDAAddress Line 1:84 W. SANTA CLARA STREET, SUITE 500Address Line 4:SAN JSOE, CALIFORNIA 95113

ATTORNEY DOCKET NUMBER:	A00471NP	
NAME OF SUBMITTER: TAMARA RUEDA		
SIGNATURE:	/Tamara Rueda/	
DATE SIGNED:	03/21/2019	
Total Attachments: 11		
source=A00471NP_Assignments#page1.tif		
source=A00471NP_Assignments#page2.tif		
source=A00471NP_Assignments#page3.tif		
source=A00471NP_Assignments#page4.tif		
source=A00471NP_Assignments#page5.tif		
source=A00471NP_Assignments#page6.tif		
source=A00471NP_Assignments#page7.tif		
source=A00471NP_Assignments#page8.tif		
source=A00471NP_Assignments#page9.tif		
source=A00471NP_Assignments#page10.tif		
source=A00471NP_Assignments#page11.tif		

Invoke Docket No. A00471NP

ASSIGNMENT-WORLDWIDE

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned individual (referred to herein as the "INVENTOR") hereby assigns, transfers, and sets over to:

Apple Inc.

having the following address:

One Apple Park Way, Cupertino, CA 95014

(referred to herein as "COMPANY"), its successors, and assigns, the entire right, title, and interest, worldwide, in and to the Invention known by the following title:

Pairing Devices by Proxy

for which the undersigned has/have executed an application for patent in the United States of America on or about this same day, together with said patent application, all corresponding provisionals, all divisionals, continuations, continuationsin-part, reissues, and extensions thereof, and all Letters Patent (domestic and foreign) which may be granted therefor. Such interest represents the entire ownership of said applications and Letters Patent when granted and is to be owned by COMPANY, its successors, and assigns, or their legal representatives, for the full and entire term for which such Letters Patent may be granted or extended, as fully and entirely as the same would have been enjoyed by the INVENTOR if this assignment had not been made. In addition, the undersigned INVENTOR hereby agrees:

- To sign and execute any further documents which may be necessary or desirable, lawful, and proper in connection 1. with the prosecution of all applications for patent(s) on the INVENTION in the United States, including without limitation said application and all divisions, continuations, continuations-in-part, amendments thereof, and all interference proceedings associated therewith, or otherwise necessary or desirable to secure the title thereto to COMPANY;
- To execute all papers and documents and to perform all lawful acts which may be necessary in connection with 2. claims to priority or otherwise under the International Convention for the Protection of Industrial Property or similar treaties or agreements;
- To perform all lawful affirmative acts which may be necessary to obtain the grant of a valid and enforceable patent. З. to COMPANY.

The undersigned INVENTOR each hereby authorizes and requests the Commissioner of Patents and Trademarks in the United States to issue any and all Letters Patent resulting from said application, including without limitation any division, continuation, continuation-in-part, or reissue thereof to COMPANY.

The undersigned INVENTOR each hereby grant to the COMPANY the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for the recordation of this document.

IN WITNESS WHEREOF, this Assignment has been executed by the undersigned individual on the date appearing by such individual's signature:

1<u>3/11/</u>2019 Date

When this Assignment is not filed concurrently with the patent application, the following identifying information may be added after execution:

U.S. Patent Application Serial No.: 16/287,999

Filing Date: 02/27/2019

Invoke Docket No. A00471NP

ASSIGNMENT-WORLDWIDE

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned individual (referred to herein as the "INVENTOR") hereby assigns, transfers, and sets over to:

Apple Inc.

having the following address:

One Apple Parkway, Cupertino, CA 95014

(referred to herein as "COMPANY"), its successors, and assigns, the entire right, title, and interest, worldwide, in and to the invention known by the following title:

Pairing Devices by Proxy

for which the undersigned has/have executed an application for patent in the United States of America on or about this same day, together with said patent application, all corresponding provisionals, all divisionals, continuations, continuationsin-part, reissues, and extensions thereof, and all Letters Patent (domestic and foreign) which may be granted therefor. Such interest represents the entire ownership of said applications and Letters Patent when granted and is to be owned by COMPANY, its successors, and assigns, or their legal representatives, for the full and entire term for which such Letters Patent may be granted or extended, as fully and entirely as the same would have been enjoyed by the INVENTOR if this assignment had not been made. In addition, the undersigned INVENTOR hereby agrees:

- To sign and execute any further documents which may be necessary or desirable, lawful, and proper in connection 1. with the prosecution of all applications for patent(s) on the INVENTION in the United States, including without limitation said application and all divisions, continuations, continuations-in-part, amendments thereof, and all interference proceedings associated therewith, or otherwise necessary or desirable to secure the title thereto to COMPANY;
- 2. To execute all papers and documents and to perform all lawful acts which may be necessary in connection with claims to priority or otherwise under the International Convention for the Protection of Industrial Property or similar treaties or agreements;
- To perform all lawful affirmative acts which may be necessary to obtain the grant of a valid and enforceable patent 3. to COMPANY.

The undersigned INVENTOR each hereby authorizes and requests the Commissioner of Patents and Trademarks in the United States to issue any and all Letters Patent resulting from said application, including without limitation any division, continuation, continuation in-part, or reissue thereof to COMPANY.

The undersigned INVENTOR each hereby grant to the COMPANY the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for the recordation of this document.

In witness whereor, this Assignment has been executed by the undersigned individual on the date appearing by such individual's signature:

Inventor Name Aparna S. Akella

1 12 Mar 2019 Date

When this Assignment is not filed concurrently with the patent application, the following identifying information may be added after execution:

U.S. Patent Application Serial No.: 16/287,999

Invoke Docket No. A00471NP

ASSIGNMENT - WORLDWIDE

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned individual (referred to herein as the "INVENTOR") hereby assigns, transfers, and sets over to:

Apple Inc.

having the following address:

One Apple Park Way, Cupertino, CA 95014

(referred to herein as "COMPANY"), its successors, and assigns, the entire right, title, and interest, worldwide, in and to the invention known by the following title:

Pairing Devices by Proxy

for which the undersigned has/have executed an application for patent in the United States of America on or about this same day, together with said patent application, all corresponding provisionals, all divisionals, continuations, continuationsin-part, reissues, and extensions thereof, and all Letters Patent (domestic and foreign) which may be granted therefor. Such interest represents the entire ownership of said applications and Letters Patent when granted and is to be owned by COMPANY, its successors, and assigns, or their legal representatives, for the full and entire term for which such Letters' Patent may be granted or extended, as fully and entirely as the same would have been enjoyed by the INVENTOR if this assignment had not been made. In addition, the undersigned INVENTOR hereby agrees:

- 3. To sign and execute any further documents which may be necessary or desirable, lawful, and proper in connection with the prosecution of all applications for patent(s) on the INVENTION in the United States, including without limitation said application and all divisions, continuations, continuations-in-part, amendments thereof, and all interference proceedings associated therewith, or otherwise necessary or desirable to secure the title thereto to COMPANY;
- 2. To execute all papers and documents and to perform all lawful acts which may be necessary in connection with claims to priority or otherwise under the International Convention for the Protection of Industrial Property or similar treaties or agreements:
- 3 To perform all lawful affirmative acts which may be necessary to obtain the grant of a valid and enforceable patent to COMPANY.

The undersigned INVENTOR each hereby authorizes and requests the Commissioner of Patents and Trademarks in the United States to issue any and all Letters Patent resulting from said application, including without limitation any division, continuation, continuation-in-part, or reissue thereof to COMPANY.

The undersigned INVENTOR each hereby grant to the COMPANY the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for the recordation of this document.

IN WITNESS WHEREOF, this Assignment has been executed by the undersigned individual on the date appearing by such individual's signature:

,11-MAR-2019

Inventor Name: Shreyas Nandagudi Sreesha

Date

When this Assignment is not filed concurrently with the patent application, the following identifying information may be added after execution:

U.S. Patent Application Serial No:: 16/287,999

Filing Date: 02/27/2019

Assignment-Worldwide

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned individual (referred to herein as the "INVENTOR") hereby assigns, transfers, and sets over to:

Apple Inc.

having the following address:

One Apple Parkway, Cupertino, CA 95014

(referred to herein as "COMPANY"), its successors, and assigns, the entire right, title, and interest, worldwide, in and to the invention known by the following title:

Pairing Devices by Proxy

for which the undersigned has/have executed an application for patent in the United States of America on or about this same day, together with said patent application, all corresponding provisionals, all divisionals, continuations, continuationsin-part, reissues, and extensions thereof, and all Letters Patent (domestic and foreign) which may be granted therefor. Such interest represents the entire ownership of said applications and Letters Patent when granted and is to be owned by COMPANY, its successors, and assigns, or their legal representatives, for the full and entire term for which such Letters Patent may be granted or extended, as fully and entirely as the same would have been enjoyed by the INVENTOR if this assignment had not been made. In addition, the undersigned INVENTOR hereby agrees:

- To sign and execute any further documents which may be necessary or desirable, lawful, and proper in connection with the prosecution of all applications for patent(s) on the INVENTION in the United States, including without limitation said application and all divisions, continuations, continuations-in-part, amendments thereof, and all interference proceedings associated therewith, or otherwise necessary or desirable to secure the title thereto to COMPANY;
- To execute all papers and documents and to perform all lawful acts which may be necessary in connection with claims to priority or otherwise under the International Convention for the Protection of Industrial Property or similar treaties or agreements;
- To perform all lawful affirmative acts which may be necessary to obtain the grant of a valid and enforceable patent to COMPANY.

The undersigned INVENTOR each hereby authorizes and requests the Commissioner of Patents and Trademarks in the United States to issue any and all Letters Patent resulting from said application, including without limitation any division, continuation, continuation-in-part, or reissue thereof to COMPANY.

The undersigned INVENTOR each hereby grant to the COMPANY the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for the recordation of this document.

IN WITNESS WHEREOF, this Assignment has been executed by the undersigned individual on the date appearing by such individual's signature:

Inventor Name: Astrid

____03/01/2019

When this Assignment is not filed concurrently with the patent application, the following identifying information may be added after execution:

U.S. Patent Application Serial No.: 16/287,999

Filing Date: 02/27/2019

Invoke Docket No. A00471NP

ASSIGNMENT-WORLDWIDE

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned Individual (referred to herein as the "INVENTOR") hereby assigns, transfers, and sets over to:

Apple Inc.

having the following address:

One Apple Parkway, Cupertino, CA 95014

(referred to herein as "COMPANY"), its successors, and assigns, the entire right, title, and interest, worldwide, in and to the invention known by the following title:

Pairing Devices by Proxy

for which the undersigned has/have executed an application for patent in the United States of America on or about this same day, together with said patent application, all corresponding provisionals, all divisionals, continuations, continuationsin-part, reissues, and extensions thereof, and all Letters Patent (domestic and foreign) which may be granted therefor. Such interest represents the entire ownership of said applications and Letters Patent when granted and is to be owned by COMPANY, its successors, and assigns, or their legal representatives, for the full and entire term for which such Letters Patent may be granted or extended, as fully and entirely as the same would have been enjoyed by the INVENTOR if this assignment had not been made. In addition, the undersigned INVENTOR hereby agrees:

- 1 To sign and execute any further documents which may be necessary or desirable, lawful, and proper in connection with the prosecution of all applications for patent(s) on the INVENTION in the United States, including without limitation said application and all divisions, continuations, continuations-in-part, amendments thereof, and all interference proceedings associated therewith, or otherwise necessary or desirable to secure the title thereto to COMPANY:
- 2iTo execute all papers and documents and to perform all lawful acts which may be necessary in connection with claims to priority or otherwise under the International Convention for the Protection of Industrial Property or similar treaties or agreements;
- 3. To perform all lawful affirmative acts which may be necessary to obtain the grant of a valid and enforceable patent to COMPANY.

The undersigned INVENTOR each hereby authorizes and requests the Commissioner of Patents and Trademarks in the United States to issue any and all Letters Patent resulting from said application, including without limitation any division, continuation, continuation-in-part, or reissue thereof to COMPANY.

The undersigned INVENTOR each hereby grant to the COMPANY the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for the recordation of this document.

IN WITNESS WHEREOF, this Assignment has been executed by the undersigned individual on the date appearing by such individual's signature:

Inventor Name: David P. Saracino

When this Assignment is not filed concurrently with the patent application, the following identifying information may be added after execution:

U.S. Patent Application Serial No.: 16/287,999

ASSIGNMENT-WORLDWIDE

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned individual (referred to herein as the "INVENTOR") hereby assigns, transfers, and sets over to:

Apple Inc.

having the following address:

One Apple Parkway, Cupertino, CA 95014

(referred to herein as "COMPANY"), its successors, and assigns, the entire right, title, and interest, worldwide, in and to the invention known by the following title:

Pairing Devices by Proxy

for which the undersigned has/have executed an application for patent in the United States of America on or about this same day, together with said patent application, all corresponding provisionals, all divisionals, continuations, continuationsin-part, reissues, and extensions thereof, and all Letters Patent (domestic and foreign) which may be granted therefor. Such interest represents the entire ownership of said applications and Letters Patent when granted and is to be owned by COMPANY, its successors, and assigns, or their legal representatives, for the full and entire term for which such Letters Patent may be granted or extended, as fully and entirely as the same would have been enjoyed by the INVENTOR if this assignment had not been made. In addition, the undersigned INVENTOR hereby agrees:

- 1. To sign and execute any further documents which may be necessary or desirable, lawful, and proper in connection with the prosecution of all applications for patent(s) on the INVENTION in the United States, including without limitation said application and all divisions, continuations, continuations-in-part, amendments thereof, and all interference proceedings associated therewith, or otherwise necessary or desirable to secure the title thereto to COMPANY;
- 2 To execute all papers and documents and to perform all lawful acts which may be necessary in connection with claims to priority or otherwise under the International Convention for the Protection of Industrial Property or similar treaties or agreements;
- 3. To perform all lawful affirmative acts which may be necessary to obtain the grant of a valid and enforceable patent to COMPANY.

The undersigned INVENTOR each hereby authorizes and requests the Commissioner of Patents and Trademarks in the United States to issue any and all Letters Patent resulting from said application, including without limitation any division, continuation, continuation-in-part, or reissue thereof to COMPANY.

The undersigned INVENTOR each hereby grant to the COMPANY the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for the recordation of this document.

IN WITNESS WHEREOF, this Assignment has been executed by the undersigned individual on the date appearing by such individual's signature:

Inventor Name: Deepak lyer

<u>______</u> Date

When this Assignment is not filed concurrently with the patent application, the following identifying information may be added after execution:

U.S. Patent Application Serial No.: 16/287,999

Invoke Docket No. A00471NP

Assignment – Worldwide

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned individual (referred to herein as the "INVENTOR") hereby assigns, transfers, and sets over to:

Apple Inc.

having the following address:

One Apple Parkway, Cupertino, CA 95014

(referred to herein as "COMPANY"), its successors, and assigns, the entire right, title, and interest, worldwide, in and to the invention known by the following title:

Pairing Devices by Proxy

for which the undersigned has/have executed an application for patent in the United States of America on or about this same day, together with said patent application, all corresponding provisionals, all divisionals, continuations, continuationsin-part, reissues, and extensions thereof, and all Letters Patent (domestic and foreign) which may be granted therefor. Such interest represents the entire ownership of said applications and Letters Patent when granted and is to be owned by COMPANY, its successors, and assigns, or their legal representatives, for the full and entire term for which such Letters Patent may be granted or extended, as fully and entirely as the same would have been enjoyed by the INVENTOR if this assignment had not been made. In addition, the undersigned INVENTOR hereby agrees:

- 1. To sign and execute any further documents which may be necessary or desirable, lawful, and proper in connection with the prosecution of all applications for patent(s) on the INVENTION in the United States, including without limitation said application and all divisions, continuations, continuations-in-part, amendments thereof, and all interference proceedings associated therewith, or otherwise necessary or desirable to secure the title thereto to COMPANY;
- To execute all papers and documents and to perform all lawful acts which may be necessary in connection with claims to priority or otherwise under the International Convention for the Protection of Industrial Property or similar treaties or agreements;
- 3. To perform all lawful affirmative acts which may be necessary to obtain the grant of a valid and enforceable patent to COMPANY.

The undersigned INVENTOR each hereby authorizes and requests the Commissioner of Patents and Trademarks in the United States to issue any and all Letters Patent resulting from said application, including without limitation any division, continuation, continuation-in-part, or reissue thereof to COMPANY.

The undersigned INVENTOR each hereby grant to the COMPANY the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for the recordation of this document.

IN WITNESS WHEREOF, this Assignment has been executed by the undersigned individual on the date appearing by such individual's signature:

Jal Sumit

Inventor Name: Edward T. Schmidt

/<u>3/6/19</u> Date

When this Assignment is <u>not</u> filed concurrently with the patent application, the following identifying information may be added <u>after</u> execution:

U.S. Patent Application Serial No.: 16/287,999

Filing Date: 02/27/2019

Invoke Docket No. A00471NP

ASSIGNMENT-WORLDWIDE

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned individual (referred to herein as the "INVENTOR") hereby assigns, transfers, and sets over to:

Apple Inc.

having the following address:

One Apple Park Way, Cupertino, CA 95014

(referred to herein as "COMPANY"), its successors, and assigns, the entire right, title, and interest, worldwide, in and to the invention known by the following title:

Pairing Devices by Proxy

for which the undersigned has/have executed an application for patent in the United States of America on or about this same day, together with said patent application, all corresponding provisionals, all divisionals, continuations, continuationsin-part, reissues, and extensions thereof, and all Letters Patent (domestic and foreign) which may be granted therefor. Such interest represents the entire ownership of said applications and Letters Patent when granted and is to be owned by COMPANY, its successors, and assigns, or their legal representatives, for the full and entire term for which such Letters Patent may be granted or extended, as fully and entirely as the same would have been enjoyed by the INVENTOR if this assignment had not been made. In addition, the undersigned INVENTOR hereby agrees:

- 1. To sign and execute any further documents which may be necessary or desirable, lawful, and proper in connection with the prosecution of all applications for patent(s) on the INVENTION in the United States, including without limitation said application and all divisions, continuations, continuations-in-part, amendments thereof, and all interference proceedings associated therewith, or otherwise necessary or desirable to secure the title thereto to COMPANY;
- 2. To execute all papers and documents and to perform all lawful acts which may be necessary in connection with claims to priority or otherwise under the International Convention for the Protection of Industrial Property or similar treaties or agreements;
- 3. To perform all lawful affirmative acts which may be necessary to obtain the grant of a valid and enforceable patent to COMPANY.

The undersigned INVENTOR each hereby authorizes and requests the Commissioner of Patents and Trademarks in the United States to issue any and all Letters Patent resulting from said application, including without limitation any division, continuation, continuation-in-part, or reissue thereof to COMPANY.

The undersigned INVENTOR each hereby grant to the COMPANY the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for the recordation of this document.

IN WITNESS WHEREOF, this Assignment has been executed by the undersigned individual on the date appearing by such individual's signature:

Inventor Name: Elena Leyfman

3/11/2019

When this Assignment is not filed concurrently with the patent application, the following identifying information may be added after execution:

U.S. Patent Application Serial No.: 16/287,999

Filing Date: 02/27/2019

Invoke Docket No. A00471NP

ASSIGNMENT-WORLDWIDE

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned individual (referred to herein as the "INVENTOR") hereby assigns, transfers, and sets over to:

Apple Inc.

having the following address:

One Apple Parkway, Cupertino, CA 95014

(referred to herein as "COMPANY"), its successors, and assigns, the entire right, title, and interest, worldwide, in and to the invention known by the following title:

Pairing Devices by Proxy

for which the undersigned has/have executed an application for patent in the United States of America on or about this same day, together with said patent application, all corresponding provisionals, all divisionals, continuations, continuationsin-part, reissues, and extensions thereof, and all Letters Patent (domestic and foreign) which may be granted therefor. Such interest represents the entire ownership of said applications and Letters Patent when granted and is to be owned by COMPANY, its successors, and assigns, or their legal representatives, for the full and entire term for which such Letters Patent may be granted or extended, as fully and entirely as the same would have been enjoyed by the INVENTOR if this assignment had not been made. In addition, the undersigned INVENTOR hereby agrees:

- To sign and execute any further documents which may be necessary or desirable, lawful, and proper in connection with the prosecution of all applications for patent(s) on the INVENTION in the United States, including without limitation said application and all divisions, continuations, continuations-in-part, amendments thereof, and all interference proceedings associated therewith, or otherwise necessary or desirable to secure the title thereto to COMPANY;
- To execute all papers and documents and to perform all lawful acts which may be necessary in connection with claims to priority or otherwise under the International Convention for the Protection of Industrial Property or similar treaties or agreements;
- To perform all lawful affirmative acts which may be necessary to obtain the grant of a valid and enforceable patent to COMPANY.

The undersigned INVENTOR each hereby authorizes and requests the Commissioner of Patents and Trademarks in the United States to issue any and all Letters Patent resulting from said application, including without limitation any division, continuation, continuation-in-part, or reissue thereof to COMPANY.

The undersigned INVENTOR each hereby grant to the COMPANY the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for the recordation of this document.

IN WITNESS WHEREOF, this Assignment has been executed by the undersigned individual on the date appearing by such individual's signature:

Inventor Name: Gregory R. Chapman 13/1/2019

When this Assignment is not filed concurrently with the patent application, the following identifying information may be added after execution:

U.S. Patent Application Serial No.: 16/287,999

ASSIGNMENT-WORLDWIDE

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned individual (referred to herein as the "INVENTOR") hereby assigns, transfers, and sets over to:

Apple Inc.

having the following address:

One Apple Parkway, Cupertino, CA 95014

(referred to herein as "COMPANY"), its successors, and assigns, the entire right, title, and interest, worldwide, in and to the invention known by the following title:

Pairing Devices by Proxy

for which the undersigned has/have executed an application for patent in the United States of America on or about this same day, together with said patent application, all corresponding provisionals, all divisionals, continuations, continuationsin-part, reissues, and extensions thereof, and all Letters Patent (domestic and foreign) which may be granted therefor. Such interest represents the entire ownership of said applications and Letters Patent when granted and is to be owned by COMPANY, its successors, and assigns, or their legal representatives, for the full and entire term for which such Letters Patent may be granted or extended, as fully and entirely as the same would have been enjoyed by the INVENTOR if this assignment had not been made. In addition, the undersigned INVENTOR hereby agrees:

- 1. To sign and execute any further documents which may be necessary or desirable, lawful, and proper in connection with the prosecution of all applications for patent(s) on the INVENTION in the United States, including without limitation said application and all divisions, continuations, continuations-in-part, amendments thereof, and all interference proceedings associated therewith, or otherwise necessary or desirable to secure the title thereto to COMPANY:
- 2. To execute all papers and documents and to perform all lawful acts which may be necessary in connection with claims to priority or otherwise under the International Convention for the Protection of Industrial Property or similar treaties or agreements;
- 3. To perform all lawful affirmative acts which may be necessary to obtain the grant of a valid and enforceable patent to COMPANY.

The undersigned INVENTOR each hereby authorizes and requests the Commissioner of Patents and Trademarks in the United States to issue any and all Letters Patent resulting from said application, including without limitation any division, continuation, continuation-in-part, or reissue thereof to COMPANY.

The undersigned INVENTOR each hereby grant to the COMPANY the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for the recordation of this document.

IN WITNESS WHEREOF, this Assignment has been executed by the undersigned individual on the date appearing by such individual's signature:

Invenior Name: Jonathan A. Bennett Date Date

When this Assignment is not filed concurrently with the patent application, the following identifying information may be added after execution:

U.S. Patent Application Serial No.: 16/287,999

Filing Date: 02/27/2019

Assignment – Worldwide

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned individual (referred to herein as the "INVENTOR") hereby assigns, transfers, and sets over to:

Apple Inc.

having the following address:

One Apple Parkway, Cupertino, CA 95014

(referred to herein as "COMPANY"), its successors, and assigns, the entire right, title, and interest, worldwide, in and to the invention known by the following title:

Pairing Devices by Proxy

for which the undersigned has/have executed an application for patent in the United States of America on or about this same day, together with said patent application, all corresponding provisionals, all divisionals, continuations, continuationsin-part, reissues, and extensions thereof, and all Letters Patent (domestic and foreign) which may be granted therefor. Such interest represents the entire ownership of said applications and Letters Patent when granted and is to be owned by COMPANY, its successors, and assigns, or their legal representatives, for the full and entire term for which such Letters Patent may be granted or extended, as fully and entirely as the same would have been enjoyed by the INVENTOR if this assignment had not been made. In addition, the undersigned INVENTOR hereby agrees:

- 1. To sign and execute any further documents which may be necessary or desirable, lawful, and proper in connection with the prosecution of all applications for patent(s) on the INVENTION in the United States, including without limitation said application and all divisions, continuations, continuations-in-part, amendments thereof, and all interference proceedings associated therewith, or otherwise necessary or desirable to secure the title thereto to COMPANY;
- 2. To execute all papers and documents and to perform all lawful acts which may be necessary in connection with claims to priority or otherwise under the International Convention for the Protection of Industrial Property or similar treaties or agreements;
- 3. To perform all lawful affirmative acts which may be necessary to obtain the grant of a valid and enforceable patent to COMPANY.

The undersigned INVENTOR each hereby authorizes and requests the Commissioner of Patents and Trademarks in the United States to issue any and all Letters Patent resulting from said application, including without limitation any division, continuation, continuation-in-part, or reissue thereof to COMPANY.

The undersigned INVENTOR each hereby grant to the COMPANY the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for the recordation of this document.

IN WITNESS WHEREOF, this Assignment has been executed by the undersigned individual on the date appearing by such individual's signature:

ame: Thomas Alsina

/ 3/2/2019 Date

When this Assignment is not filed concurrently with the patent application, the following identifying information may be added after execution:

U.S. Patent Application Serial No.: 16/287,999

Filing Date: 02/27/2019

PATENT REEL: 048660 FRAME: 0021

RECORDED: 03/21/2019