01/14/2019 505276678

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SANTOSH PAUL ABRAHAM	01/14/2018
MIGUEL GRIOT	01/07/2019
SEBASTIAN SPEICHER	12/13/2018
HARIS ZISIMOPOULOS	11/12/2018
SOO BUM LEE	12/06/2018

RECEIVING PARTY DATA

Name:	QUALCOMM INCORPORATED	
Street Address:	5775 MOREHOUSE DRIVE	
City:	SAN DIEGO	
State/Country:	CALIFORNIA	
Postal Code:	92121-1714	

PROPERTY NUMBERS Total: 2

Property Type	Number	
Application Number:	16128127	
Application Number:	62560097	

CORRESPONDENCE DATA

Fax Number: (202)857-6395

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: 202-857-6000

Email: patentdocket@arentfox.com, rebecca.golden@arentfox.com

Correspondent Name: ARENT FOX, LLP 1717 K STREET, NW Address Line 1:

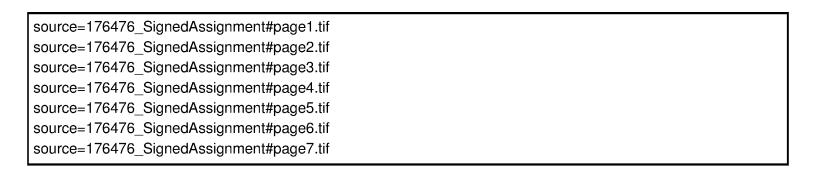
Address Line 4: WASHINGTON, D.C. 20006-5344

ATTORNEY DOCKET NUMBER:	030284.16713/176476
NAME OF SUBMITTER:	REBECCA GOLDEN
SIGNATURE:	/REBECCA GOLDEN/
DATE SIGNED:	01/14/2019

Total Attachments: 7

PATENT REEL: 047987 FRAME: 0553

505276678



ASSIGNMENT

WHEREAS, WE,

- 1. Santosh Paul ABRAHAM, a citizen of the United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of San Diego, California,
- 2. Miguel GRIOT, a citizen of Italy, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of La Jolla, California,
- 3. Sebastian SPEICHER, a citizen of Germany, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of Wallisellen, Switzerland,
- 4. Haris ZISIMOPOULOS, a citizen of Greece, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of London, Great Britain,
- 5. Soo Bum LEE, a citizen of the Republic of Korea, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of San Diego, California,

have conceived of one or more processes, methods, machines, articles of manufacture, designs, compositions of matter, inventions, discoveries or new or useful improvements relating to **CONTROL PLANE BASED SMALL DATA SERVICE** (collectively the "INVENTIONS") for which WE have executed and/or may execute one or more patent applications therefor; and

WHEREAS, Qualcomm Incorporated (hereinafter "ASSIGNEE"), a Delaware corporation, having a place of business at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A., desires to acquire or otherwise obtain the entire right, title, and interest in and to said INVENTIONS, including all inventions related thereto or thereof, all patent applications therefor, and all patents that have granted or may be granted hereafter thereon, including but not limited to those identified below.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, WE do hereby acknowledge that WE have sold, assigned, conveyed, and transferred, and by these presents do hereby sell, assign, convey, and transfer, unto ASSIGNEE, its successors, its legal representatives, and its assigns, the entire right, title, and interest throughout the world in and to said INVENTIONS, including all patent applications therefor that may have been filed or may be filed hereafter for said INVENTIONS in the United States, including but not limited to U.S. Application No(s). 16/128,127 filed September 11, 2018, Qualcomm Reference No. 176476, and all provisional applications relating thereto, together with U.S. Provisional Application No(s). 62/560,097, filed September 18, 2017, Qualcomm Reference No. 176476P1, (and do hereby authorize ASSIGNEE and its representative to hereafter add herein such application number(s) and/or filing date(s) when known), and all divisional applications, renewal applications, continuation applications, continuation-in-part applications, and design applications thereof, and all issued patents of the United States which may have granted or may be granted

hereafter thereon and all reissues, renewals, reexaminations, and extensions to any of the foregoing and all patents issuing thereon in the United States;

AND WE further do acknowledge and agree that WE have sold, assigned, conveyed, and transferred, and by these presents do hereby sell, assign, convey, and transfer, unto ASSIGNEE, its successors, its legal representatives, and its assigns, all rights of priority under International Conventions, Treaties, or Agreements, and the entire right, title, and interest throughout the world in said INVENTIONS, including all inventions related thereto or thereof, and all patent applications therefor that may have been filed or may be filed hereafter for said INVENTIONS in any foreign country, countries, or treaty/union organizations, and all divisional applications, renewal applications, continuation applications, continuation-in-part applications, patent of addition applications, confirmation applications, validation applications, utility model applications, and design applications thereof, and all issued patents which may have granted or may be granted hereafter for said INVENTIONS in any country or countries foreign to the United States, and all reissues, renewals, reexaminations, and extensions thereof;

AND WE DO HEREBY authorize and request the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications or registrations, to issue all patents for said INVENTIONS to said ASSIGNEE, its successors, its legal representatives and its assigns, in accordance with the terms of this instrument:

AND WE DO HEREBY sell, assign, transfer, and convey to said ASSIGNEE, its successors, its legal representatives, and its assigns all claims for damages and all remedies arising out of or relating to any violation(s) of any of the rights assigned hereby that have or may have accrued prior to the date of assignment to said ASSIGNEE, or may accrue hereafter, including, but not limited to the right to sue for, seek, obtain, collect, recover, and retain damages and any ongoing or prospective royalties to which WE may be entitled, or that WE may collect for any infringement or from any settlement or agreement related to any of said patents before or after issuance;

AND WE HEREBY covenant and agree that WE will communicate promptly to said ASSIGNEE, its successors, its legal representatives, and its assigns, any facts known to us respecting said INVENTIONS, and will testify in any legal proceeding, sign all lawful papers, execute all applications and certificates, make all rightful declarations and/or oaths, and provide all lawful assistance to said ASSIGNEE, its successors, its legal representatives and its assigns, to obtain and enforce patent protection for said INVENTIONS in all countries;

PATENT Qualcomm Ref. No. 176476 Page 3 of 3

whatsoev	er conflicting w	ith these presents.	ill not execute any writing or do any act
Done at 3	Ban Die 53 LOCATION	on 01/14/2018	Santosh Paul ABRAHAM
Done at	LOCATION	_, on	Miguel GRIOT
Done at _	LOCATION	_, on DATE	Sebastian SPEICHER
Done at _	LOCATION	_, on DATE	Haris ZISIMOPOULOS
Done at _	LOCATION	on	Soo Bum LEE

AND WE HEREBY covenant that WE will not execute any writing or do any act whatsoever conflicting with these presents.

Done at _	, on		
	LOCATION	DATE	Santosh Paul ABRAHAM
Done at ≦	AN DIEGO, CAS on LOCATION	OLOPIS DATE	Miguel GRIOT
Done at _	, on LOCATION	DATE	Sebastian SPEICHER
Done at _	, on LOCATION	DATE	Haris ZISIMOPOULOS
Done at _	, on	DATE	Soo Bum LEE

AND WE HEREBY covenant that WE will not execute any writing or do any act whatsoever conflicting with these presents.

Done at _		, on	
	LOCATION	DATE	Santosh Paul ABRAHAM
Done at _		, on DATE	
	LOCATION	DATE	Miguel GRIOT
Done at _	Udlizelle	on 12/13/18	S.Sp.
	LOCATION	DATE	Sebastian SPEICHER
Done at _		, on	
	LOCATION	DATE	Haris ZISIMOPOULOS
Dona at		on	
DONE AL_	LOCATION	, on	Soo Bum LEE

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Qualcomm Ref. No. 176476
Page 3 of 3

AND WE HEREBY covenant that WE will not execute any writing or do any act whatsoever conflicting with these presents.

Done at _	, on		
-	LOCATION	DATE	Santosh Paul ABRAHAM
Done at _	LOCATION	DATE	Miguel GRIOT
	LOCATION	DATE	Miguel Oxelo 1
Done at _	, on	DATE	Sebastian SPEICHER
Done at	LONDON, UL, on	f i	
	LOCATION	DATE'	— Haris ŽISIMOPOULOS
Done at	, on		
	LOCATION	DATE	Soo Bum LEE

PATENT Qualcomm Ref. No. 176476 Page 3 of 3

AND WE HEREBY covenant that WE will not execute any writing or do any act whatsoever conflicting with these presents.

Done at	, on		
LOC	ATION	DATE	Santosh Paul ABRAHAM
Done atLOC.	on, on	DATE	Miguel GRIOT
Done atLOC.	, on	DATE	Sebastian SPEICHER
Done atLOC.	on	DATE	Haris ZISIMOPOULOS
Done at John 7	Tiege, (A)	12/6/18 DATE	Soo Rum LEE

PATENT REEL: 047987 FRAME: 0561

RECORDED: 01/14/2019