505756358 11/04/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5803172

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
RAJESH KUMAR MISHRA	10/15/2019
BABAK JAFARIAN	08/07/2019
PRANEET CHIVATE	10/16/2019

RECEIVING PARTY DATA

Name:	PARALLEL WIRELESS, INC.
Street Address:	100 INNOVATIVE WAY, SUITE 3410
City:	NASHUA
State/Country:	NEW HAMPSHIRE
Postal Code:	03062

PROPERTY NUMBERS Total: 2

Property Type	Number	
Application Number:	16655225	
PCT Number:	US2019056623	

CORRESPONDENCE DATA

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.

Phone: 603-367-3607

Email: ip.inbox@parallelwireless.com **Correspondent Name:** PARALLEL WIRELESS, INC.

Address Line 1: 100 INNOVATIVE WAY, SUITE 3410
Address Line 4: NASHUA, NEW HAMPSHIRE 03062

ATTORNEY DOCKET NUMBER:	PWS-72570US01
NAME OF SUBMITTER:	BIJAN RAZZAGHI
SIGNATURE:	/bijan razzaghi/
DATE SIGNED:	11/04/2019

Total Attachments: 5

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PATENT 505756358 REEL: 050909 FRAME: 0221

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PATENT REEL: 050909 FRAME: 0222

ASSIGNMENT

(Patent Application)

We/I, the undersigned, have invented certain inventions and improvements disclosed in a PCT, utility (provisional or non-provisional) or design patent application entitled

"RADIO ACCESS NETWORK DYNAMIC FUNCTIONAL SPLITS,"

specified in the documents filed under the same title as U.S. Provisional App. No. 62/746,546 filed on October 16, 2018, and U.S. App. No. 16/655,225 filed on October 16, 2019 and PCT App. No. PCT/US19/56623 filed on October 16, 2019.

For one dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which we/I acknowledge, we/I:

- 1. Hereby assign, transfer, convey, and sell and have assigned, transferred, conveyed, and sold to <u>Parallel Wireless Inc.</u>, a corporation, having a principal place of business at <u>100 Innovative Way</u>, <u>Suite 3410</u>, <u>Nashua</u>, <u>NH</u>, <u>03062</u> ("Assignee"), the entire right, title, and interest in and to:
 - a. all intellectual property (including, without limitation, any innovation, information, invention, discovery, product, process, work or design) disclosed, embodied, shown, or claimed in the above-referenced patent application, implicitly or explicitly;
 - b. the above-referenced patent application, the right to claim priority to the above-referenced patent application, all applications based in whole or in part upon the above-referenced patent application, including, without limitation, all applications that are a provisional, non-provisional, design, divisional, continuation, continuation-in-part, registration, utility model, industrial design, national phase application in any country, reissue, renewal, substitute, extension, reexamination, post-grant review, inter partes review, supplemental examination or non-U.S. patent application or application for other rights based in whole or in part on the above-referenced patent application;
 - c. all patents (including, without limitation, all U.S. and non-U.S. patents, registrations, utility models, industrial designs, design patents, counterparts, continuations, continuations-in-part, divisionals, reissues, renewals, substitutes, extensions, national phase applications in any country, reexaminations, post-grant reviews, inter partes reviews, and supplemental examinations) that are granted or issued upon, or that claim priority to, any and all applications described in (b) of this paragraph or that disclose or claim intellectual property described in (a) of this paragraph, in whole or in part; and
 - d. all claims for damages by reason of past infringement of any rights under the applications or patents described in (a), (b) or (c) of this paragraph (including provisional rights to reasonable royalties pursuant to 35 U.S.C.

PATENT REEL: 050909 FRAME: 0223 § 154(d)) and the right to sue for and collect such damages and royalties for Assignee's own use.

- 2. Authorize and request the U.S. Patent and Trademark Office or any other U.S. or non-U.S. agency to issue to the Assignee any and all patent(s), or other rights or documents, resulting from the intellectual property, patent application(s) and patents described in paragraph 1 of this Assignment.
- 3. Agree to sign all papers and documents, including without limitation, applications, declarations, oaths and petitions, and, at the Assignee's expense, perform any other acts that are necessary in connection with prosecution of patent application(s) or intellectual property described in paragraph 1 of this Assignment and the enforcement of patent(s) or other rights resulting from such patent application(s) or intellectual property.
- 4. Agree that the terms, covenants, and conditions of this Assignment shall inure to the benefit of the Assignee, its successors, assigns and other legal representative, and shall be binding upon us/me, as well as our/my heirs, legal representatives, and assigns.
- 5. Promise and affirm that we/I have not entered, and will not enter, into any assignment, contract, or understanding that conflicts with this Assignment.

Signed on the dates indicated beside our/my signature.

6. Authorize counsel of record to insert above the application number and filing date of the above-described patent application when known.

Signature:

Babak Jafarian

Rojesh Mishra

Signature:

Rajesh Kumar Mishra

Date: 2019-10-15

Ramesh Annavajjala

Signature:

Praneet Chivate

Assignee Representative:

Signature: Date:

Date: 2019-11-04

§ 154(d)) and the right to sue for and collect such damages and royalties for Assignee's own use.

- 2. Authorize and request the U.S. Patent and Trademark Office or any other U.S. or non-U.S. agency to issue to the Assignee any and all patent(s), or other rights or documents, resulting from the intellectual property, patent application(s) and patents described in paragraph 1 of this Assignment.
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Signed on the dates indicated beside our/my signature.

6. Authorize counsel of record to insert above the application number and filing date of the above-described patent application when known.

> PATENT REEL: 050909 FRAME: 0225

ASSIGNMENT

(Patent Applications)

I, the undersigned, have invented or co-invented certain inventions and improvements disclosed in the PCT, utility (provisional or non-provisional) or design patent applications identified below, or identified in documents or oral disclosures provided to Parallel Wireless under the designated attorney docket number:

Attorney Docket Number	Application Number	Title	Date Filed
PWS-72513US00	62/631,595	Out-of-band Monitoring and Provisioning	February 16, 2018
PWS-72513US01	16/279,601	Out-of-Band Monitoring and Provisioning	February 19, 2019
PWS-72514US00	62/507,984	Mobile Base Station Drive Test Optimization	May 18, 2017
PWS-72514US01	15/984,318	Mobile Base Station Drive Test Optimization	May 18, 2018
PWS-72570US00	62/746,546	Radio Access Network Dynamic Functional Splits	October 16, 2018
PWS-72546US00	TO BE ADDED WHEN KNOWN	Radio Access Network Optimization Using Mobile Device Characteristics	TO BE ADDED WHEN KNOWN

For one dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which we/I acknowledge, we/I:

- 1. Hereby assign, transfer, convey, and sell and have assigned, transferred, conveyed, and sold to <u>Parallel Wireless Inc.</u>, a corporation, having a principal place of business at <u>100 Innovative Way</u>, <u>Suite 3410</u>, <u>Nashua</u>, <u>NH</u>, <u>03062</u> ("Assignee"), the entire right, title, and interest in and to:
 - a. all intellectual property (including, without limitation, any innovation, information, invention, discovery, product, process, work or design) disclosed, embodied, shown, or claimed in the above-referenced patent applications, implicitly or explicitly, or in any documents or oral disclosures provided to Parallel Wireless, Inc. prior to June 15, 2018 relating to the above-referenced inventions;
 - b. the above-referenced patent applications, the right to claim priority to the above-referenced patent applications, all applications based in whole or in part upon the above-referenced patent applications, including, without limitation, all applications that are a provisional, non-provisional, design, divisional, continuation, continuation-in-part, registration, utility model, industrial design, national phase application in any country, reissue, renewal, substitute, extension, reexamination, post-grant review, inter partes review, supplemental examination or non-U.S. patent application or application for other rights based in whole or in part on the above-referenced patent applications;

PWS-72570US01 U.S. App. No. 16/655,225 filed on October 16, 2019 PWS-72570WO01, App. No. PCT/US19/56623 filed on October 16, 2019 -BAR

- c. all patents (including, without limitation, all U.S. and non-U.S. patents, registrations, utility models, industrial designs, design patents, counterparts, continuations, continuations-in-part, divisionals, reissues, renewals, substitutes, extensions, national phase applications in any country, reexaminations, post-grant reviews, inter partes reviews, and supplemental examinations) that are granted or issued upon, or that claim priority to, any and all applications described in (b) of this paragraph or that disclose or claim intellectual property described in (a) of this paragraph, in whole or in part; and
- d. all claims for damages by reason of past infringement of any rights under the applications or patents described in (a), (b) or (c) of this paragraph (including provisional rights to reasonable royalties pursuant to 35 U.S.C. § 154(d)) and the right to sue for and collect such damages and royalties for Assignee's own use.
- 2. Authorize and request the U.S. Patent and Trademark Office or any other U.S. or non-U.S. agency to issue to the Assignee any and all patent(s), or other rights or documents, resulting from the intellectual property, patent application(s) and patents described in paragraph 1 of this Assignment.
- 3. Agree to sign all papers and documents, including without limitation, applications, declarations, oaths and petitions, and, at the Assignee's expense, perform any other acts that are necessary in connection with prosecution of patent application(s) or intellectual property described in paragraph 1 of this Assignment and the enforcement of patent(s) or other rights resulting from such patent application(s) or intellectual property.
- 4. Agree that the terms, covenants, and conditions of this Assignment shall inure to the benefit of the Assignee, its successors, assigns and other legal representative, and shall be binding upon us/me, as well as our/my heirs, legal representatives, and assigns.
- 5. Promise and affirm that we/I have not entered, and will not enter, into any assignment, contract, or understanding that conflicts with this Assignment.
- 6. Authorize counsel of record to insert above the application number(s) and filing date(s) of the above-described patent applications when known.

Signed on the date indicated beside my signature.		
Signature:	Date: _	08/07/19
Babak Jafarian		•
Parallel Wireless, Inc.		
Signature: Guider Par	Date:	August 7, 2019
Name:Michael Saji		
Title: Director, IP and Senior Corporate Couns	sel	

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