

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT6437022

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT
NATURE OF CONVEYANCE:	Corrective Assignment to correct the SPELLING ON THE THIRD INVENTOR'S NAME previously recorded on Reel 054415 Frame 0163. Assignor(s) hereby confirms the YANG, JIANJIANG.
CONVEYING PARTY DATA	
Name	Execution Date
SHEN SONG	11/22/2019
LONG CHEN	07/31/2019
JIANJIANG YANG	09/30/2019
RECEIVING PARTY DATA	
Name:	NOKIA SHANGHAI BELL CO., LTD.
Street Address:	388 NINGQIAO ROAD
City:	SHANGHAI
State/Country:	CHINA
Postal Code:	201206
Name:	NOKIA SOLUTIONS AND NETWORKS OY
Street Address:	KARAKAARI 7
City:	ESPOO
State/Country:	FINLAND
Postal Code:	02610
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	17043901
CORRESPONDENCE DATA	
Fax Number:	(703)668-8200
<i>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.</i>	
Phone:	703-668-8000
Email:	dcmalroom@hdp.com
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Address Line 1:	11730 PLAZA AMERICA DRIVE
Address Line 2:	SUITE 600
Address Line 4:	RESTON, VIRGINIA 20190
ATTORNEY DOCKET NUMBER:	29250H-000104-US-NP

NAME OF SUBMITTER:	GARY D. YACURA, REG. NO. 35,416
SIGNATURE:	/Gary D. Yacura/
DATE SIGNED:	12/08/2020
Total Attachments: 9 source=2020-12-08 NOR correction#page1.tif source=2020-12-08 NOR correction#page2.tif source=2020-12-08 NOR correction#page3.tif source=2020-12-08 NOR correction#page4.tif source=2020-12-08 NOR correction#page5.tif source=2020-12-08 NOR correction#page6.tif source=2020-12-08 NOR correction#page7.tif source=2020-12-08 NOR correction#page8.tif source=2020-12-08 NOR correction#page9.tif	



UNITED STATES PATENT AND TRADEMARK OFFICE

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

NOVEMBER 20, 2020

PTAS

HARNESS, DICKEY & PIERCE, P.L.C.
11730 PLAZA AMERICA DRIVE
SUITE 600
RESTON, VA 20190

506362537

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RECORDATION DATE: 11/19/2020

REEL/FRAME: 054415/0163
NUMBER OF PAGES: 7

BRIEF: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

DOCKET NUMBER: 29250H-000104-US-NP

ASSIGNOR:
SONG, SHEN

DOC DATE: 11/22/2019

ASSIGNOR:
CHEN, LONG

DOC DATE: 07/31/2019

ASSIGNOR:
ANG, JIANJIANG

DOC DATE: 09/30/2019

ASSIGNEE:
NOKIA SHANGHAI BELL CO., LTD.
388 NINGQIAO ROAD
SHANGHAI, CHINA 201206

ASSIGNEE:
NOKIA SOLUTIONS AND NETWORKS OY
KARAKAARI 7
ESPOO, FINLAND 02610

APPLICATION NUMBER: 17043901
PATENT NUMBER:
TITLE: WIRELESS DATA TRANSMISSION

FILING DATE: 09/30/2020
ISSUE DATE:

ASSIGNMENT RECORDATION BRANCH
PUBLIC RECORDS DIVISION

ASSIGNMENT - WORLDWIDE

ASSIGNOR(S)

Shen Song, Zhejiang, ChinaLong Chen, Zhejiang, ChinaJianjiang Yang, Zhejiang, China

ASSIGNEES

Nokia Shanghai Bell Co., Ltd.

388 Ningqiao Road, Shanghai, 201206, People's Republic of China

NOKIA SOLUTIONS AND NETWORKS OY

Karakaari 7 (as of 1 July 2019, formerly Karaportti 3), 02610 Espoo, Finland

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the ASSIGNOR(S) agree to assign and hereby assign, sell, transfer and set over to the ASSIGNEES and its successors, assigns and legal representatives, the entire right, title and interest, for United States of America and for all other countries in and to (1) the invention(s) identified by the following title or application number and filing date, and (2) any and all related inventions ("RELATED INVENTIONS" as defined below).

Application Title: WIRELESS DATA TRANSMISSION**Application number: WO PCT/CN2018/082137 Filing date: 2018-04-08**
(YYYY-MM-DD)

I/we, the ASSIGNOR(S), hereby authorize and request a representative of the ASSIGNEE to insert the application title, application number and filing date when known/received, after the execution of this document. The ASSIGNOR(S) hereby acknowledge and agree that the ASSIGNEE shall have the right to claim priority, directly or through another patent application, to the application identified above in any and all related patent applications subsequently filed in all jurisdictions.

I/we the ASSIGNOR(S) hereby acknowledge and agree that RELATED INVENTIONS include all national, regional and international patent applications filed and to be filed in any and all jurisdictions, that claim priority to the invention(s) identified by the above title or application number and filing date, said patent applications include all divisionals, continuations, re-issues, re-examinations, and continuations-in-part applications, and RELATED INVENTIONS include all rights and privileges in said patent applications and under any and all letters patent that may be granted in the United States of America and in all other countries resulting from said patent applications.

The ASSIGNOR(S) authorize the ASSIGNEES to make applications for such protection in its own name and maintain such protection in any and all countries including the United States of America, and to invoke and claim for any application for patent or other form of protection for said invention(s),

without further authorization from us, any and all benefits, including the rights of priority provided by any and all treaties, conventions, or agreements.

The ASSIGNOR(S) hereby consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any document which may be required in any country in proof of the right of the ASSIGNEES to apply for patent or other form of protection for said invention(s) and to claim the aforesaid benefit of the right of priority.

The ASSIGNOR(S) request that any and all patents for said invention(s) be issued to the ASSIGNEES, its/their successors, assigns and legal representatives, in the United States of America and in all other countries, or to such nominees as the ASSIGNEES may designate.

The ASSIGNOR(S) agree that, when requested, we shall, without charge to the ASSIGNEES sign all papers, and do all acts which may be necessary, desirable or convenient in connection with said applications, patents, or other forms of protection.

In witness whereof, each inventor/assignor please sign and date below:

Inventor (First Middle LAST)	Signature	Date (YYYY-MM-DD)
<u>Shen Song</u>	<u>[Signature]</u>	<u>2019-11-22</u>
<u>Long Chen</u>	<u> </u>	<u> </u>
<u>Jianjiang Yang</u>	<u> </u>	<u> </u>

This assignment should preferably be signed by the inventor(s) before (a) at least two witnesses who also sign here, or (b) a Notary Public if within the U.S.A.:

Witness Name (First Middle LAST)	Signature	Date (YYYY-MM-DD)
<u>Yu jing chen</u>	<u>[Signature]</u>	<u>2019-11-22</u>
<u>Rong Wang</u>	<u>[Signature]</u>	<u>2019-11-22</u>

without further authorization from us, any and all benefits, including the rights of priority provided by any and all treaties, conventions, or agreements.

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In witness whereof, each inventor/assignor please sign and date below:

Inventor (First Middle LAST)	Signature	Date (YYYY-MM-DD)
<u>Shen Song</u>	<u>Shen Song</u>	<u>2019/07/31</u>
<u>Long Chen</u>	<u>Long Chen</u>	<u>2019/07/31</u>
<u>Jianliang Yang</u>	<u>Jianliang Yang</u>	<u>2019/07/31</u>

This assignment should preferably be signed by the inventor(s) before (a) at least two witnesses who also sign here, or (b) a Notary Public if within the U.S.A.:

Witness Name (First Middle LAST)	Signature	Date (YYYY-MM-DD)
<u>Zhangyi Li</u>	<u>Zhangyi Li</u>	<u>2019/07/31</u>
<u>Qian Hai ya</u>	<u>Qian Hai ya</u>	<u>2019/07/31</u>

without further authorization from us, any and all benefits, including the rights of priority provided by any and all treaties, conventions, or agreements.

The ASSIGNOR(S) hereby consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any document which may be required in any country in proof of the right of the ASSIGNEES to apply for patent or other form of protection for said invention(s) and to claim the aforesaid benefit of the right of priority.

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In witness whereof, each inventor/assignor please sign and date below:

Inventor (First Middle LAST)	Signature	Date (YYYY-MM-DD)
<u>Shen Song</u>	_____	_____
<u>Long Chen</u>	_____	_____
<u>Jianjiang Yang</u>	<u>Tianjiang Yang</u>	<u>2019-9-30</u>

This assignment should preferably be signed by the inventor(s) before (a) at least two witnesses who also sign here, or (b) a Notary Public if within the U.S.A.:

Witness Name (First Middle LAST)	Signature	Date (YYYY-MM-DD)
<u>Kefeng Liao</u>	<u>Kefeng Liao</u>	<u>2019-9-30</u>
<u>Wei Yang</u>	<u>Wei Yang</u>	<u>2019-9-30</u>

The ASSIGNEES accept this assignment:

Nokia Shanghai Bell Co., Ltd.

Name Edward ZHANG

Signature Edward Zhang

Title EDGM

Date (YYYY-MM-DD) 2019.8.22

NOKIA SOLUTIONS AND NETWORKS OY

Name Yan Wang

Signature [Signature]

Title Manager, Patenting

Date (YYYY-MM-DD) DEC 19 2019

Name Jarmo J. Kemppainen

Signature [Signature]

Title Senior IPR Specialist

Date (YYYY-MM-DD) DEC 19 2019

ph
22



United States Patent and Trademark Office

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PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1

Stylesheet Version v1.2

SUBMISSION TYPE:	NEW ASSIGNMENT										
NATURE OF CONVEYANCE:	ASSIGNMENT										
CONVEYING PARTY DATA											
<table border="1"><thead><tr><th>Name</th><th>Execution Date</th></tr></thead><tbody><tr><td>SHEN SONG</td><td>11/22/2019</td></tr><tr><td>LONG CHEN</td><td>07/31/2019</td></tr><tr><td>JIANJIANG ANG</td><td>09/30/2019</td></tr></tbody></table>	Name	Execution Date	SHEN SONG	11/22/2019	LONG CHEN	07/31/2019	JIANJIANG ANG	09/30/2019			
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RECEIVING PARTY DATA											
<table border="1"><tr><td>Name:</td><td>NOKIA SHANGHAI BELL CO., LTD.</td></tr><tr><td>Street Address:</td><td>388 NINGQIAO ROAD</td></tr><tr><td>City:</td><td>SHANGHAI</td></tr><tr><td>State/Country:</td><td>CHINA</td></tr><tr><td>Postal Code:</td><td>201206</td></tr></table>	Name:	NOKIA SHANGHAI BELL CO., LTD.	Street Address:	388 NINGQIAO ROAD	City:	SHANGHAI	State/Country:	CHINA	Postal Code:	201206	
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Street Address:	KARAKAARI 7										
City:	ESPOO										
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PROPERTY NUMBERS Total: 1											
<table border="1"><thead><tr><th>Property Type</th><th>Number</th></tr></thead><tbody></tbody></table>	Property Type	Number									
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Application Number: 17043901**CORRESPONDENCE DATA****Fax Number:** (703)668-8200**Phone:** 703-668-8000**Email:** dcmailroom@hdp.com*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.***Correspondent Name:** HARNESS, DICKEY & PIERCE, P.L.C.**Address Line 1:** 11730 PLAZA AMERICA DRIVE**Address Line 2:** SUITE 600**Address Line 4:** RESTON, VIRGINIA 20190**ATTORNEY DOCKET
NUMBER:**

29250H-000104-US-NP

NAME OF SUBMITTER:

GARY D. YACURA, REG. NO. 35,416

Signature:

/Gary D. Yacura/

Date:

11/19/2020

Total Attachments: 5

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