PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6246341

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SAMULI TURTINEN	08/02/2019
CHUNLI WU	07/31/2019
BENOIST SEBIRE	08/01/2019

RECEIVING PARTY DATA

Name:	NOKIA TECHNOLOGIES OY
Street Address:	KARAKAARI 7
City:	ESPOO
State/Country:	FINLAND
Postal Code:	02610

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16764047

CORRESPONDENCE DATA

Fax Number: (704)444-1111

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: 7044441000

Email: usptomail@alston.com
Correspondent Name: ALSTON & BIRD LLP

Address Line 1: BANK OF AMERICA PLAZA, 101 SOUTH TRYON STREET

Address Line 2: SUITE 4000

Address Line 4: CHARLOTTE, NORTH CAROLINA 28280-4000

ATTORNEY DOCKET NUMBER:	042933/548292
NAME OF SUBMITTER:	GUY R. GOSNELL
SIGNATURE:	/Guy R. Gosnell/
DATE SIGNED:	08/12/2020

Total Attachments: 5

source=548292_Assignment#page1.tif source=548292_Assignment#page2.tif source=548292_Assignment#page3.tif

PATENT 506199602 REEL: 053468 FRAME: 0977

source=548292_Assignment#page4.tif source=548292_Assignment#page5.tif

PATENT REEL: 053468 FRAME: 0978

ASSIGNMENT - WORLDWIDE

ASSIG	VOR(S)
	Samuli Turtinen, li, Finland
	Chunli Wu, Beijing, China

ASSIGNEES

Nokia Shanghai Bell Co., Ltd.

Benoist Sebire, Tokyo, Japan

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 filling date, and (2) any and all related inventions ("RELATED INVENTIONS" as defined below).

Application Title: RANDOM ACCESS WITH BANDWIDTH PART SWITCH

Application number: WO PCT/CN2017/111143 Filing date: 2017-11-15

(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),

1/3

NSB v-26June19



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.

Inventor (First Middle LAST)	Signature	Date (YYYY-MM-DD)
Samuli Turtinen	Complete Com	200 -01-02
Chunli Wu	***************************************	
Benoist Sebire		

	ferably be signed by the inver a Notary Public if within the U.	ntor(s) before (a) at least two S.A.:
This assignment should pre	ferably be signed by the inver a Notary Public if within the U. Signature	ntor(s) before (a) at least two S.A.: Date (YYYY-MM-DD)
This assignment should pre witnesses who also sign here, or (b)	a Notary Public if within the U.	S.A.:

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 inve	entor/assignor please sign and date b	elow:
Inventor (First Middle LAST)	Signature	Date (YYYY-MM-DD)
Samuli Turtinen	***************************************	
Chunli Wu	Chum li Wn	2019-7-31
Benoist Sebire		
This assignment should prefe witnesses who also sign here, or (b) a	erably be signed by the inventor(s) a Notary Public if within the U.S.A.:	before (a) at least two
Witness Name (First Middle LAST)	Signature	Date (YYYY-MM-DD)
Ding Yuen Lei Du	Ding them Lei hu	7019-7-31 7019.7.37

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 inve	intor/assignor please sign and date b	elow:
Inventor (First Middle LAST)	Signature	Date (YYYY-MM-DD)
Samuli Turtinen		
Chunli Wu	· management of the commence o	·
Benoist Sebire	Alwayd	2019/8/1
This assignment should prefe witnesses who also sign here, or (b) a	erably be signed by the inventor(s) a Notary Public if within the U.S.A.:	before (a) at least two
Witness Name (First Middle LAST)	Signature	Date (YYYY-MM-DD)
_Bunehiko_0/1184 _Fumiko_1/65541	Tamble Colo Luite Dezirli	_2019/8/1 _2019/8/1

2/3

NC104226-WO-PCT

Name	hanghai Bell Co., Ltd. Edword ZHANG EDGM	Signature Du-	200
NOKIA: Name	SOLUTIONS AND NETWORKS OY	Signature	<u> </u>
	Manages, Palenting	Date (YYYY-MM-DD)	

3/3

NSB v-26June19

RECORDED: 08/12/2020