## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6925648

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
LIANG XING	02/01/2021
RICHA GUPTA	02/09/2021
SURESH KALYANASUNDARAM	03/16/2021

## **RECEIVING PARTY DATA**

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:	16652834

## **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.

**Email:** sue.sabo@nokia.com

Correspondent Name: NOKIA OF AMERICA CORPORATION

Address Line 1: 600-700 MOUNTAIN AVENUE

Address Line 4: MURRAY HILL, NEW JERSEY 07974-0636

ATTORNEY DOCKET NUMBER:	NC103326-US-PCT
NAME OF SUBMITTER:	SUE SABO
SIGNATURE:	/Sue Sabo/
DATE SIGNED:	09/20/2021

## **Total Attachments: 5**

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PATENT REEL: 057535 FRAME: 0521

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#### **ASSIGNMENT - WORLDWIDE**

#### ASSIGNOR(S)

Name	City	Country
Liang Xing	Hangzhou	China

(Full legal name, city and country of each inventor)

#### ASSIGNEE

## Nokia Solutions and Networks Oy Karakaari 7, 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 ASSIGNEE 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: A METHOD AND APPARATUS FOR REALIZING DYNAMIC POINT SELECTION

Application number: WO PCT/CN2017/107161 Filing date: 2017-10-20 (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 ASSIGNEE 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

1 / 2 v-25March2020

PATENT REEL: 057535 FRAME: 0522 the ASSIGNEE 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 ASSIGNEE, its/their successors, assigns and legal representatives, in the United States of America and in all other countries, or to such nominees as the ASSIGNEE may designate.

The ASSIGNOR(S) agree that, when requested, we shall, without charge to the ASSIGNEE 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.

The ASSIGNOR(S) and ASSIGNEE agree that this assignment may be executed by either handwritten signatures, including the exchange of scanned representations of handwritten signatures, or e-signatures. By using e-signature to sign this assignment, the ASSIGNOR(S) and ASSIGNEE acknowledge that execution in this manner creates a binding contract between the ASSIGNOR(S) and ASSIGNEE.

Each inventor/assignor please sign and date below:

Inventor (First Middle Last) Signature Date

Liang Xing Feb 1, 2021

The ASSIGNEE accepts this assignment:

Name: Per Möller Signature

Title: Authorized Signatory Date Jan 29, 2021

Name: Xin Liu Signature

Title: Authorized Signatory Date Jan 30, 2021

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#### **ASSIGNMENT - WORLDWIDE**

## ASSIGNOR(S)

Name	City	Country
Richa Gupta	Bangalore	India
Suresh Kalyanasundaram	Bangalore	India

(Full legal name, city and country of each inventor)

#### **ASSIGNEE**

## Nokia Solutions and Networks Oy Karakaari 7, 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 ASSIGNEE 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).

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(YYYY-MM-DD)

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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 ASSIGNEE 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.

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

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

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The ASSIGNOR(S) and ASSIGNEE agree that this assignment may be executed by either handwritten signatures, including the exchange of scanned representations of handwritten signatures, or e-signatures. By using e-signature to sign this assignment, the ASSIGNOR(S) and ASSIGNEE acknowledge that execution in this manner creates a binding contract between the ASSIGNOR(S) and ASSIGNEE.

Each inventi	or/assignor please sign a	date below:
Inventor (First Middle Last)	Signature	Date
Richa Gupta	K.	09-FEE-2021
Suresh Kalyanasundaram	-	
The AS	SIGNEE accepts this ass	signment
Reme:	Signature	
Title: Authorized Signatory	Date	
Name	Signature	
Title: Authorized Signatory	Date	

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 ASSIGNEE 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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Each inven	tor/assignor please sign and	I date below:
Inventor (First Middle Last)	Signature	Date
Richa Gupta		
Suresh Kalyanasundaram	( brear	March 16, 2021

The ASSIGN	IEE accepts this assignment:
Name: Rauni Kittilä	Signature
Title: Authorized Signatory	Date Mar 22, 2021
<sub>Name:</sub> Kalle Moilanen	Signature Palla Mollanari (Mar 22, 2021 28.17 GMT 12)
Title: Authorized Signatory	<sub>Date</sub> Mar 22, 2021