PATENT ASSIGNMENT COVER SHEET

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NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
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ZEXIAN LI	05/19/2017
LING YU	05/19/2017
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PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16498485

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NAME OF SUBMITTER:	SHARON HAGERMAN
SIGNATURE:	/Sharon Hagerman/
DATE SIGNED:	09/27/2019

Total Attachments: 5

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ASSIGNMENT

I/we, (The ASSIGNOR(S)):

Vinh Van Phan Zexian Li Ling Yu David Navratil

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, hereby assign to (hereafter referred to as The ASSIGNEE):

Nokia Solutions and Networks Oy Karaportti 3 02610 Espoo Finland

An invention entitled (invention Title):

IMPROVING COMMUNICATION RELIABILITY

The PATENT - X	RIGHTS referred to in this agreement are: a national Patent Application No. European Patent Application No. PCT/FI2017/050334	filed on filed on
for this inventi	on, executed by the ASSIGNOR(S) U.S. Patent Application Serial No. U.S. Patent No.	filed
The PATENT RIGHTS assigned under this agreement are: X U.S. Patent rights X worldwide Patent rights. In this case, the assignee shall have the right to claim the benefit of the filing date of any Patent Application identified above. X the full and exclusive right to the invention;		

The ASSIGNOR(S) do hereby assign the following to each ASSIGNEE; their successors and assigns:

an equal interest in and to the entire right, title and interest in and to the PATENT RIGHTS in the invention, all continuations, continuations-in-part, divisionals, re-issues, and re-examination patents and patent applications; and

the right to claim priority under 35 U.S.C. § 119, based on any earlier foreign applications for this invention.

As to all U.S. Patent Applications assigned under this Agreement, the ASSIGNOR(S) hereby authorize(s) and request(s) the Commissioner of Patents and Trademarks to issue all Letters Patent to the ASSIGNEE(S) as the ASSIGNEE(S) of an equal interest in the entire right, title and interest, for the sole use and enjoyment of said ASSIGNEE(S), their successors and assigns.

Further, the ASSIGNOR(S) agree(s) to communicate to said ASSIGNEE(S), or their representatives, any facts known to the ASSIGNOR(S) respecting said invention, and testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, substitute, renewal, reexamination and reissue applications, execute all necessary assignment papers to cause any and all Letters Patent to be issued to said ASSIGNEE(S), make all rightful oaths and generally do everything necessary or desirable to aid said ASSIGNEE(S), their successors and assigns, to obtain and enforced proper protection for said invention.

Further, I/We authorize the attorney of record to update this document to include Patent Office information as deemed necessary (i.e., filling date, serial number, etc.);

Each Inventor: Please sign and date below:

PATENT REEL: 050510 FRAME: 0940

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Rown Van Vint	03.05.2012
[Vinh Van Phan]	Date
(Same Milli	_ 03.05.2019
Witness Signature Printed Name	Date

PATENT REEL: 050510 FRAME: 0941

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[Ling Yu]

Witness Signature Printed Name KASS historia

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David Manifel	2.8, 2.0%
David Navratil]	Date
	3.5.2017
Witness Signature	Date

PATENT REEL: 050510 FRAME: 0944

RECORDED: 09/27/2019