PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5948172

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
HAJIME ZEMBUTSU	01/29/2020
TOSHIYUKI TAMURA	01/29/2020
NAOAKI SUZUKI	01/29/2020

RECEIVING PARTY DATA

Name:	NEC CORPORATION
Street Address:	7-1, SHIBA 5-CHOME, MINATO-KU
City:	TOKYO
State/Country:	JAPAN
Postal Code:	108-8001

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16636809

CORRESPONDENCE DATA

Fax Number: (202)293-7860

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: 2022937060

Email: rknight@sughrue.com, sughrue@sughrue.com

Correspondent Name: SUGHRUE MION, PLLC

Address Line 1: 2000 PENNSYLVANIA AVENUE, NW

Address Line 2: SUITE 900

Address Line 4: WASHINGTON, D.C. 20006

ATTORNEY DOCKET NUMBER:	Q252993	
NAME OF SUBMITTER:	CHRISTOPHER KNIGHT	
SIGNATURE:	/Christopher Knight/	
DATE SIGNED:	02/05/2020	
	This document serves as an Oath/Declaration (37 CFR 1.63).	

Total Attachments: 4

source=Q252993CombinedDecandAssignmentExecuted#page1.tif source=Q252993CombinedDecandAssignmentExecuted#page2.tif

 $source = Q252993 Combined Decand Assignment Executed \#page 3.tif\\ source = Q252993 Combined Decand Assignment Executed \#page 4.tif\\$

Docket No.: Only After Sept. 16, 2012

ASSIGNMENT WITH DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)

Whereas, I/we, the undersigned inventor(s) hereinafter called assignor(s), have invented certain improvements described in the application identified below; (the "invention") and

Whereas, NEC Corporation, (assignee), desires to acquire the entire and exclusive right, title, and interest in the application and invention, and to any patents that may be obtained therefor in the United States, in any U.S. territorial possessions, and in any and all foreign countries;

Now therefore, for valuable consideration, receipt whereof is hereby acknowledged,

I/we, the above named assignor(s), hereby sell, assign and transfer to the above named assignee, its successors and assigns, the entire and exclusive right, title and interest in the application and the invention disclosed therein for the United States, U.S. territorial possessions, and in any and all foreign countries, including all divisions, and continuations, and continuations-in-part thereof, and all Letters Patent of the United States that may be granted thereon, and all reissues and reexaminations, renewals, and substitutions thereof, and including the right to claim priority under 35 U.S.C. §119, and all rights for past infringement, under the International Convention, and under any other relevant International Treaties and Arrangements, and I/we request the Director of the U.S. Patent and Trademark Office to issue any Letters Patent granted upon the invention set forth in the application to the assignee, its successors and assigns; I/we will execute without further consideration all papers deemed necessary by the assignee, and generally perform all necessary acts to aid the assignee, its successors and assigns, to obtain and enforce proper protection for the invention in connection with the United States and foreign applications, including but not limited to all divisional, continuation, reissue and other applications for Letters Patent on the invention and execute all assignments thereof to the above named assignee its successors and assigns, when called upon to do so by the assignee; and I/we will communicate to the above named assignee or its representatives all facts known to the undersigned respecting the invention, whenever requested, testify in any legal proceedings in which any of the applications or patents may become involved, and do generally everything necessary to assist the above named assignee its successors or assigns to obtain patent protection for the invention in the United States and foreign countries.

(Legalization not required for recording but is prima facie evidence of execution under 35 U.S.C. §261)

As the below named inventor, I hereby declare that:

This assignment with declaration is

The attached application, or
directed to:

United States Application or PCT International Application Number PCT/JP2018/029614
filed on August 7, 2018 (Confirmation No._____).

CONTROL DEVICE, COMMUNICATION TERMINAL, CONTROL METHOD, NON-TRANSITORY COMPUTER READABLE MEDIUM, MME, AND BASE STATION

The above identified application was made or was authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I have reviewed and understand the contents of the application for which this assignment with declaration is being submitted, including the claims.

I am aware of the duty to disclose to the U.S Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR 1.56.

I hereby acknowledge that any willful false statement made in this assignment with declaration is punishable under 18 USC 1001 by fine or imprisonment of not more than five (5) years, or both.

Authorization To Permit Access To Application by Participating Office

☐ If checked, the undersigned hereby grants the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual property offices in which a foreign application claiming priority to the above-identified application is filed access to the above-identified patent application. See 37 CFR 1.14(c) and (h). This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, or other intellectual property office in which a foreign application claiming priority to the above-identified application is filed to have access to the application.

In accordance with 37 CFR 1.14(h)(3), access will be provided to a copy of the application-as-filed with respect to: 1) the above-identified patent application-as-filed, 2) any foreign application to which the above-identified application claims priority under 35 USC 119(a)-(d) if a copy of the foreign application that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the above-identified patent application, and 3) any U.S. application-as-filed from which benefit is sought in the above-identified patent application.

In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing the Authorization to Permit Access to Application by Participating Office.

NAME OF SOLE OR FIRST INVEN	TOR:	THE RESERVE OF THE PROPERTY OF		
Given Name			4:	
(first and middle [if any])	Hajime	Family Name or Surna	ame ZEMBUTS	U
Inventor's signature	Hajine ZEM	M20	Date January	29, 2020
Residence: Tokyo, Japan				*** <u></u>
Mailing Address: c/o NEC Corporati	ion, 7-1, Shiba 5-chome, Mina	to-ku, Tokyo 108-8001, Japai	Žį.	······································
NAME OF SECOND INVENTOR:	**************************************		~~ ~~~~~~~~~~~~~~~	
Given Name (first and middle [if any])	Toshiyuki	Family Name or Surns	ime TAMURA	
Inventor's signature	Tola		Date January	29, 2020
Residence: Tokyo, Japan				
Mailing Address: c/o NEC Corporati	on, 7-1, Shiba 5-chome, Mina	to-ku, Tokyo 108-8001, Japar	() ()	
NAME OF THIRD INVENTOR:				
Given Name (first and middle [if any])	Naoaki	Family Name or Surna	me SUZUKI	
Inventor's signature			Date	with the second
Residence: Tokyo, Japan				
Mailing Address: c/o NEC Corporation	on, 7-1, Shiba S-chome, Minat	o-ku, Tokyo 108-8001, Japan	1	
NAME OF FOURTH INVENTOR:				
Given Name (first and middle [if any])		Family Name or Surnam	e	
Inventor's signature			Date	
Residence:			j.	
Mailing Address:				
NAME OF FIFTH INVENTOR: .		44-4-4		
Given Name (first and middle [if any])		Family Name or Surname	ė.	
Inventor's signature			Date	
Residence:				
Mailing Address:	Y*************************************		STOCKS (Marie on a physical and a ph	***************************************

Docket No.: Only After Sept. 16, 2012

ASSIGNMENT WITH DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)

Whereas, I/we, the undersigned inventor(s) hereinafter called assignor(s), have invented certain improvements described in the application identified below; (the "invention") and

Whereas, NEC Corporation, (assignee), desires to acquire the entire and exclusive right, title, and interest in the application and invention, and to any patents that may be obtained therefor in the United States, in any U.S. territorial possessions, and in any and all foreign countries;

Now therefore, for valuable consideration, receipt whereof is hereby acknowledged.

I/we, the above named assignor(s), hereby sell, assign and transfer to the above named assignee, its successors and assigns, the entire and exclusive right, title and interest in the application and the invention disclosed therein for the United States, U.S. territorial possessions, and in any and all foreign countries, including all divisions, and continuations-in-part thereof, and all Letters Patent of the United States that may be granted thereon, and all reissues and reexaminations, renewals, and substitutions thereof, and including the right to claim priority under 35 U.S.C. §119, and all rights for past infringement, under the International Convention, and under any other relevant. International Treaties and Atrangements, and I/we request the Director of the U.S. Patent and Trademark Office to issue any Letters Patent granted upon the invention set forth in the application to the assignee, its successors and assigns; I/we will execute without further consideration all papers deemed necessary by the assignee, and generally perform all necessary acts to aid the assignee, its successors and assigns, to obtain and enforce proper protection for the invention in connection with the United States and foreign applications, including but not limited to all divisional, continuation, reissue and other applications for Letters Patent on the invention and execute all assignments thereof to the above named assignee its successors and assigns, when called upon to do so by the assignee; and I/we will communicate to the above named assignee or its representatives all facts known to the undersigned respecting the invention, whenever requested, testify in any logal proceedings in which any of the applications or patents may become involved, and do generally everything necessary to assist the above named assignee its successors or assigns to obtain patent protection for the invention in the United States and foreign countries.

(Legalization not required for recording but is prima facie evidence of execution under 35 U.S.C. §261)

	are that:
П	The attached application, or
Ø	United States Application or PCI International Application Number <u>PCT/JP2018/029614</u> filed on <u>August 7, 2018</u> (Confirmation No).
	П

CONTROL DEVICE, COMMUNICATION TERMINAL, CONTROL METHOD, NON-TRANSITORY COMPUTER READABLE MEDIUM, MME, AND BASE STATION

The above identified application was made or was authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application,

I have reviewed and understand the contents of the application for which this assignment with declaration is being submitted, including the claims.

I am aware of the duty to disclose to the U.S Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR 1.56.

I hereby acknowledge that any willful false statement made in this assignment with declaration is punishable under 18 USC 1001 by fine or imprisonment of not more than five (5) years, or both.

Authorization To Permit Access To Application by Participating Office

☐ If checked, the undersigned hereby grants the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual property offices in which a foreign application claiming priority to the above-identified application is filed access to the above-identified patent application. See 37 CFR 1.14(c) and (h). This box should not be checked if the applicant does not wish the EPO, IPO, KIPO, or other intellectual property office in which a foreign application claiming priority to the above-identified application is filed to have access to the application.

In accordance with 37 CFR 1.14(h)(3), access will be provided to a copy of the application-as-filed with respect to: 1) the above-identified patent application-as-filed, 2) any foreign application to which the above-identified application claims priority under 35 USC 119(a)-(d) if a copy of the foreign application that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the above-identified patent application, and 3) any U.S. application-as-filed from which benefit is sought in the above-identified patent application.

In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing the Authorization to Permit Access to Application by Participating Office.

NAME OF SOLE OR FIRST INVENTOR:	
Given Name	
(first and middle [if any]) Hajime	Family Name or Surname ZEMBUTSU
Inventor's signature	Date
Residence: Tokyo, Japan	
Mailing Address: c/o NEC Corporation, 7-1, Shiba 5-chome, Minate-	-ku, Tokyo 108-8001, Japan
NAME OF SECOND INVENTOR:	
Given Name	
(first and middle [if any]) Toshiyuki	Family Name or Surname TAMURA
Inventor's signature	Date
Residence: Tokyo, Japan	
	1. T. 1. 100 0001 Y
Mailing Address: c/o NEC Corporation, 7-1, Shiba 5-chome, Minato- NAME OF THIRD INVENTOR:	Ku, 10kyo 108-8001, Japan
Given Name	
(first and middle [if any]) Naoaki	Family Name or Surname SUZUKI
Inventor's signature Naoaki Sazuki	Date January 29, 2020
Residence: Tokyo, Japan	
	in Tri. 100 2001 X
Mailing Address: c/o NEC Corporation, 7-1, Shiba 5-chome, Minato- NAME OF FOURTH INVENTOR:	Ku, 10kyo 108-8001, Japan
Given Name	
(first and middle [if any])	Family Name or Sumame
Inventor's signature	Date
Residence:	
Mailing	
Address:	
NAME OF FIFTH INVENTOR:	
Given Name (first and middle [if any])	Family Name or Surname
Inventor's signature	Date
Residence:	
Mailing Address:	
