



UNITED STATES PATENT AND TRADEMARK OFFICE

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

JUNE 1, 2018

PTAS

ERICSSON INC.
6300 LEGACY DRIVE
M/S EVR 1-C-11
PLANO, TX 75024

504938724

UNITED STATES PATENT AND TRADEMARK OFFICE NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT RECORDATION BRANCH OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE ASSIGNMENT RECORDATION BRANCH AT 571-272-3350. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, MAIL STOP: ASSIGNMENT RECORDATION BRANCH, P.O. BOX 1450, ALEXANDRIA, VA 22313.

RECORDATION DATE: 05/31/2018

REEL/FRAME: 045950/0586
NUMBER OF PAGES: 7

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

DOCKET NUMBER: P71285-US2

ASSIGNOR:

DIACHINA, JOHN WALTER

DOC DATE: 02/08/2018

ASSIGNOR:

JOHANSSON, NICKLAS

DOC DATE: 02/09/2018

ASSIGNEE:

TELEFONAKTIEBOLAGET LM ERICSSON
(PUBL)
SE-164 83
STOCKHOLM, SWEDEN SE-164 83

APPLICATION NUMBER: 15886616

FILING DATE: 02/01/2018

PATENT NUMBER:

ISSUE DATE:

TITLE: NOTIFICATION OF ONGOING MULTILATERATION TIMING ADVANCE (MTA)
PROCEDURE TO A SERVING GPRS SUPPORT NODE (SGSN)

APPLICATION NUMBER: 62453843

FILING DATE: 02/02/2017

PATENT NUMBER:

ISSUE DATE:

TITLE: NOTIFICATION OF ONGOING MULTILATERATION TO THE SERVING GPRS
SUPPORT NODE

ASSIGNMENT RECORDATION BRANCH
PUBLIC RECORDS DIVISION

ASSIGNMENT

This Assignment is made by:

DIACHINA, John Walter

**505 Kristin Drive
27529 GARNER
NC
United States**

JOHANSSON, Nicklas

**Lovabacken 1
SE-590 45 BROKIND

Sweden**

(hereinafter referred to as "Assignor(s)") in favor, and for the benefit and behoof of, Telefonaktiebolaget LM Ericsson (publ), a corporation duly organized under and pursuant to the laws of Sweden and having its principal place of business at SE-164 83 Stockholm, Sweden (hereinafter referred to as "Assignee").

For good, sufficient and adequate consideration, the receipt of which is hereby acknowledged, the Assignor(s) have, as of the Effective Date, sold, assigned, transferred, and set over, and by these presents, and to the extent any transferable or assignable rights still remain with the inventor, do hereby sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns the entire right, title, and interest in and to the following inventions, application(s) for Letters Patent, and any and all Letters Patent or Patents in all countries and pursuant to all multilateral treaty organizations, including Sweden, the United States of America, the Patent Cooperation Treaty and European Patent Convention, that may be granted therefor and thereon, and in and to any and all divisions, continuations, continuations-in-part, conversions and utility models of said application(s), and reissues and extensions of said Letters Patent or Patents, the same to be held and enjoyed by the Assignee, for its use and behoof and the use and the behoof of its successors, legal representatives, and assigns, to the full end of the term or terms for which Letters Patent, Patents and Utility Models may be granted as fully and entirely as the same would have been held and enjoyed by the Assignor(s) had this sale and assignment not been made:

Notification of ongoing Multilateration to the Serving GPRS Support Node

including, but not limited to, the application(s) for Letters Patent and Utility Model filed in:

Country Code	Priority Application(s)	Filing Date(s)
US	15/886616	2/1/2018
PCT	PCT/IB2018/050650	2/2/2018
		- -

The Effective date is the earliest date of the above listed Filing Date(s).

Assignor(s) hereby authorize and request Assignee's Attorneys to insert the serial number and filing date of said application(s) for Letter Patent or Utility Model, when known. The assignment of the above mentioned rights includes a transfer of the whole right to use a priority (including priority according to any convention, multilateral agreement, bilateral

ASSIGNMENT

agreement and national law) of the above mentioned application(s) for Letter Patent and Utility Model in all countries and multilateral treaty organizations wherein no residual rights shall remain with the Assignor(s). Assignor(s) hereby request that said Letters Patent, Patent or Utility Model be issued to Assignee as the Assignee of said inventions, the Letters Patent, Patent or Utility Model to be issued for the sole use and behoof of the Assignee, its successors, legal representatives, and assigns. Assignee alone hereinafter has the entire disposal of the invention and possesses entire ownership to any domestic and foreign patents or utility models granted thereafter. The rights granted hereunder shall include all rights to institute legal actions, obtain remedies and recover and retain damages in respect to said Letters Patent, Patent or Utility Model.

The Assignor(s) and Assignee hereby understand and agree that with the execution of this Assignment, to the extent necessary or appropriate, national and/or regional applications may be filed by the Assignee as the applicant and on behalf of the assignor.

To the extent Assignee is entitled to receive the rights hereunder pursuant to this Assignment, each of the Assignor(s) hereby covenants and agrees to and with the Assignee, its successors, legal representatives, and assigns, that, at the time of the Effective Date, the Assignor(s) were the sole and lawful owners of the entire right, title, and interest in and to the inventions and application(s) for Letters Patent or Utility Models above-mentioned, and that the same are unencumbered, and that the Assignor(s) have good and full right and lawful authority to sell and convey the same in the manner herein set forth.

Further, and for the same consideration, the Assignor(s) hereby covenant(s) and agree(s) to and with the Assignee, its successors, legal representatives, and assigns that the Assignor(s) will, whenever counsel of the Assignee, or the counsel of its successors, legal representatives, and assigns, shall advise that any proceeding in connection with said inventions or said application(s) for Letters Patent or Utility Model, or any proceeding in connection with Letters Patent or Utility Model for said inventions, in any country and any multilateral treaty organization, including interference proceedings, is lawful and desirable, or that any division, continuation, continuation-in-part, conversion or Utility Model of any application(s) for Letters Patent or Utility Model, or any reissue or extension of any Letters Patent to be obtained thereon, is lawful and desirable, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement, and defense of Letters Patent or Utility Model for said inventions, without charge to Assignee, its successors, legal representatives, and assigns, but at the cost and expense of the Assignee, its successors, legal representatives, and assigns. If any of the Assignor(s) is prevented by any obstacles from signing said documents in person, this Assignment shall be valid as a Power of Attorney for the Assignee to sign these documents on behalf of any such Assignor(s) or, in the event of the death of the latter, the estate thereof.

This Assignment shall be governed by and construed under, and any dispute, controversy or claim related hereto shall be decided in accordance with, the laws of:

Sweden

without regard to the conflicts of laws provisions thereof. Any dispute, controversy or claim arising under, out of or relating to this Assignment and any subsequent amendments of this Assignment, including, without limitation, its formation, validity, binding effect, interpretation, performance, breach or termination, as well as non-contractual claims, shall be referred to

ASSIGNMENT

and finally determined by arbitration in accordance with the WIPO Arbitration Rules. The arbitral tribunal shall consist of a sole arbitrator. The place of arbitration shall be in the country of the inventor's residence. The language to be used in the arbitral proceedings shall be English.

No modifications shall be made to this Assignment unless in writing and signed by each of the Assignor(s) and Assignee. If any of the provisions of this Assignment shall be deemed invalid or unenforceable, then the entire Assignment shall be construed as if not containing the particular invalid or unenforceable provision or provisions, and the rights and obligations of Assignee and Assignor(s) shall be construed and enforced accordingly. Assignee's failure to exercise any option made available as a result hereof, shall not be construed as a waiver of such provisions, rights, or options, or affect the validity of this Assignment. Assignor covenants and agrees that it will not take any actions in violation of this Assignment.

Subsequent assignment from any of the assignors to the assignee purporting to convey the subject matter specified herein for a particular country, patent office, or jurisdiction shall not invalidate any provision of this assignment and any such subsequent assignment shall act as a further confirmation of the assignment herein.

Date 2/9/18 Signature on behalf of 
Assignee Roger S. Burleigh
Patent Unit Director

ASSIGNMENT

Title: Notification of ongoing Multilateration to the Serving GPRS Support Node

Date February 08, 2018 Signature of AssignorJohn Walter D'Amico
D'AMICO, John WalterDate February 08, 2018 Witnessed by

Name:

Address:

Robert Bourque
509 Kristin Drive
Garner NC 27529
USADate February 08, 2018 Witnessed by

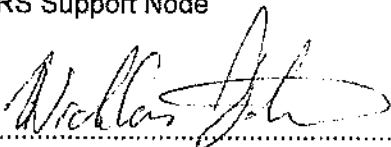
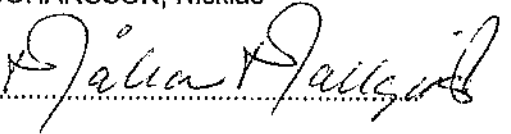
Name:

Address:

Deborah Bley Stone
Deborah Bley Stone
109 Southgate Dr.
Garner NC 27529
USA

ASSIGNMENT

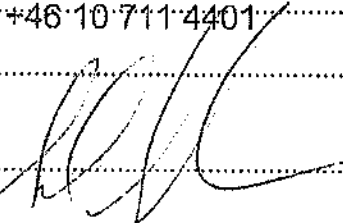
Title: Notification of ongoing Multilateration to the Serving GPRS Support Node

Date 2018-02-09 Signature of Assignor

 JOHANSSON, Nicklas
Date 2018-02-09 Witnessed by


Name:

Håkan Hallqvist

Address:

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 SE-58272 Linköping, SWEDEN
 Ph +46 10 711 4401
Date 2018-02-09 Witnessed by


Name:

Samuel Axelsson

Address:

 Kvinnebyvägen 230
 589 33 Linköping, Sweden
 Ph +46 738 09 30 49



UNITED STATES PATENT AND TRADEMARK OFFICE

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

JUNE 1, 2018

PTAS

ERICSSON INC.
6300 LEGACY DRIVE
M/S EVR 1-C-11
PLANO, TX 75024

504939802

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RECORDATION DATE: 05/31/2018

REEL/FRAME: 045956/0917
NUMBER OF PAGES: 7

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

DOCKET NUMBER: P71354-US2

ASSIGNOR:

DIACHINA, JOHN WALTER

DOC DATE: 02/08/2018

ASSIGNOR:

JOHANSSON, NICKLAS

DOC DATE: 02/09/2018

ASSIGNEE:

TELEFONAKTIEBOLAGET LM ERICSSON
(PUBL)
SE-164 83
STOCKHOLM, SWEDEN SE-164 83

APPLICATION NUMBER: 15886727

FILING DATE: 02/01/2018

PATENT NUMBER:

ISSUE DATE:

TITLE: NOTIFICATION OF DELIVERY OF A RRLP MULTILATERATION TIMNG ADVANCE
REQUEST MESSAGE TO A BASE STATION SUBSYSTEM (BSS)

APPLICATION NUMBER: 62456991

FILING DATE: 02/09/2017

PATENT NUMBER:

ISSUE DATE:

TITLE: NOTIFICATION OF DELIVERY OF A HIGHER LAYER MESSAGE TO THE BASE
STATION SYSTEM

ASSIGNMENT RECORDATION BRANCH
PUBLIC RECORDS DIVISION

ASSIGNMENT

This Assignment is made by:

DIACHINA, John Walter

**505 Kristin Drive
27529 GARNER
NC
United States**

JOHANSSON, Nicklas

**Lovabacken 1
SE-590 45 BROKIND

Sweden**

(hereinafter referred to as "Assignor(s)") in favor, and for the benefit and behoof of, Telefonaktiebolaget LM Ericsson (publ), a corporation duly organized under and pursuant to the laws of Sweden and having its principal place of business at SE-164 83 Stockholm, Sweden (hereinafter referred to as "Assignee").

For good, sufficient and adequate consideration, the receipt of which is hereby acknowledged, the Assignor(s) have, as of the Effective Date, sold, assigned, transferred, and set over, and by these presents, and to the extent any transferable or assignable rights still remain with the inventor, do hereby sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns the entire right, title, and interest in and to the following inventions, application(s) for Letters Patent, and any and all Letters Patent or Patents in all countries and pursuant to all multilateral treaty organizations, including Sweden, the United States of America, the Patent Cooperation Treaty and European Patent Convention, that may be granted therefor and thereon, and in and to any and all divisions, continuations, continuations-in-part, conversions and utility models of said application(s), and reissues and extensions of said Letters Patent or Patents, the same to be held and enjoyed by the Assignee, for its use and behoof and the use and the behoof of its successors, legal representatives, and assigns, to the full end of the term or terms for which Letters Patent, Patents and Utility Models may be granted as fully and entirely as the same would have been held and enjoyed by the Assignor(s) had this sale and assignment not been made:

Notification of delivery of a higher layer message to the Base Station System

including, but not limited to, the application(s) for Letters Patent and Utility Model filed in:

Country Code	Priority Application(s)	Filing Date(s)
US	15/886727	2/1/2018
US	62/456991	2/9/2017
WO	PCT/IB2018/050684	2/2/2018

The Effective date is the earliest date of the above listed Filing Date(s).

Assignor(s) hereby authorize and request Assignee's Attorneys to insert the serial number and filing date of said application(s) for Letter Patent or Utility Model, when known. The assignment of the above mentioned rights includes a transfer of the whole right to use

ASSIGNMENT

a priority (including priority according to any convention, multilateral agreement, bilateral agreement and national law) of the above mentioned application(s) for Letter Patent and Utility Model in all countries and multilateral treaty organizations wherein no residual rights shall remain with the Assignor(s). Assignor(s) hereby request that said Letters Patent, Patent or Utility Model be issued to Assignee as the Assignee of said inventions, the Letters Patent, Patent or Utility Model to be issued for the sole use and behoof of the Assignee, its successors, legal representatives, and assigns. Assignee alone hereinafter has the entire disposal of the invention and possesses entire ownership to any domestic and foreign patents or utility models granted thereafter. The rights granted hereunder shall include all rights to institute legal actions, obtain remedies and recover and retain damages in respect to said Letters Patent, Patent or Utility Model.

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Sweden

without regard to the conflicts of laws provisions thereof. Any dispute, controversy or claim arising under, out of or relating to this Assignment and any subsequent amendments of this Assignment, including, without limitation, its formation, validity, binding effect, interpretation,

ASSIGNMENT

performance, breach or termination, as well as non-contractual claims, shall be referred to and finally determined by arbitration in accordance with the WIPO Arbitration Rules. The arbitral tribunal shall consist of a sole arbitrator. The place of arbitration shall be in the country of the inventor's residence. The language to be used in the arbitral proceedings shall be English.

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Date 2/9/18

Signature on behalf of
Assignee


Roger S. Burleigh

Patent Unit Director

ASSIGNMENT

Title: Notification of delivery of a higher layer message to the Base Station System

Date: February 08, 2018 Signature of Assignor

John Walter DACHINA
DACHINA, John Walter

Date: February 08, 2018 Witnessed by

Name:

Address:

Robert Bourque
509 Kristin Drive
Garner NC 27529
USA

Date: February 08, 2018 Witnessed by

Name:

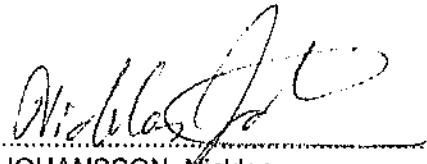
Address:

Deborah L. Blystone
Deborah L. Blystone
109 Southgate Dr.
Garner NC 27529
USA

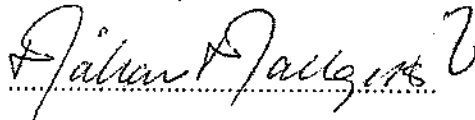
ASSIGNMENT

Title: Notification of delivery of a higher layer message to the Base Station System

Date 2018-02-09 Signature of Assignor


 JOHANSSON, Nicklas

Date 2018-02-09 Witnessed by



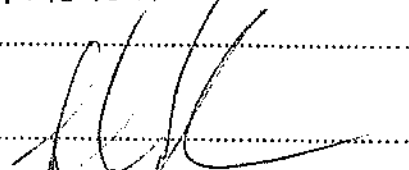
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Address:

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Date 2018-02-09 Witnessed by



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Samuel Axelsson

Address:

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