504445966 07/06/2017

# PATENT ASSIGNMENT COVER SHEET

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| SUBMISSION TYPE:      | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT     |

### **CONVEYING PARTY DATA**

| Name            | Execution Date |
|-----------------|----------------|
| GEORG MAYER     | 06/03/2011     |
| JARI MUTIKAINEN | 08/03/2011     |
| PETER LEIS      | 05/24/2011     |

## **RECEIVING PARTY DATA**

| Name:           | NOKIA TECHNOLOGIES OY |
|-----------------|-----------------------|
| Street Address: | KARAPORTTI 3          |
| City:           | ESPOO                 |
| State/Country:  | FINLAND               |
| Postal Code:    | 02610                 |

## **PROPERTY NUMBERS Total: 1**

| Property Type       | Number   |
|---------------------|----------|
| Application Number: | 15642193 |

## **CORRESPONDENCE DATA**

**Fax Number:** (858)314-1501

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:** mscarr@mintz.com

Correspondent Name: MINTZ LEVIN SAN DIEGO / PEDRO SUAREZ

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Address Line 2: SUITE 300

Address Line 4: SAN DIEGO, CALIFORNIA 92130

| ATTORNEY DOCKET NUMBER: 39700-905C01US   |            |
|--|------------|
| NAME OF SUBMITTER: PEDRO F. SUAREZ, ESQ. |            |
| SIGNATURE:                               | /PFS/      |
| DATE SIGNED:                             | 07/06/2017 |

# **Total Attachments: 8**

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PATENT 504445966 REEL: 042927 FRAME: 0456

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> PATENT REEL: 042927 FRAME: 0457

#### PATENT ASSIGNMENT

THIS Assignment is effective as of 31 December 2014 between

Assignor **NOKIA CORPORATION** of Karaportti 3, FI – 02610 Espoo, Finland, a corporation organized under the laws of Finland (hereinafter "Nokia Corporation") and Assignee **NOKIA TECHNOLOGIES OY** of Karaportti 3, FI – 02610 Espoo, Finland, a corporation organized under the laws of Finland (hereinafter "Nokia Technologies")

WHEREAS, Nokia Corporation is the owner of certain patents and patent applications, as more particularly described in <u>Attachment 1</u> hereto (hereinafter "the Patents"), incorporated herein by reference;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged and in accordance with that certain Business Purchase Agreement between Nokia Corporation and Nokia Technologies having an effective date of 31 December 2014 (hereinafter "Agreement"):

Nokia Corporation sells, assigns, transfers and conveys to Nokia Technologies, and its successors and assigns, all right, title, and interest in and to each of the Patents and patent applications listed in <a href="https://doi.org/10.1007/journal.com/linearing-not/files/burners/lin

This sale, assignment, transfer, and conveyance to Nokia Technologies, and its successors and assigns, is made subject to certain retained rights in favor of Nokia Corporation for the Patents and patent applications listed in <u>Attachment 1</u>, as are set forth in the Agreement.

IN WITNESS WHEREOF, the parties have caused their respective corporate names to be affixed hereto and this instrument to be signed by their duly authorized officers as of the day and year written below.

| NOKL                            | A CORPORATION  |  |
|---------------------------------|--|--|
| By:<br>Name:<br>Title:<br>Date: | Esa Niinimäki Authorized signatory  No XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX | Name: Anna Ckealer<br>Title: Legal Cansel<br>Date: 16 January 2015                       |
| NOKI/                           | A TECHNOLOGIES OY  |  |
| Name:<br>Title:<br>Date:        | Jyn Lassi<br>Vice President Legal & IP<br>16 Journal Cury 2015             | Name: Service OS KOK<br>Title: 18-2 OF FINANCE ON CORRECTION,<br>Date: 16 SCHMICKLY 2015 |

| 68575-US-PCT | United States Of America    | 08 Jun 2009 | 13/377139 |             |         |
|--------------|-----------------------------|-------------|-----------|-------------|---------|
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| 68523-US-NP  | United States Of<br>America | 09 Sep 2009 | 12/584664 | 16 Dec 2014 | 8912961 |
| 68507-US-NP  | United States Of<br>America | 15 Apr 2009 | 12/424232 |             |         |
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| 68495-US-NP  | United States Of<br>America | 10 Mar 2009 | 12/381402 | 24 Jul 2012 | 8226310 |
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| 68491-US-NP  | United States Of<br>America | 20 Mar 2009 | 12/408610 |             |         |
| 68475-US-NP  | United States Of<br>America | 12 Jun 2009 | 12/484036 | 21 May 2013 | 8447715 |
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| 68451-US-NP  | United States Of<br>America | 07 Sep 2010 | 12/877074 |             |         |
| 68448-US-PCT | United States Of<br>America | 07 Sep 2010 | 13/394783 |             |         |
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| 68425-US-CNT | United States Of<br>America | 16 Jan 2014 | 14/157114 |             |         |
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| 68406-US-NP  | United States Of<br>America | 22 May 2009 | 12/471315 |             |         |
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| 68383-US-NP         | United States Of<br>America | 17 Apr 2009 | 12/425630 | 10 Jul 2012 | 8220004 |
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| 68381-US-NP         | United States Of<br>America | 06 Apr 2009 | 12/384549 | 26 Aug 2014 | 8816460 |
| 68354-US-NP         | United States Of<br>America | 19 May 2010 | 12/783067 | 08 Jan 2013 | 8350735 |
| 68302-US-NP         | United States Of<br>America | 22 May 2009 | 12/470520 | 29 Oct 2013 | 8571273 |
| 68268-US-PCT        | United States Of<br>America | 08 Feb 2010 | 13/148884 |             |         |
| 68267-US-NP         | United States Of<br>America | 07 May 2009 | 12/437432 | 29 Oct 2013 | 8571519 |
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| 67861-US-PCT        | United States Of<br>America | 02 May 2002 | 10/476261 | 16 May 2006 | 7047030 |
| 67858-US-<br>PCT[2] | United States Of<br>America | 14 Dec 2009 | 13/148018 |             |         |
| 67857-US-NP         | United States Of<br>America | 26 Mar 2009 | 12/383705 | 30 Dec 2014 | 8924156 |
| 67838-US-NP         | United States Of<br>America | 30 Jun 2009 | 12/495098 |             |         |
| 67829-US-NP         | United States Of<br>America | 22 Apr 2009 | 12/428405 |             |         |
| 67826-US-NP         | United States Of<br>America | 22 Apr 2009 | 12/428407 |             |         |
| 67778-US-NP         | United States Of<br>America | 17 Jun 2010 | 12/817748 | 25 Nov 2014 | 8897816 |
| 67776-US-PCT        | United States Of<br>America | 21 Dec 2007 | 12/520541 |             |         |
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| 67726-US-PCT        | United States Of<br>America | 25 May 2010 | 13/378355 |             |         |
| 67698-US-PCT        | United States Of<br>America | 12 Jun 1998 | 09/242383 | 28 Dec 2004 | 6836879 |

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| 67697-US-PCT        | United States Of<br>America | 13 Sep 2006 | 11/531524 |             |   |
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| 67688-US-<br>CNT[2] | United States Of<br>America | 23 Jul 2007 | 11/781928 | 15 Dec 2009 | 7634069                                 |
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| 67665-US-PCT        | United States Of<br>America | 08 Sep 2006 | 10/559959 | 05 Aug 2014 | 8798606                                 |
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| 67649-US-PCT        | United States Of<br>America | 23 Jun 2004 | 10/561325 | 18 Jan 2011 | 7873863                                 |
| 67647-US-PCT        | United States Of America    | 28 Jul 2004 | 10/566142 | 27 Oct 2009 | 7610479                                 |
| 67643-US-PCT        | United States Of<br>America | 08 Aug 2006 | 12/063058 |             | *************************************** |
| 67642-US-CNT        | United States Of<br>America | 18 Oct 2006 | 11/550555 | 05 Mar 2013 | 8391892                                 |
| 67641-US-PCT        | United States Of<br>America | 07 Oct 2004 | 10/574728 | 08 Apr 2014 | 8695018                                 |
| 67628-US-PCT        | United States Of<br>America | 28 Oct 2004 | 10/595549 | 30 Mar 2010 | 7690007                                 |
| 67627-US-PCT        | United States Of<br>America | 01 Apr 2005 | 10/599574 | 17 Apr 2012 | 8161481                                 |
| 67625-US-PCT        | United States Of America    | 28 May 2003 | 10/515740 | 01 Feb 2011 | 7882352                                 |
| 67621-US-PCT        | United States Of<br>America | 28 May 2003 | 10/515739 | 19 Jun 2012 | 8205094                                 |
| 67619-US-PCT        | United States Of America    | 08 Aug 2006 | 12/063199 | 10 Apr 2012 | 8156350                                 |
| 67617-US-PCT        | United States Of<br>America | 08 Jun 2005 | 11/570281 |             |   |
| 67614-US-PCT        | United States Of America    | 08 Jun 2005 | 11/570276 | 17 Jul 2012 | 8225296                                 |
| 67611-US-PCT        | United States Of<br>America | 19 Nov 2004 | 10/595927 |             |   |
| 67597-US-PCT        | United States Of<br>America | 01 Mar 2006 | 11/817381 | 11 Dec 2012 | 8332856                                 |
| 67595-US-PCT        | United States Of<br>America | 07 Dec 2007 | 12/518105 | 23 Dec 2014 | 8918787                                 |
| 67593-US-PCT        | United States Of<br>America | 01 Mar 2006 | 11/817386 | 13 Mar 2012 | 8135938                                 |
| 67590-US-PCT        | United States Of<br>America | 01 Apr 2005 | 10/599580 | 04 Oct 2011 | 8032895                                 |
| 67575-US-NP         | United States Of America    | 30 Nov 2005 | 11/289993 | 08 Sep 2009 | 7587458                                 |
| 67570-US-NP         | United States Of<br>America | 17 Apr 2009 | 12/425904 |             |   |

RECORDED: 03/24/2015

PATENT REEL: 048980 FRAME: 0409

Docket No.: NC67858US-PCT

### **ASSIGNMENT**

| Title of<br>Invention | ACCESS CHANGE FOR RE-ROUTING A CONNECTION  |     |  |
|-----------------------|--|-----|--|
|                       | nment is directed to (check all that app   | • / |  |
| X U.S.                | Application No. <u>13/148018</u><br>n is a 371 National Stage of <u>PCT/FI20</u> |     |  |

As the below named inventor(s), I/we have invented certain improvements in the patent application for which I/we have filed an application for Letters Patent of the United States of America as identified above;

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

WHEREAS, NOKIA CORPORATION, a corporation organized under the laws of Finland, having its principal office in Espoo, Finland (hereinafter referred to as "ASSIGNEE"), is desirous of acquiring the entire right, title and interest in and under the said invention and the said application, and in and to any and all Letters Patent which shall be granted therefore in the United States of America and in any and all foreign countries:

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I/we have sold and do hereby sell, assign, transfer and convey unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and to said invention and application, and in all divisionals, reissues, substitutions, continuations, continuation-in-part and, in any and all Letters Patents of the United States of America and all foreign countries or reissues, reexaminations, or extensions thereof which may be granted therefore or thereon, for the full end of the term for which said Letters Patent may be granted, together with the right to claim the priority of said application in all foreign countries in accordance with the International Convention, the same to be held and enjoyed by said ASSIGNEE, its successors and assigns, as fully and entirely as the same would have been held and enjoyed by me if this assignment and sale had not been made.

I/WE ALSO HEREBY authorize and request the Commissioner of Patents and Trademarks to issue all patents for said invention, or patents resulting therefrom to the said ASSIGNEE of my/our entire right, title and interest.

I/WE FURTHER HEREBY sell and assign to said ASSIGNEE, its successors, assigns and legal representatives the full and exclusive rights, title and interest to the invention disclosed in said application throughout the world, including, without limitation, the right to file applications and obtain patents, utility models, industrial models and designs for said invention in its own name throughout the world including all rights of priority, all rights to publish cautionary notices reserving ownership of said invention and all rights to register said invention in appropriate registries. I/we further agree to execute any and all powers of attorney, applications, assignments, declarations, affidavits, and any other papers in connection therewith necessary to perfect such rights, title and interest in ASSIGNEE, its successors, assigns and legal representatives.

I/WE HEREBY covenant that I/we have not and I/we will not execute any agreement in conflict herewith.

Page 1

Docket No.: NC67858US-PCT

### **ASSIGNMENT**

I/WE HEREBY further covenant, and agree to bind my/our heirs, legal representatives, and assigns, promptly to communicate to said ASSIGNEE or its representatives any facts known to me relating to said invention, to testify in any interference or legal proceedings involving said invention, to execute any additional papers which may be requested to confirm the right of the assignee, its representatives, successors, or assigns to secure patent or similar protection for the said invention in all countries and to vest in the assignee complete title to the said invention and Letters Patent, without further compensation, but at the expense of said ASSIGNEE, its successors, assigns, and other legal representatives.

IN WITNESS WHEREOF, I/we have hereunto set my/our hand and seal on the date indicated below.

| Inventor: Georg MAYER  | Date: <u>©3                                   </u> |   |
|--|--|---|
| Signature: <u>Umo ////</u> ///                               | Residence: Vienna, AT                              |   |
| Witness Signature: Judices                                   |  |   |
| Witness Signature: <u>- ひしんかいみ</u><br>Printed Name: <u> </u> | ASS Date: 03 74NE 201-                             | 4 |

Docket No.: NC67658US-PCT

# ASSIGNMENT

IN WITNESS WHEREOF, I/we have hereunto set my/our hand and seal on the date indicated below.

| inventor: Jari MUTIKAINEN          | Date: AUG 3, 2011      |
|------------------------------------|------------------------|
| Signature: 4                       | Residence: Lepsämä, Fl |
| Witness Signature: <u>433</u> /435 |                        |
| Printed Name: 613A MUCK ANCH       | Date: (AUG 0 / 2011    |

Docket No.: NC67858US-PCT

# **ASSIGNMENT**

IN WITNESS WHEREOF, I/we have hereunto set my/our hand and seal on the date indicated below.

| Inventor: Peter LEIS       | Date: 24.05.2011        |
|----------------------------|-------------------------|
| Signature: 124 RM          | Residence: Penzberg, DE |
| Witness Signature:         |                         |
| Printed Name: MARTIN OETTL | Date: 24,05 2011        |

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