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PATENT ASSIGNMENT COVER SHEET

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| SUBMISSION TYPE: | | NEW ASSIGNMENT | | | | | |
|--|------------|--------------------------------|---|------------|-----------|--|--|
| NATURE OF CONVEYANCE: | | ASSIGNMENT | | | | | |
| CONVEYING PARTY | DATA | | | | | | |
| | | | Name Execution D | | | | |
| NOKIA CORPORATIC | N | | | | /2014 | | |
| RECEIVING PARTY D | ΑΤΑ | | | | | | |
| Name: | NOKIA | NOKIA TECHNOLOGIES OY | | | | | |
| Street Address: | KARAI | PORT | TI 3 | | | | |
| City: | ESPO | ESPOO | | | | | |
| State/Country: | FINLA | FINLAND | | | | | |
| Postal Code: | 02610 | 02610 | | | | | |
| | | | | | | | |
| PROPERTY NUMBER | S Total: 1 | | | | | | |
| Property Type | | | Number | | | | |
| Application Number: | | 1522 | 6155 | | | | |
| CORRESPONDENCE | DATA | | | | | | |
| Fax Number: | | (704) | 444-1111 | | | | |
| | | | e-mail address first; if that is hat is unsuccessful, it will be | | l be sent | | |
| - | | | 44-1000 | | | | |
| Email: grace | | .rippy@alston.com | | | | | |
| • | | R. GOSNELL | | | | | |
| | | | | | | | |
| | | SOUTH TRYON STREET, SUITE 4000 | | | | | |
| Address Line 4: | | CHAI | RLOTTE, NORTH CAROLINA 2 | 28280-4000 | | | |
| ATTORNEY DOCKET NUMBER: | | 042933/481669 | | | | | |
| NAME OF SUBMITTER: | | GUY R. GOSNELL | | | | | |
| BIGNATURE: | | /Guy R. Gosnell/ | | | | | |
| DATE SIGNED: | | 08/08/2016 | | | | | |
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| Total Attachments: 3 | | | | | | | |
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PATENT ASSIGNMENT

THIS Assignment is effective as of 31 December 2014 between

Assignor NOKIA CORPORATION of Karaporti 3, FI – 02610 Espoo, Finland, a corporation organized under the laws of Finland (hereinafter "Nokia Corporation") and Assignce NOKIA TECHNOLOGIES OY of Karaporti 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 <u>Attachment 1</u> hereto and all continuations, divisions, and reissues arising from or related to the Patents.

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.

NOKIA CORPORATION By: Name: Esa Niinimäki CHER Name: Amara Authorized signatory Title: Title: Legal Cansel Date: 14 2015 Date: Januaro 2015 16 Januar NOKIA TECHNOLOGIES OY By: Name: Name: Sa Mi USKOK Title: Beaut up Finance and appenditions Title: lyri Cassi Date: Date: Vice President, Legal & IP James ary 16 January 2015

PATENT REEL: 035226 FNAME: 0136 REEL: 039360 FRAME: 0079

Attachment 1

| Case reference | Country | Filing Date | Filing Number | Grant | Grant Number |
|-----------------------|---------------|------------------|------------------|---------------|-----------------|
| 73081-US-NP | United States | 21 Dec 2007 | 11/963451 | | |
| | Of America | | | | |
| 73079-US- | United States | 06 Aug 2007 | 11/834584 | | |
| NP[4] | Of America | | | | |
| 73078-US- | United States | 12 Jun 2007 | 11/818074 | 06 Sep 2011 | 8015183 |
| NP[2] | Of America | | | | |
| 73077-US-NP | United States | 12 Feb 2007 | 11/705368 | | |
| | Of America | 11.00 200 | 11, 00000 | | |
| 73075-US-NP | United States | 18 Mar 2004 | 10/803831 | 11 Oct 2011 | 8037078 |
| /30/3-05-141 | Of America | 10 14141 2004 | 10/00/00/1 | 11 000 2011 | |
| 73074-US-NP | United States | 04 Aug 2003 | 10/633915 | 06 Oct 2009 | 7599988 |
| +3074-00-141 | Of America | 04 Aug 2003 | 10/033713 | 00 001 2000 | 1377700 |
| 72995-US-CNT | United States | 02 Oct 2006 | 11/537815 | 29 Mar 2011 | 7917464 |
| 72990-00-0NI | | 02 001 2000 | 11/33/613 | 29 19141 2011 | //// |
| 70005 110 | Of America | 20.0++ 2007 | 11/929725 | 15 Mar 2011 | 7908280 |
| 72995-US- | United States | 30 Oct 2007 | 11/929/25 | 13 Iviai 2011 | /908280 |
| <u>CNT[6]</u> | Of America | | 110000000 | | |
| 72995-US- | United States | 30 Oct 2007 | 11/929738 | | |
| CNT[8] | Of America | | | | 750(501 |
| 72995-US-DIV | United States | 17 Nov 2004 | 10/990588 | 29 Sep 2009 | 7596581 |
| | Of America | | | | |
| 72995-US- | United States | 17 Nov 2004 | 10/991168 | 26 May 2009 | 7539693 |
| DIV[2] | Of America | | | | |
| 72995-US- | United States | 07 Jun 2005 | 11/147033 | 31 May 2011 | 7953732 |
| DIV[3] | Of America | | | | |
| 72995-US-NP | United States | 22 Feb 2001 | 09/791533 | 03 Oct 2006 | 7117199 |
| | Of America | | | | |
| 04163-US-NP | United States | 22 Sep 1999 | 09/400770 | 28 Oct 2003 | 6639989 |
| | Of America | | | | |
| 04300-US-NP | United States | 12 Nov 1999 | 09/439803 | 09 Nov 2004 | 6816974 |
| | Of America | | | | |
| 04313-US-NP | United States | 09 Jul 1999 | 09/350607 | 11 Jun 2002 | 6404423 |
| | Of America | | | | |
| 02338-US-PCT | United States | 06 Oct 1994 | 08/624643 | 27 Jul 1999 | 5930712 |
| | Of America | | | | |
| 06241-US-PCT | United States | 19 Jun 1995 | 08/602741 | 19 May 1998 | 5754541 |
| | Of America | | | | |
| 06497-US-NP | United States | 11 Sep 1995 | 08/526462 | 03 Feb 1998 | 5715279 |
| 00177 00 111 | Of America | 11 000 1570 | 00/020102 | | |
| 07115-US- | United States | 04 Mar 1996 | 08/602773 | 03 Aug 1999 | 5933423 |
| CNT[2] | Of America | 0-1 14121 1 2 20 | 00/002775 | 05 1146 1777 | |
| 07119-US-PCT | United States | 10 May 1995 | 08/737447 | 21 Dec 1999 | 6005857 |
| 07119-0 9- FCI | Of America | 10 May 1995 | | 21 1000 1777 | 3000007 |
| 07163-US-PCT | | 19 Feb 1996 | 08/894428 | 19 Dec 2000 | 6163546 |
| 0/103-03-rC1 | United States | 13 100 1330 | 00/074440 | 191900 2000 | 0100070 |
| 07966 110 100 | Of America | 00 1-1 1007 | 00/674250 | 27 Oct 1998 | 5828650 |
| 07256-US-NP | United States | 02 Jul 1996 | 08/674350 | 27 001 1998 | 3020030 |
| | Of America | <u> </u> | <u>L</u> | | <u> </u> |

PATENT REEL: 035228 FNAME: 0137 REEL: 039360 FRAME: 0080

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| 07315-US-PCT | United States Of America | 17 Jan 1997 | 08/913869 | 15 Aug 2000 | 6104918 |
|--------------|-----------------------------|-------------|-----------|-------------|---------|
| 07342-US-NP | United States Of America | 22 Oct 1996 | 08/736047 | 17 Aug 1999 | 5940371 |
| 04162-US-NP | United States Of America | 23 Nov 1999 | 09/448004 | 14 Dec 2004 | 6831894 |
| 04186-US-NP | United States Of America | 06 Mar 2001 | 09/799476 | 03 Dec 2002 | 6490180 |
| 07639-US-PCT | United States Of America | 22 Apr 1998 | 09/403458 | 23 Jul 2002 | 6424843 |
| 07928-US-NP | United States Of America | 19 Oct 1998 | 09/174989 | 29 Jan 2002 | 6343131 |
| 18732-US-NP | United States Of America | 23 May 2001 | 09/864017 | 15 Jul 2014 | 8781123 |

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