

## PATENT ASSIGNMENT

Electronic Version v1.1  
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT										
NATURE OF CONVEYANCE:	ASSIGNMENT										
CONVEYING PARTY DATA											
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Timo Petteri Karttaavi</td> <td>03/21/2012</td> </tr> <tr> <td>Ilkka-Hermann Hakala</td> <td>04/25/2012</td> </tr> <tr> <td>Mauri Honkanen</td> <td>03/11/2012</td> </tr> <tr> <td>Aarno Tapio Parssinen</td> <td>05/07/2011</td> </tr> </tbody> </table>		Name	Execution Date	Timo Petteri Karttaavi	03/21/2012	Ilkka-Hermann Hakala	04/25/2012	Mauri Honkanen	03/11/2012	Aarno Tapio Parssinen	05/07/2011
Name	Execution Date										
Timo Petteri Karttaavi	03/21/2012										
Ilkka-Hermann Hakala	04/25/2012										
Mauri Honkanen	03/11/2012										
Aarno Tapio Parssinen	05/07/2011										
RECEIVING PARTY DATA											
<table border="1"> <tr> <td>Name:</td> <td>Nokia Corporation</td> </tr> <tr> <td>Street Address:</td> <td>Keilalahdentie 4</td> </tr> <tr> <td>City:</td> <td>Espoo</td> </tr> <tr> <td>State/Country:</td> <td>FINLAND</td> </tr> <tr> <td>Postal Code:</td> <td>FI-02150</td> </tr> </table>		Name:	Nokia Corporation	Street Address:	Keilalahdentie 4	City:	Espoo	State/Country:	FINLAND	Postal Code:	FI-02150
Name:	Nokia Corporation										
Street Address:	Keilalahdentie 4										
City:	Espoo										
State/Country:	FINLAND										
Postal Code:	FI-02150										
PROPERTY NUMBERS Total: 1											
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13381319</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13381319						
Property Type	Number										
Application Number:	13381319										
CORRESPONDENCE DATA											
<p>Fax Number: (704)444-1111</p> <p>Phone: 704-444-1000</p> <p>Email: patent-mail@alston.com</p> <p><i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i></p> <p>Correspondent Name: Guy R. Gosnell</p> <p>Address Line 1: 101 S. Tryon Street, Suite 4000</p> <p>Address Line 2: Alston &amp; Bird LLP</p> <p>Address Line 4: Charlotte, NORTH CAROLINA 28280-4000</p>											
ATTORNEY DOCKET NUMBER:	042933/413793										
NAME OF SUBMITTER:	Guy R. Gosnell										

CH \$40.00 13381319

Total Attachments: 5

source=ASSIGN413793#page1.tif

source=ASSIGN413793#page2.tif

source=ASSIGN413793#page3.tif

source=ASSIGN413793#page4.tif

source=ASSIGN413793#page5.tif

**PATENT**

**REEL: 028212 FRAME: 0041**

## ASSIGNMENT - WORLDWIDE

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor has sold and assigned, and by these presents hereby sells and assigns, unto

**Nokia Corporation  
Keilalahdentie 4  
FI-02150 Espoo  
FINLAND**

its successors and assigns, the entire right, title and interest, so far as concerns the United States and the Territories and Possessions thereof and all foreign countries in and to the invention in

### "APPARATUS AND METHODS"

as set forth in this United States Patent Application

- ☐ executed concurrently herewith
- ☐ executed on
- ☒ Application No. 13/381,319; filed December 28, 2011
- ☒ Application is a National Phase Entry of International Application No. PCT/EP2009/004728, filed June 30, 2009, all applications listed above being hereinafter referred to as the "application(s)";

said application for United States Letters Patent, including all divisional, renewal, substitute, continuation, nonprovisionals, continuation-in-parts, and Convention applications based in whole or in part upon said inventions or upon said applications, and any and all Letters Patent and reissues, reexaminations, and extensions of Letters Patent granted for said inventions or upon said applications and every priority right that is or may be predicated upon or arise from said inventions, said applications, and said Letters Patent; said Assignee being hereby authorized to file patent applications in any or all countries on any or all said inventions in the name of the undersigned or in the name of said Assignee or otherwise as said Assignee may deem advisable, under the International Convention or otherwise; the Commissioner of Patents and Trademarks of the United States of America being hereby authorized to issue or transfer all said Letters Patent to said Assignee in accordance herewith; this assignment being under covenant, not only that full power to make the same is had by the undersigned, but also that such assigned right is not encumbered by any grant, license, or other right theretofore given, and that the undersigned will do all acts reasonably serving to ensure that the said inventions, patent applications and Letters Patent shall be held and enjoyed by said Assignee as fully and entirely as the same could have been held and enjoyed by the undersigned if this assignment had not been made, and particularly to execute and deliver to said Assignee all lawful documents including petitions, specifications, oaths, assignments, invention disclaimers, declarations, and lawful affidavits in form and substance which may be requested by said Assignee, to furnish said Assignee with all facts relating to said inventions or the history thereof and any and all documents, photographs,

models, samples or other physical exhibits which may embody said inventions, and to testify in any proceedings relating to said inventions, patent applications, and/or Letters Patent.

This Assignment is deemed to be effective at least as early as June 30, 2009 (the earliest priority date).

The undersigned hereby grant(s) an authorized representative of Assignee the power to insert in this Assignment any further identification that may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

MARCH 21, 2012

Date



Timo Petteri Karttaavi

The undersigned hereby grant(s) an authorized representative of Assignee the power to insert in this Assignment any further identification that may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

25.4.2012  
Date

  
Ilkka-Hermann Hakala


The undersigned hereby grant(s) an authorized representative of Assignee the power to insert in this Assignment any further identification that may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

May 11th, 2012  
Date

Mauri Honkanen  
Mauri Honkanen

The undersigned hereby grant(s) an authorized representative of Assignee the power to insert in this Assignment any further identification that may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

07/05/2012  
Date

  
Aarno Tapio Parssinen

Attorney Docket No. 042933/413793

Client Ref. NC69705US