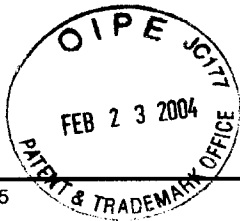


2123104



03-01-2004

Form PTO-1595  
(Rev. 10/02)  
OMB No. 0651-0027 (exp. 6/30/2005)



U.S. DEPARTMENT OF COMMERCE  
U.S. Patent and Trademark Office  
0172.42109X00

102681380

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

## 1. Name of conveying party(ies):

AHVONEN, KATI  
GATEVA, RALITSA  
HONKASALO, ZHI-CHUN  
HURTTA, TUIJA  
KIIKILA, MIKA  
KORHONEN, AKI T.  
LI, ZHENG  
MAKINEN, MARKKU T.  
PIKKUSAARI, ANTTI  
TUULOS, MARTTI

## 2. Name and address of receiving party(ies)

Name: **NOKIA CORPORATION**

Street Address: **Keilalahdentie 4, FIN-02150, Espoo,  
Finland**

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

## 3. Nature of conveyance:

☒ Assignment  
☐ Security Agreement  
☐ Other \_\_\_\_\_

☐ Merger  
☐ Change of Name

Additional name(s) & address(es) attached? ☐ Yes ☒ NoExecution Date: **Feb. 12, 3, 9, 4, 4, 4, 3, 3, 3, 2004.**

## 4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: \_\_\_\_\_.

A. Patent Application No.(s)

**10/670,221 filed 9/26/03**

B. Patent Registration No.(s)

Additional number(s) attached ☐ Yes ☒ No

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Name: **Antonelli, Terry, Stout & Kraus, LLP**

Internal Address:

**1300 North Seventeenth Street  
Suite 1800  
Arlington, VA 22209  
USA**

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

6. Total number of applications and patents involved **11**7. Total fee (37 CFR 3.41)..... **\$40.00**☒ Enclosed☐ Authorized to be charged to deposit account

## 8. Deposit account number:

**01-2135**

(Attach duplicate copy of this page if paying by deposit account)

**DO NOT USE THIS SPACE**

## 9. Statement and signature.

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.*

**Hung H. Bui# 40,415**

Name of Person Signing

Signature

**02/23/2004**

Date

Total number of pages including cover sheet, attachments, and document: **14**

Mail documents to be recorded with required cover sheet information to:  
Commissioner of Patent & Trademarks, Box Assignments  
Washington, D.C. 20231

02/26/2004 SSITHIB1 00000040 10670221

02 FC:8021

40.00 OP

**PATENT**  
**REEL: 015010 FRAME: 0305**

# ASSIGNMENT

ATTY. DOCKET NO.:0172.42109X00

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- AND WHEREAS**  
**Nokia Corporation**  
**Keilalahdentie 4**  
**FIN-02150 Espoo, Finland**

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IN TESTIMONY WHEREOF this assignment is executed by ASSIGNOR.

201	FULL NAME OF SOLE OR FIRST NAMED INVENTOR <b>Kati AHVONEN</b>	INVENTOR'S SIGNATURE 	DATE <b>12.2.2004</b>
202	FULL NAME OF SECOND JOINT INVENTOR <b>Ralitsa GATEVA</b>	INVENTOR'S SIGNATURE	DATE
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**Keilalahdentie 4**  
**FIN-02150 Espoo, Finland**

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202	FULL NAME OF SECOND JOINT INVENTOR <b>Ralitsa GATEVA</b>	INVENTOR'S SIGNATURE <i>[Signature]</i>	DATE <i>Feb. 03, 2004</i>
203	FULL NAME OF THIRD JOINT INVENTOR <b>Zhi-Chun HONKASALO</b>	INVENTOR'S SIGNATURE	DATE
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Nokia Corporation  
Keilalahdentie 4  
FIN-02150 Espoo, Finland

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204	FULL NAME OF FOURTH JOINT INVENTOR Tuija HURTA	INVENTOR'S SIGNATURE	DATE
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- AND WHEREAS **Nokia Corporation**  
**Keilalahdentie 4**  
**FIN-02150 Espoo, Finland**

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204	FULL NAME OF FOURTH JOINT INVENTOR <b>Tuija HURTA HURTTA</b> 4.2.2004 <i>TH</i>	INVENTOR'S SIGNATURE <i>Tuija Hurta</i>	DATE <b>4.2.2004</b>
205	FULL NAME OF FIFTH JOINT INVENTOR <b>Mika KHKILÄ</b>	INVENTOR'S SIGNATURE	DATE
206	FULL NAME OF SIXTH JOINT INVENTOR <b>Aki T. KORHONEN</b>	INVENTOR'S SIGNATURE <i>Aki T. Korhonen</i>	DATE <b>4.2.2004</b>
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208	FULL NAME OF EIGHTH JOINT INVENTOR <b>Markku T. MÄKINEN</b>	INVENTOR'S SIGNATURE	DATE
209	FULL NAME OF NINTH JOINT INVENTOR <b>Antti PIKKUSAARI</b>	INVENTOR'S SIGNATURE	DATE
210	FULL NAME OF NINTH JOINT INVENTOR <b>Martti TUULOS</b>	INVENTOR'S SIGNATURE	DATE

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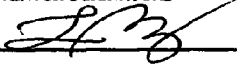
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✓ 207	FULL NAME OF SEVENTH JOINT INVENTOR <b>Zheng Li</b>	INVENTOR'S SIGNATURE 	DATE <b>3/2/2004</b>



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**FIN-02150 Espoo, Finland**

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NOW, WITNESSETH that for good and valuable consideration, the receipt whereof is hereby acknowledged, ASSIGNOR hereby assigns, sells, and transfers to ASSIGNEE, its assigns and legal representatives, the entire and exclusive right, title and interest in and to said invention and application, including any and all divisions and continuations thereof, and any and all Letters Patent which may be granted therefor, including any and all renewals, reissues, reexaminations and extensions thereof, and in and to any and all priority and/or convention rights or benefits accruing or to accrue with respect to the filing or securing of patents in the United States and/or any countries foreign thereto, SAID ASSIGNEE, its assigns and legal representatives to have, hold, exercise, and enjoy said invention and application, including any and all divisions and continuations thereof, and any and all Letters Patent which may be granted therefor, including any and all renewals, reissues, reexaminations and extensions thereof, with all the rights, powers, privileges and advantages in anywise arising from or appertaining thereto, for and during the term or terms of any and all such Letters Patent when granted, including any and all renewals, reissues, reexaminations and extensions thereof, for the use and benefit of ASSIGNEE and its assigns and legal representatives, in as ample and beneficial a manner to all intents and purposes as the ASSIGNOR might or could have held and enjoyed the same, if the assignment had not been made.

AND ASSIGNOR hereby agrees to execute all papers that may be necessary to file applications in the United States and foreign countries for said invention and to assign the same to said ASSIGNEE, its assigns and legal representatives and to execute any other papers that may be needed in connection with filing said applications and securing Letters Patents thereon.

AND ASSIGNOR authorizes and requests the Commissioner of Patents and Trademarks to issue a Letters Patent on said application, and on any and all divisions and continuations thereof, to ASSIGNEE, its assigns and legal representatives, in accordance herewith.

The undersigned hereby grant(s) the law firm of Antonelli, Terry, Stout, Kraus, LLP the power to insert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN TESTIMONY WHEREOF this assignment is executed by ASSIGNOR.

201	FULL NAME OF SOLE OR FIRST NAMED INVENTOR <b>Kati AHVONEN</b>	INVENTOR'S SIGNATURE	DATE
202	FULL NAME OF SECOND JOINT INVENTOR <b>Ralitsa GATEVA</b>	INVENTOR'S SIGNATURE	DATE
203	FULL NAME OF THIRD JOINT INVENTOR <b>Zhi-Chun HONKASALO</b>	INVENTOR'S SIGNATURE	DATE
204	FULL NAME OF FOURTH JOINT INVENTOR <b>Tuija HURTA</b>	INVENTOR'S SIGNATURE	DATE
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206	FULL NAME OF SIXTH JOINT INVENTOR <b>Aki T. KORHONEN</b>	INVENTOR'S SIGNATURE	DATE
207	FULL NAME OF SEVENTH JOINT INVENTOR <b>Zheng LI</b>	INVENTOR'S SIGNATURE	DATE

208	FULL NAME OF EIGHTH JOINT INVENTOR Markku T. MÄKINEN	INVENTOR'S SIGNATURE <i>Markku T. Mäkinen</i>	DATE 03 Feb 2004
209	FULL NAME OF NINTH JOINT INVENTOR Antti PIKKUSAARI	INVENTOR'S SIGNATURE	DATE
210	FULL NAME OF NINTH JOINT INVENTOR Matti TUULOS	INVENTOR'S SIGNATURE	DATE

# ASSIGNMENT

ATTY. DOCKET NO.:0172.42109X00

WHEREAS the below named inventor (if only one inventor is named below) or inventors (if plural inventors are named below) hereinafter referred to as the ASSIGNOR invented a certain improvement relating to

## ENHANCED QOS CONTROL

☐ for which an application for Letters Patent to be filed in the United States Patent and Trademark Office was executed on even date.

☒ for which U.S. Application Serial No. **10/670,221** for Letters Patent was filed in the U.S. Patent and Trademark Office on **September 26, 2003**.

☐ for which an International Application was filed on \_\_\_\_\_ as \_\_\_\_\_, designating the United States.

**AND WHEREAS**  
**Nokia Corporation**  
**Keilalahdentie 4**  
**FIN-02150 Espoo, Finland**

hereinafter referred to as the ASSIGNEE, is desirous of acquiring the entire right, title, and interest in and to said invention and application, including any and all divisions and continuations thereof, and any and all Letters Patent which may be granted thereon, including any and all renewals, reissues, reexaminations and extensions thereof.

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210	FULL NAME OF NINTH JOINT INVENTOR Martti TUULOS	INVENTOR'S SIGNATURE	DATE

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Nokia Corporation  
Keilalahdentie 4  
FIN-02150 Espoo, Finland

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210	FULL NAME OF NINTH JOINT INVENTOR Matti TUULOS	INVENTOR'S SIGNATURE 	DATE 3rd Feb. 2004