AO 120 (Rev. 08/10)

TO:	REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK
Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	

In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court for the Eastern District of Texas, Marshall Division on the following

☐ Trademarks or ☑ Patents. (☐ the patent action involves 35 U.S.C. § 292.):

DOCKET NO.	DATE FILED	U.S. DISTRICT COURT
2:24-cv-00133	2/23/2024	for the Eastern District of Texas, Marshall Division

PLAINTIFF	DEFENDANT
Avant Location Technologies LLC	Samsung Electronics Co., Ltd. an Samsung Electronics America, Inc.

	PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1	8,738040	5/27/2014	Avant Location Technologies LLC
2	10,009,720	6/26/2018	Avant Location Technologies LLC
3	9,042,910	5/26/2015	Avant Location Technologies LLC
4	8,934,922	1/13/2015	Avant Location Technologies LLC
5	9,119,030	8/25/2015	Avant Location Technologies LLC

In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY ☐ Amendment ☐ Answer ☐ Cross Bill ☐ Other Pleading	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1		
2		
3		
4		
5		

In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT

CLERK	(BY) DEPUTY CLERK	DATE

Copy 1—Upon initiation of action, mail this copy to Director Copy 3—Upon termination of action, mail this copy to Director
Copy 2—Upon filing document adding patent(s), mail this copy to Director Copy 4—Case file copy

UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO.	: 8,738,040 B2
APPLICATION NO.	: 12/294641
DATED	: May 27, 2014
INVENTOR(S)	: Carlos Alberto Pérez Lafuente

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In the Claims

Claim 1, Column 20, Lines 64 and 65, "(iii) when the mobile station remains into a special area," should be -- "(iii) when the mobile station remains in a special area, --

Signed and Sealed this
Twenty-ninth Day of March, 2022

Drew Hirshfeld
Performing the Functions and Duties of the
Under Secretary of Commerce for Intellectual Property and
Director of the United States Patent and Trademark Office

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of: Pérez Lafuente, Carlos Alberto	Art Unit: 2643
U.S. Patent No. 8,738,040 Issue Date: May 27, 2014	Examiner: Chang, Jean
	Confirmation No: 1871
Application No: 12/294,641	
Filed: April 12, 2010	Atty. Docket No: 122358-348870
	Customer No: 26694
For: METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECIAL AREA	PATENT & TRADEMARK OFFICE

REQUEST FOR CERTIFICATE OF CORRECTION PURSUANT TO 37 C.F.R. § 1.322

Attention: Certificate of Correction Branch
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Commissioner:

Upon reviewing the above-identified patent, Patentee noted a typographical error which should be corrected.

In the claims:

- Claim 1, Column 20, lines 64 and 65, "(iii) when the mobile station remains into a special area," should be -- "(iii) when the mobile station remains in a special area, --

It is respectfully requested that a Certificate of Correction be issued by the Patent and Trademark Office due to error that appear in the printed patent as a result of a mistake of a clerical, typographical, or minor character, which was not the fault of the Patent and Trademark Office. A Certificate of Correction form is attached.

The amount of $160.00 to cover the statutory fee for such Certificate of Correction is being paid concurrently; please charge any deficiency in the fee, and credit any overpayment, to Deposit Account 22-0261.

Applicant's undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 344-4000. All correspondence should continue to be directed to our address given below.

Dated: February 23, 2022

Respectfully submitted,

Electronic signature: /Jeffri A. Kaminski/
Jeffri A. Kaminski
Registration No.: 42,709
VENABLE LLP
P.O. Box 34385
Washington, DC 20043-9998
(202) 344-4000
(202) 344-8300 (Fax)
Attorney/Agent For Applicant

UNITED STATES
PATENT AND TRADEMARK OFFICE

P.O. Box 1450
Alexandria, VA 22313 - 1450
www.uspto.gov

ELECTRONIC PAYMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
12/294,641	02/23/2022 03:08:40 PM ET	122358-348870

Title of Invention

METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECIAL AREA

Application Information

APPLICATION TYPE	Utility - U.S. National Stage under 35 USC 371	PATENT #	8738040
CONFIRMATION #	1871	FILED BY	Hyebin Hwang
PATENT CENTER #	60544066	AUTHORIZED BY	jeffri kaminski
CUSTOMER #	26694	FILING DATE	04/12/2010
INTL. APPLICATION #	-	INTL. FILING DATE	-
CORRESPONDENCE ADDRESS	-	FIRST NAMED INVENTOR	Carlos Alberto P¿rez Laiuente

Payment Information

PAYMENT METHOD	PAYMENT TRANSACTION ID	PAYMENT AUTHORIZED BY
CARD / 1981	E20222MF09394292	Hyebin Hwang

PRE-AUTHORIZED ACCOUNT	PRE-AUTHORIZED CATEGORY
220261	37 CFR 1.492 (National application filing, search, and examination fees); 37 CFR 1.20 (Post Issuance fees); 37 CFR 1.19 (Document supply fees); 37 CFR 1.21 (Miscellaneous fees and charges); 37 CFR 1.17 (Patent application and reexamination processing fees)

FEE CODE	DESCRIPTION	ITEM PRICE($)	QUANTITY	ITEM TOTAL($)
2811	CERTIFICATE OF CORRECTION	160.00	1	160.00
			TOTAL AMOUNT:	$160.00

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES
PATENT AND TRADEMARK OFFICE

P.O. Box 1450
Alexandria, VA 22313 - 1450
www.uspto.gov

ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
12/294,641	**02/23/2022 03:08:40 PM ET**	**122358-348870**

Title of Invention

METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECIAL AREA

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CONFIRMATION #	1871	FILED BY	Hyebin Hwang
PATENT CENTER #	60544066	FILING DATE	04/12/2010
CUSTOMER #	26694	FIRST NAMED INVENTOR	Carlos Alberto P¿rez Lafuente
INTL. APPLICATION #	-	INTL. FILING DATE	-
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	jeffri kaminski

Documents

TOTAL DOCUMENTS: 2

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
348870_F_Request_for_Certificate_of_Correction.pdf	2	Request for Certificate of Correction	20 KB
348870_F_Certificate_of_Correction.pdf	1	Request for Certificate of Correction	18 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
348870_F_Request_for_Certific	B3BB1CC0F49A6CEC3FA79B1AE029EB64FF641A730AB18E76

ate_of_Correction.pdf	B9A996FEFB57073042B83B191DDBAE332D08DE9BDC91D8B5D80FD9EC2E084706F8390BBF7DDDBFB5
348870_F_Certificate_of_Correction.pdf	8578EB90CEFB8A13576370937B5AC6C25F35F86EB5BAF5F2D58306926779F57365C8CBE7EB2C4A6488FF5779566321BF43E16CC0734EAE91612B8BFC487E497E

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/44 (09-07)
Approved for use through 01/31/2020. OMB 0651-0033
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.
(Also Form PTO-1050)

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO.	:	8,738,040 B2
APPLICATION NO.	:	12/294,641
ISSUE DATE	:	May 27, 2014
INVENTOR(S)	:	Pérez Lafuente, Carlos Alberto

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In the claims:

- Claim 1, Column 20, lines 64 and 65, "(iii) when the mobile station remains into a special area," should be -- "(iii) when the mobile station remains in a special area, --

MAILING ADDRESS OF SENDER (Please do not use Customer Number below):
Jeffri A. Kaminski
VENABLE LLP
P.O. Box 34385
Washington, DC 20043-9998

VENABLE® LLP

575 SEVENTH STREET NW WASHINGTON, DC 20004
T 202.344.4000 F 202.344.8300 www.Venable.com

OPAP
JUL 2 4 2014
PATENT & TRADEMARK OFFICE

Jeffri A. Kaminski
202.344.4048

jakaminski@venable.com

July 24, 2014

Commissioner for Patents
Publication Division
Attn: Kimberly Terrell
P.O. Box 1450
Alexandria, VA 22313-1450

VIA COURIER

Re: U.S. Application No. 12/294,641 - Carlos A. Perez Lafuente
For: METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECIAL AREA
Filing Date: April 12, 2010
Issue Date: May 27, 2014
Attorney Docket No.: 122358-348870

Dear Ms. Terrell:

Thank you for your prompt attention to the USPTO error in the Letters Patent for U.S. Patent No. 8,738,040. As discussed in our telephone conversation, the last page of the enclosed Letters Patent was assembled in the incorrect order. For your convenience, we have flagged the affected page for your inspection. We greatly appreciate the USPTO's effort in correcting this error at no additional fee.

If you have questions or concerns, please do not hesitate to contact us.

Very truly yours,

Jeffri A. Kaminski

JAK/pdc
Enclosure

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/294,641	05/27/2014	8738040	122358-348870	1871

26694 7590 05/07/2014

VENABLE LLP
P.O. BOX 34385
WASHINGTON, DC 20043-9998

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment is 1057 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site http://pair.uspto.gov for additional applicants):

Carlos Alberto P¿rez Lafuente, Madrid, SPAIN;

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The USA offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to encourage and facilitate business investment. To learn more about why the USA is the best country in the world to develop technology, manufacture products, and grow your business, visit SelectUSA.gov.

PART B -FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571) 273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

VENABLE LLP
P.O. Box 34385
Washington, DC 20043-9998

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

Jeffri A. Kaminski	(Depositor's name)
	(Signature)
April 11, 2014	(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/294,641	03/27/2007	Carlos A. Perez Lafuente	122358-348870	1871

TITLE OF INVENTION: METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECIAL AREA

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$480.00			$480.00	04/27/2014

EXAMINER	ART UNIT	CLASS-SUBCLASS
J. Chang	2617	

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

[ ] Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

[X] "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 Venable LLP
2 Jeffri A. Kaminski
3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE: AFIRMA CONSULTING & TECHNOLOGIES, S.L.

(B) RESIDENCE: (CITY and STATE OR COUNTRY): Madrid, Spain

Please check the appropriate assignee category or categories (will not be printed on the patent) : [ ] Individual [X] Corporation or other private group entity [ ] Government

4a. The following fee(s) are submitted:

[X] Issue Fee
[ ] Publication Fee (No small entity discount permitted)
[ ] Advance Order - # of Copies _____

4b. Payment of Fee(s): (**Please first reapply any previously paid issue fee shown above**)

[ ] A check is enclosed.
[ ] Payment by credit card. Form PTO-2038 is attached.
[X] The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number 22-0261 (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)

[ ] Applicant certifying micro entity status. See 37 CFR 1.29. NOTE: Absent a valid certification of Micro Entity Status (see form PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

[ ] Applicant asserts small entity status. See 37 CFR 1.27. NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

[ ] Applicant changing to regular undiscounted fee status. NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature /Jeffri A. Kaminski Date April 11, 2014

Typed or printed name Jeffri A. Kaminski Registration No. 42,709

Electronic Patent Application Fee Transmittal

Application Number:	12294641
Filing Date:	12-Apr-2010
Title of Invention:	METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECIAL AREA
First Named Inventor/Applicant Name:	Carlos Alberto P¿rez Lafuente
Filer:	Jeffri Kaminski/l hayes
Attorney Docket Number:	122358-348870

Filed as Small Entity

U.S. National Stage under 35 USC 371 Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Utility Appl Issue Fee	2501	1	480	480
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
		Total in USD ($)		**480**

Electronic Acknowledgement Receipt	
EFS ID:	18737432
Application Number:	12294641
International Application Number:	
Confirmation Number:	1871
Title of Invention:	METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECIAL AREA
First Named Inventor/Applicant Name:	Carlos Alberto P¿rez Lafuente
Customer Number:	26694
Filer:	Jeffri Kaminski/l hayes
Filer Authorized By:	Jeffri Kaminski
Attorney Docket Number:	122358-348870
Receipt Date:	11-APR-2014
Filing Date:	12-APR-2010
Time Stamp:	11:47:09
Application Type:	U.S. National Stage under 35 USC 371

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$480
RAM confirmation Number	8901
Deposit Account	220261
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: Charge any Additional Fees required under 37 C.F.R. Section 1.20 (Post Issuance fees) Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Issue Fee Payment (PTO-85B)	ISSUETRANSMITTAL.pdf	104392 929ebba3989a618152bd13e097be6d5f9a18c7ef	no	1
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	30798 784f9c9ea3d0d6ad4766b98aa30f5d73faa375cd	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	135190		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
12/294,641	04/12/2010	2643	750	122358-348870	17	2

CONFIRMATION NO. 1871

CORRECTED FILING RECEIPT

26694
VENABLE LLP
P.O. BOX 34385
WASHINGTON, DC 20043-9998



Date Mailed: 03/31/2014

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

Inventor(s)

Carlos Alberto P¿rez Lafuente, Madrid, SPAIN;

Applicant(s)

Carlos Alberto P¿rez Lafuente, Madrid, SPAIN;

Power of Attorney: The patent practitioners associated with Customer Number 26694

Domestic Priority data as claimed by applicant

This application is a 371 of PCT/EP2007/052939 03/27/2007

Foreign Applications (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see http://www.uspto.gov for more information.)
EUROPEAN PATENT OFFICE (EPO) 06111804.8 03/28/2006

If Required, Foreign Filing License Granted: 04/17/2010

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 12/294,641**

Projected Publication Date: Not Applicable

Non-Publication Request: No

Early Publication Request: No
**** SMALL ENTITY ****

Title

METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECIAL AREA

Preliminary Class

455

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4258).

LICENSE FOR FOREIGN FILING UNDER

Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

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NOT GRANTED

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NOTICE OF ALLOWANCE AND FEE(S) DUE

26694 7590 01/27/2014

VENABLE LLP
P.O. BOX 34385
WASHINGTON, DC 20043-9998

EXAMINER
CHANG, JEAN

ART UNIT	PAPER NUMBER
2643	

DATE MAILED: 01/27/2014

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/294,641	04/12/2010	Carlos Alberto P¿rez Lafuente	122358-348870	1871

TITLE OF INVENTION: METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECIAL AREA

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$480	$0	$0	$480	04/28/2014

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
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Alexandria, Virginia 22313-1450
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CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

26694 7590 01/27/2014
VENABLE LLP
P.O. BOX 34385
WASHINGTON, DC 20043-9998

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission
I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/294,641	04/12/2010	Carlos Alberto P¿rez Lafuente	122358-348870	1871

TITLE OF INVENTION: METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECIAL AREA

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$480	$0	$0	$480	04/28/2014

EXAMINER	ART UNIT	CLASS-SUBCLASS
CHANG, JEAN	2643	455-456400

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
- ❑ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ❑ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.
1 _____
2 _____
3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ❑ Individual ❑ Corporation or other private group entity ❑ Government

4a. The following fee(s) are submitted:
- ❑ Issue Fee
- ❑ Publication Fee (No small entity discount permitted)
- ❑ Advance Order - # of Copies _____

4b. Payment of Fee(s): **(Please first reapply any previously paid issue fee shown above)**
- ❑ A check is enclosed.
- ❑ Payment by credit card. Form PTO-2038 is attached.
- ❑ The Director is hereby authorized to charge the required fee(s), any deficiency, or credits any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)
- ❑ Applicant certifying micro entity status. See 37 CFR 1.29 — NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.
- ❑ Applicant asserting small entity status. See 37 CFR 1.27 — NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.
- ❑ Applicant changing to regular undiscounted fee status. — NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____

PTOL-85 Part B (10-13) Approved for use through 10/31/2013. OMB 0651-0033 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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26694 7590 01/27/2014

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WASHINGTON, DC 20043-9998

EXAMINER	
CHANG, JEAN	
ART UNIT	PAPER NUMBER
2643	

DATE MAILED: 01/27/2014

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 125 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 125 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of Allowability	Application No. 12/294,641	Applicant(s) P¿REZ LAFUENTE, CARLOS ALBERTO	
	Examiner JEAN CHANG	Art Unit 2643	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *10/29/2013*.
   ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on_____.
2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.
3. ☒ The allowed claim(s) is/are *18-31*. As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov .
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   Certified copies:

   a) ☐ All b) ☐ Some *c) ☐ None of the:
   1. ☐ Certified copies of the priority documents have been received.
   2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
   3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
4. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____ .
5. ☒ Examiner's Amendment/Comment
6. ☒ Examiner's Statement of Reasons for Allowance
7. ☐ Other _____.

DETAILED ACTION

1. The present application is being examined under the pre-AIA first to invent provisions.

Response to Amendment

2. The applicant's amendments, filed on 10/29/2013, have been considered and have overcome prior art rejections. Claims 18-31 are allowed.

Examiner's Amendment

3. An examiner's amendment to the record appears below. Authorization for this Examiner's Amendment was given in a telephone interview with Jeffri A. Kaminski (Registration No. 42,709) on Jan. 15th, 2014.

- *Claim 18 (currently amended)*

  A method for monitoring the presence of a mobile station in one or more special areas associated with the mobile station, the method comprising:

  (a) repeatedly transmitting from at least one radio communication defining device a radio distinctive defining signal in at least one channel that at least partially defines one of the special areas by its coverage,

  (b) observing the channel and processing any received signal ~~with~~ by the mobile station in order to determine whether or not it is receiving a defining signal,

  (c) processing any received defining signal by the mobile station ~~to~~ and the mobile station determines whether or not the defining signal received is a

distinctive defining signal that at least partially defines one of the special areas, and determines whether or not the mobile station is present in one or more of the special areas,

(d) sending an updating signal from the mobile station to a mobile telephone network about the mobile station presence in one or more of the special areas, where the updating signal sending is uncorrelated to any mobile station phone call establishment and is based on the last determination performed by the mobile station about its presence in each of the special areas, and said updating signal being sent at least one of (i) periodically, (ii) when the mobile station enters into or exits from one of the special areas, and (iii) ~~both periodically~~ when the mobile station remains into a special area ~~and when the mobile station enters or exits one of the special areas~~,

(e) routing the updating signal from the mobile telephone network to special operating means that adapt the value of at least one operating parameter taking into account the presence of the mobile station in each of the special areas,

(f) associating the special areas with the mobile station by transmitting a checking data to the mobile station, this checking data being sent to any mobile station whose presence in the special areas is monitored and being used by the mobile station for determining whether or not the defining signal received is a distinctive defining signal that defines, alone or with other

distinctive defining signals, one or more of the special areas associated with the mobile station.

- *Claim 20 (currently amended)*

  The method according to claim 18 further comprising, acknowledging the reception of the updating signal ~~with~~ by the special operating means and transmitting an acknowledgement signal from the special operating means to the mobile station.

- *Claim 27 (currently amended)*

  The method according to claim 18 further comprising, receiving ~~with~~ by the mobile station the checking data from the mobile telephone network or a signal of at least one radio device or from manual input.

- *Claim 28 (currently amended)*

  A mobile system for monitoring the presence of a mobile station in one or more special areas defined for this mobile station, said system comprising:
  at least one radio communication defining device for repeatedly transmitting a radio distinctive defining signal that at least partially defines one of the special areas in at least one channel,
  special operating means for adapting the value of at least one operating parameter taking into account the presence of the mobile station in each of the special areas, and
  a mobile station, comprising:
  storage for storing a checking data,

observing means for observing said at least one channel, and

processing means for processing any received signal in order to determine whether or not the signal received is a defining signal and, if the signal received is a defining signal, for determining based on the checking data whether or not the signal received is a distinctive defining signal and whether or not the mobile station is present in the special area,

and the mobile station further comprising

transmission means for sending, at least one of (i) periodically, (ii) when the mobile station enters into or exits from one of the special areas, and (iii) ~~both periodically~~ when the mobile station remains into a special area ~~and when the mobile station enters or exits one of the special areas~~ an updating signal, that is uncorrelated to any mobile station phone call establishment, regarding the presence of the mobile station in one or more of the special areas from the processing means to the special operating means.

- *Claim 30 (currently amended)*

  ~~A mobile station that is adapted to~~ mobile station, comprising:

  observing means to observe a channel and process any received signal in order to determine whether or not it is receiving a defining signal,

  a processor to process any received defining signal and to determine, based on a previously obtained checking data, whether or not the defining signal received is a distinctive defining signal that at least partially defines a special area,

to determine whether or not it is present in one or more special areas, and to send an updating signal at least one of (i) periodically, (ii) when the mobile station enters into or exits from one of the special areas, and (iii) ~~both~~ ~~periodically~~ when the mobile station remains into a special area ~~and when the mobile station enters or exits one of the special areas~~ to a mobile telephone network about its presence in one or more of the special areas, where said updating signal sending is uncorrelated to any mobile station phone call establishment and is based on the last determination performed by the mobile station about its presence in the special areas.

- *Claim 31 (currently amended)*

  A non-transitory computer readable medium storing computer readable program code for causing a computer to perform a method, the method comprising:

  (a) observing a channel and processing any received signal ~~with~~ by the mobile station in order to determine whether or not it is receiving a defining signal,

  (b) processing any received defining signal by the mobile station and the mobile station determines, based on a previously obtained checking data, whether or not the defining signal received is a distinctive defining signal that at least partially defines one of the special areas, and determines whether or not the mobile station is present in one or more of the special areas,

(c) sending an updating signal from the mobile station to a mobile telephone network about the mobile station presence in one or more of the special areas, where the updating signal sending is uncorrelated to any mobile station phone call establishment and is based on the last determination performed by the mobile station about its presence in each of the special areas, and said updating signal being sent at least one of (i) periodically, (ii) when the mobile station enters into or exits from one of the special areas, and (iii) ~~both periodically~~ when the mobile station remains into a special area ~~and when the mobile station enters or exits one of the special areas~~.

Allowable Subject Matter

4. The following is an examiner's statement of reasons for allowance:

- Claim 18

  A method for monitoring the presence of a mobile station in one or more special areas associated with the mobile station, the method comprising:

  (a) repeatedly transmitting from at least one radio communication defining device a radio distinctive defining signal in at least one channel that at least partially defines one of the special areas by its coverage,

  (b) observing the channel and processing any received signal by the mobile station in order to determine whether or not it is receiving a defining signal,

  (c) processing any received defining signal by the mobile station and the mobile station determines whether or not the defining signal received

is a distinctive defining signal that at least partially defines one of the special areas, and determines whether or not the mobile station is present in one or more of the special areas,

(d) sending an updating signal from the mobile station to a mobile telephone network about the mobile station presence in one or more of the special areas, where the updating signal sending is uncorrelated to any mobile station phone call establishment and is based on the last determination performed by the mobile station about its presence in each of the special areas, and said updating signal being sent at least one of (i) periodically, (ii) when the mobile station enters into or exits from one of the special areas, and (iii) when the mobile station remains into a special area,

(e) routing the updating signal from the mobile telephone network to special operating means that adapt the value of at least one operating parameter taking into account the presence of the mobile station in each of the special areas,

(f) associating the special areas with the mobile station by transmitting a checking data to the mobile station, this checking data being sent to any mobile station whose presence in the special areas is monitored and being used by the mobile station for determining whether or not the defining signal received is a distinctive defining signal that defines, alone

or with other distinctive defining signals, one or more of the special areas associated with the mobile station.

- Claim 28

  A mobile system for monitoring the presence of a mobile station in one or more special areas defined for this mobile station, said system comprising:

  at least one radio communication defining device for repeatedly transmitting a radio distinctive defining signal that at least partially defines one of the special areas in at least one channel,

  special operating means for adapting the value of at least one operating parameter taking into account the presence of the mobile station in each of the special areas, and

  a mobile station, comprising:

  storage for storing a checking data,

  observing means for observing said at least one channel, and

  processing means for processing any received signal in order to determine whether or not the signal received is a defining signal and, if the signal received is a defining signal, for determining based on the checking data whether or not the signal received is a distinctive defining signal and whether or not the mobile station is present in the special area,

  and the mobile station further comprising

  transmission means for sending, at least one of (i) periodically, (ii) when the mobile station enters into or exits from one of the special areas, and

(iii) when the mobile station remains into a special area an updating signal, that is uncorrelated to any mobile station phone call establishment, regarding the presence of the mobile station in one or more of the special areas from the processing means to the special operating means.

- Claim 30

  A mobile station, comprising:

  observing means to observe a channel and process any received signal in order to determine whether or not it is receiving a defining signal,

  a processor to process any received defining signal and to determine, based on a previously obtained checking data, whether or not the defining signal received is a distinctive defining signal that at least partially defines a special area,

  to determine whether or not it is present in one or more special areas, and to send an updating signal at least one of (i) periodically, (ii) when the mobile station enters into or exits from one of the special areas, and (iii) when the mobile station remains into a special area to a mobile telephone network about its presence in one or more of the special areas, where said updating signal sending is uncorrelated to any mobile station phone call establishment and is based on the last determination performed by the mobile station about its presence in the special areas.

- Claim 31

A non-transitory computer readable medium storing computer readable program code for causing a computer to perform a method, the method comprising:

(a) observing a channel and processing any received signal by the mobile station in order to determine whether or not it is receiving a defining signal,

(b) processing any received defining signal by the mobile station and the mobile station determines, based on a previously obtained checking data, whether or not the defining signal received is a distinctive defining signal that at least partially defines one of the special areas, and determines whether or not the mobile station is present in one or more of the special areas,

(c) sending an updating signal from the mobile station to a mobile telephone network about the mobile station presence in one or more of the special areas, where the updating signal sending is uncorrelated to any mobile station phone call establishment and is based on the last determination performed by the mobile station about its presence in each of the special areas, and said updating signal being sent at least one of (i) periodically, (ii) when the mobile station enters into or exits from one of the special areas, and (iii) when the mobile station remains into a special area.

- The prior art of the record fails to teach or render obvious singly or in combination the feature highlighted above.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Chang whose telephone number is (571) 270-7979. The examiner can normally be reached on Mon-Thursday from 9:00-5:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Jinsong Hu can be reached on (571) 272-3965. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center

(EBC) at 866-217-9197 (toll-free).

/Jean Chang/

Examiner, Art Unit 2643

/JINSONG HU/

Supervisory Patent Examiner, Art Unit 2643

Examiner-Initiated Interview Summary	Application No.	Applicant(s)	
	12/294,641	P¿REZ LAFUENTE, CARLOS ALBERTO	
	Examiner	Art Unit	
	JEAN CHANG	2643	

All participants (applicant, applicant's representative, PTO personnel):

(1) *JEAN CHANG*. (3)_____.

(2) *Jeffri A. Kaminski (reg. no. 42,709)*. (4)_____.

Date of Interview: *15 January 2014*.

Type: ☒ Telephonic ☐ Video Conference
☐ Personal [copy given to: ☐ applicant ☐ applicant's representative]

Exhibit shown or demonstration conducted: ☐ Yes ☒ No.
If Yes, brief description: _____.

Issues Discussed ☐101 ☐112 ☐102 ☐103 ☒Others
(For each of the checked box(es) above, please describe below the issue and detailed description of the discussion)

Claim(s) discussed: *18,20,27,28,30 and 31*.

Identification of prior art discussed: *n/a*.

Substance of Interview
(For each issue discussed, provide a detailed description and indicate if agreement was reached. Some topics may include: identification or clarification of a reference or a portion thereof, claim interpretation, proposed amendments, arguments of any applied references etc...)

Examiner contacted the above mentioned applicant's representative to discuss some informal issues found in the claims listed above. Agreement was reached to correct the problems via examiner amendment, the detail of which is shown in the Detailed Action to which this paper is attached. The agreement and the subsequent amendment have placed the claims in an allowable condition..

Applicant recordation instructions: It is not necessary for applicant to provide a separate record of the substance of interview.

Examiner recordation instructions: Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

☐ Attachment

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	2	(mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) same (receiv$4) near5 (signal or transmission or broadcast or data) near15 (detect$4 or identify$4 or determin$4 or recogniz$4 or presence) near15 (special or limited or distinct$5 or different or preferred or discount or home) near10 ((service or tarrif or rate) (area or coverage or location or zone)) near20 (send$4 or transmit$5 or transmi$6 or report$5 or notify$5 or signal$4) near10 (periodically or enter$4 or exit$4 or leav$4 or presence) near5 (special or limited or distinct$5 or preferred or discount or home) near10 ((service or tarrif or rate) (area or coverage or location or zone))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/01/20 23:05
L2	19	(mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) same (receiv$4) near5 (signal or transmission or broadcast or data) near30 (detect$4 or identify$4 or determin$4 or recogniz$4 or presence) near20 (special or limited or distinct$5 or different or preferred or discount or home) near10 ((service or tarrif or rate) or (area or coverage or location or zone)) near20 (send$4 or transmit$5 or transmi$6 or report$5 or notify$5 or signal$4) near10 (periodically or enter$4 or exit$4 or leav$4 or presence) near10 (special or limited or distinct$5 or preferred or discount or home) near10 ((service or tarrif or rate) or (area or coverage or location or zone))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/01/20 23:13
L3	24	"lafuente, carlos".inv.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/01/20 23:27
L4	30466	455/456.4.ccls. or 455/555.ccls. or 455/408.ccls. or 455/432.2.ccls. or 455/406.ccls. or 455/458.ccls. or 455/414.1.ccls. or 455/446.ccls. or 455/456.1.ccls. or 455/433.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/01/20 23:27
L5	1	l2 and l3	US-PGPUB; USPAT;	ADJ	ON	2014/01/20 23:27

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
L6	6	l2 and l4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/01/20 23:27
L7	4	((mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) same (receiv$4) near5 (signal or transmission or broadcast or data) near30 (detect$4 or identify$4 or determin$4 or recogniz$4 or presence) near20 (special or limited or distinct$5 or different or preferred or discount or home) near10 ((service or tarrif or rate) or (area or coverage or location or zone)) near20 (send$4 or transmit$5 or transmi$6 or report$5 or notify$5 or signal$4) near10 (periodically or enter$4 or exit$4 or leav$4 or presence) near10 (special or limited or distinct$5 or preferred or discount or home) near10 ((service or tarrif or rate) or (area or coverage or location or zone))).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/01/20 23:30
S1	29	"6334052"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/26 17:50
S2	5	"6785536"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/26 17:55
S3	20	"6826414"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/26 17:56
S4	4	"20020094801"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 08:40
S5	4	"2000027152"	US-PGPUB; USPAT; USOCR;	ADJ	ON	2011/09/28 08:42

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S6	4	"7212804"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 08:44
S7	3	"20080004045"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 09:17
S8	3	"20030092450"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 09:20
S9	14589	(special or distint or different or preferred or discount) near10 (service or tarrif or rate) near10 (area or coverage)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 09:27
S10	2969	(special or distint or different or preferred or discount) near10 (service or tarrif or rate) near10 (area or coverage) same (signal or code or identifier or identification or parameter or flag)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 09:29
S11	607	(special or distint or different or preferred or discount) near10 (service or tarrif or rate) near10 (area or coverage) same (signal or code or identifier or identification or parameter or flag) same ((base station) or cell or AP)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 09:30
S12	236	(special or distint or different or preferred or discount) near10 (service or tarrif or rate) near10 (area or coverage) same (signal or code or identifier or identification or parameter or flag) same ((base station) or cell or AP) and monitor	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 09:30
S13	308	(special or distint or different or preferred or discount) near10 (service or tarrif or rate) near10 (area or coverage) same (signal or code or identifier or identification or parameter or flag) same ((base station) or cell or AP) and (monitor or presence)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 09:31
S14	52	(special or distint or different or preferred	US-PGPUB;	ADJ	ON	2011/09/28

		or discount) near10 (service or tarrif or rate) near10 (area or coverage) same (signal or code or identifier or identification or parameter or flag) same ((base station) or cell or AP) and (monitor or presence) and multimedia	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			09:31
S15	1006	(special or distint or different or preferred or discount) near20 (service or tarrif or rate or billing or charg$3 or zone) near20 (area or coverage) same (signal or code or identifier or identification or parameter or flag) same ((base station) or cell or AP)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:44
S16	399	S15 not S11	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:44
S17	16	S16 and special service	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:45
S18	18	S16 and (special or distinct) (service or zone)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:45
S19	19	S16 and (special or distinct) (service or zone or area)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:45
S20	313	455/456.4.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:48
S21	6	"lafuente, carlos".inv.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:48
S22	1	S20 and S16	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	ADJ	ON	2011/09/28 10:49

			IBM_TDB			
S23	16	"6625442"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:49
S24	20	"6516193"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:52
S25	5	"6785536"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/30 18:40
S26	6	"6920317"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/30 18:42
S27	1182	(special or limited or distint or different or preferred or discount or home) near10 (service or tarrif or rate) near10 (area or coverage or location or zone) same (signal or code or identifier or identification or parameter or flag) same ((base station) or cell or AP or device) same (wireless or mobile) and (monitor or presence)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2012/06/21 10:39
S28	15	(special or limited or distint or different or preferred or discount or home) near10 (service or tarrif or rate) near10 (area or coverage or location or zone) same (signal or code or identifier or identification or parameter or flag) same ((base station) or cell or AP or device) same (wireless or mobile) and (monitor or presence) near10 (mobile or wireless) (station or device or phone) near10 (determin$4 or recogniz$4 or realiz$3 or check$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2012/06/21 10:44
S29	368	455/456.4.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2012/06/21 11:35
S30	6	"lafuente, carlos".inv.	US-PGPUB; USPAT; USOCR; FPRS;	ADJ	ON	2012/06/21 11:36

			EPO; JPO; DERWENT; IBM_TDB			
S31	15	(special or limited or distint or different or preferred or discount or home) near10 (service or tarrif or rate) near10 (area or coverage or location or zone) same (signal or code or identifier or identification or parameter or flag) same ((base station) or cell or AP or device) same (wireless or mobile) and (monitor or presence) near10 (mobile or wireless) (station or device or phone) near10 (determin$4 or recogniz$4 or realiz$3 or check$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2012/06/21 11:36
S32	0	S31 and S29	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2012/06/21 11:36
S33	18	(special or limited or distint or different or preferred or discount or home) near10 (service or tarrif or rate) near10 (area or coverage or location or zone) same (signal or code or identifier or identification or parameter or flag) same ((base station) or cell or AP or device) same (wireless or mobile) and (monitor or presence) near10 (mobile or wireless) (station or device or phone) near10 (determin$4 or recogniz$4 or realiz$3 or check$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2012/06/25 01:08
S34	6	"lafuente, carlos".inv.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2012/06/25 01:10
S35	1	S33 and S34	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2012/06/25 01:10
S36	1	"12294641"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2012/06/25 18:36
S37	771	(mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) near10 (presence or enter$4 or exit$4 or leav$4 or detect$4 or identify$4 or determin$4 or recogniz$4 or realiz$3 or check$3) near10 (special or limited or distint or different or	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/01 12:34

		preferred or discount or home) near10 ((service or tarrif or rate) or (area or coverage or location or zone)) same (send$4 or transmit$5 or transmi$6) near10 (signal or code or identifier or identification or parameter or flag or messag$3) same ((base station) or cell or AP or device)				
S38	211	(mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) near10 (presence or enter$4 or exit$4 or leav$4 or detect$4 or identify$4 or determin$4 or recogniz$4 or realiz$3 or check$3) near10 (special or limited or distint or different or preferred or discount or home) near5 ((service or tarrif or rate) or (area or coverage or location or zone)) near10 (send$4 or transmit$5 or transmi$6) near10 (signal or code or identifier or identification or parameter or flag or messag$3) near10 ((base station) or cell or AP or device or network)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/01 12:38
S39	150	(mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) near10 (presence or enter$4 or exit$4 or leav$4 or detect$4 or identify$4 or determin$4 or recogniz$4 or realiz$3 or check$3) near10 (special or limited or distint or different or preferred or discount or home) near5 ((service or tarrif or rate) or (area or coverage or location or zone)) near10 (send$4 or transmit$5 or transmi$6) near10 (signal or code or identifier or identification or parameter or flag or messag$3) near10 ((base station) or cell or AP or device or network)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	OFF	2013/06/01 12:49
S40	1	"12294641"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/01 13:53
S41	30	(mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) near10 (enter$4 or exit$4 or leav$4) near10 (special or limited or distint or different or preferred or discount or home) near5 ((service or tarrif or rate) or (area or coverage or location or zone)) near10 (send$4 or transmit$5 or transmi$6) near10 (signal or code or identifier or identification or parameter or flag or messag$3) near10 ((base station) or cell or AP or device or network)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	OFF	2013/06/01 19:14
S42	771	(mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) near10 (presence or enter$4 or exit$4 or leav$4	US-PGPUB; USPAT; USOCR; FPRS;	ADJ	ON	2013/06/01 19:20

		or detect$4 or identify$4 or determin$4 or recogniz$4 or realiz$3 or check$3) near10 (special or limited or distint or different or preferred or discount or home) near10 ((service or tarrif or rate) or (area or coverage or location or zone)) same (send$4 or transmit$5 or transmi$6) near10 (signal or code or identifier or identification or parameter or flag or messag$3) same ((base station) or cell or AP or device)	EPO; JPO; DERWENT; IBM_TDB			
S43	106	S42 and (location or zone or area) service	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/01 19:20
S44	11	(mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) near10 (presence or enter$4 or exit$4 or leav$4) near10 (special or limited or distint or different or preferred or discount or home) near10 ((service or tarrif or rate) (area or coverage or location or zone)) same (send$4 or transmit$5 or transmi$6) near10 (signal or code or identifier or identification or parameter or flag or messag$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/01 19:29
S45	19	(mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) near10 (presence or enter$4 or exit$4 or leav$4) near10 (special or limited or distint or different or preferred or discount or home) near10 ((service or tarrif or rate) near5 (area or coverage or location or zone)) same (send$4 or transmit$5 or transmi$6) near10 (signal or code or identifier or identification or parameter or flag or messag$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/01 19:30
S46	81	(mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) near10 (presence or enter$4 or exit$4 or leav$4) near10 (special or limited or distint or different or preferred or discount or home) near10 ((service or tarrif or rate) near5 (area or coverage or location or zone)) and (LBS or (location near6 service))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/01 19:36
S47	81	(mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) near10 (presence or enter$4 or exit$4 or leav$4) near10 (special or limited or distint or different or preferred or discount or home) near10 ((service or tarrif or rate) near5 (area or coverage or location or zone)) and (LBS or ((location or geo$6) near6 service))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/01 19:36

S48	128	(mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) near10 (presence or enter$4 or exit$4 or leav$4) near10 (special or limited or distint or different or preferred or discount or home) near10 ((service or tarrif or rate) near5 (area or coverage or location or zone))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/01 19:59
S49	39	(mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) near10 (presence or enter$4 or exit$4 or leav$4) near10 (special or limited or distint or different or preferred or discount or home) near10 ((service or tarrif or rate) near5 (area or coverage or location or zone)) same (report$4 or send$4 or transmi$5 or notify$6)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/01 20:01
S50	128	(mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) near10 (presence or enter$4 or exit$4 or leav$4) near10 (special or limited or distint or different or preferred or discount or home) near10 ((service or tarrif or rate) near5 (area or coverage or location or zone))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/01 20:05
S51	89	S50 not S49	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/01 20:07
S52	3	"2008171531"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/01 22:55
S53	2	"20080171531"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/01 22:55
S54	29	(US-20020094801-$ or US-20080004045-$ or US-20030092450-$ or US-20080261604-$ or US-20050148297-$ or US-20050075124-$ or US-20040224682-$ or US-20040192267-$ or US-20100167725-$ or US-20080171531-$).did. or (US-6334052-$ or US-6625442-$ or US-6785536-$ or US-6826414-$ or US-7778652-$ or US-7142869-$ or US-7171189-$ or US-6836653-$ or US-6516193-$ or US-6671506-$ or US-7634255-$ or US-7266366-$ or US-6920317-$ or US-6516190-$).did. or	US-PGPUB; USPAT; EPO; DERWENT	ADJ	ON	2013/06/01 23:06

		(WO-2007009297-$).did. or (WO-0027152-$ or WO-9858505-$ or WO-2007014714-$ or JP-2000050335-$).did.				
S55	9	S54 and (enter$4 or exit$4 or leav$4) same (zone or (service area))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/01 23:07
S56	3822	(mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) same (presence or enter$4 or exit$4 or leav$4 or detect$4 or identify$4 or determin$4 or recogniz$4 or realiz$3 or check$3) near10 (special or limited or distint or different or preferred or discount or home) near10 ((service or tarrif or rate) or (area or coverage or location or zone)) same (send$4 or transmit$5 or transmi$6 or report$5 or notify$5)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/01 23:12
S57	1223	(mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) same (presence or enter$4 or exit$4 or leav$4 or detect$4 or identify$4 or determin$4 or recogniz$4 or realiz$3 or check$3) near10 (special or limited or distint or different or preferred or discount or home) near10 ((service or tarrif or rate) or (area or coverage or location or zone)) same (send$4 or transmit$5 or transmi$6 or report$5 or notify$5) and (zone or (service area) or LSA)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/01 23:14
S58	197	S57 and (enter$4 or exit$4) near10 (zone or (service area))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/01 23:16
S59	6	"lafuente, carlos".inv.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/02 23:49
S60	22527	455/456.4.ccls. or 455/555.ccls. or 455/408.ccls. or 455/432.2.ccls. or 455/406.ccls. or 455/458.ccls. or 455/414.1.ccls. or 455/446.ccls. or 455/456.1.ccls. or 455/433.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/02 23:51
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		(special or limited or distint or different or preferred or discount or home) near10 ((service or tarrif or rate) or (area or coverage or location or zone)) same (send$4 or transmit$5 or transmi$6 or report$5 or notify$5) and (zone or (service area) or LSA)	IBM_TDB			
S62	197	S61 and (enter$4 or exit$4) near10 (zone or (service area))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/02 23:52
S63	0	S62 and S59	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/02 23:52
S64	59	S62 and S60	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/02 23:52
S65	1	"12294641"	US-PGPUB; USPAT; EPO; DERWENT	ADJ	ON	2014/01/06 23:30
S66	1	S65 and updating signal	US-PGPUB; USPAT; EPO; DERWENT	ADJ	ON	2014/01/06 23:30
S67	1	S65 and updating signal same (period$5 or enter$4 or exit$4)	US-PGPUB; USPAT; EPO; DERWENT	ADJ	ON	2014/01/06 23:46
S68	1	S65 and updating signal and (period$5 or enter$4 or exit$4)	US-PGPUB; USPAT; EPO; DERWENT	ADJ	ON	2014/01/06 23:50
S69	1	S65 and updating signal and (periodically or enter$4 or exit$4)	US-PGPUB; USPAT; EPO; DERWENT	ADJ	ON	2014/01/07 00:31
S70	1	"12294641"	US-PGPUB; USPAT; EPO; DERWENT	ADJ	ON	2014/01/20 18:22
S71	24	"lafuente, carlos".inv.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/01/20 19:24
S72	30466	455/456.4.ccls. or 455/555.ccls. or	US-PGPUB;	ADJ	ON	2014/01/20

		455/408.ccls. or 455/432.2.ccls. or 455/406.ccls. or 455/458.ccls. or 455/414.1.ccls. or 455/446.ccls. or 455/456.1.ccls. or 455/433.ccls.	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			19:25
S73	987	(mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) same (presence or enter$4 or exit$4 or leav$4 or detect$4 or identify$4 or determin$4 or recogniz$4 or realiz$3 or check$3) near15 (special or limited or distinct$5 or different or preferred or discount or home) near10 ((service or tarrif or rate) or (area or coverage or location or zone)) near20 (send$4 or transmit$5 or transmi$6 or report$5 or notify$5 or signal$4) and (zone or (service area) or LSA)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/01/20 19:27
S74	247	(mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) same (presence or enter$4 or exit$4 or leav$4 or detect$4 or identify$4 or determin$4 or recogniz$4 or realiz$3 or check$3) near15 (special or limited or distinct$5 or different or preferred or discount or home) near10 ((service or tarrif or rate) or (area or coverage or location or zone)) near20 (send$4 or transmit$5 or transmi$6 or report$5 or notify$5 or signal$4) same (memory or stor$4) near10 (data or check$4 or identifier or identification)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/01/20 19:32
S75	42	((mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) same (presence or enter$4 or exit$4 or leav$4 or detect$4 or identify$4 or determin$4 or recogniz$4 or realiz$3 or check$3) near15 (special or limited or distinct$5 or different or preferred or discount or home) near10 ((service or tarrif or rate) or (area or coverage or location or zone)) near20 (send$4 or transmit$5 or transmi$6 or report$5 or notify$5 or signal$4) same (memory or stor$4) near10 (data or check$4 or identifier or identification)).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/01/20 19:34
S76	1	S74 and S71	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/01/20 19:34
S77	60	S74 and S72	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	ADJ	ON	2014/01/20 19:34

			DERWENT; IBM_TDB			
S78	48	S77 not S75	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/01/20 20:05
S79	13	S78 and (special or limited or preferred or discount$4) near5 (area or zone or service)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2014/01/20 20:06

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L8	16	(mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) same (receiv$4) near5 (signal or transmission or broadcast or data) near30 (detect$4 or identify$4 or determin$4 or recogniz$4 or presence) near20 (special or limited or distinct$5 or different or preferred or discount or home) near10 ((service or tarrif or rate) or (area or coverage or location or zone)) near20 (send$4 or transmit$5 or transmi$6 or report$5 or notify$5 or signal$4) near10 (periodically or enter$4 or exit$4 or leav$4 or presence) near10 (special or limited or distinct$5 or preferred or discount or home) near10 ((service or tarrif or rate) or (area or coverage or location or zone))	US-PGPUB; USPAT; UPAD	ADJ	ON	2014/01/20 23:33
L9	4	"lafuente, carlos".inv.	US-PGPUB; USPAT; UPAD	ADJ	ON	2014/01/20 23:33
L10	25021	455/456.4.ccls. or 455/555.ccls. or 455/408.ccls. or 455/432.2.ccls. or 455/406.ccls. or 455/458.ccls. or 455/414.1.ccls. or 455/446.ccls. or 455/456.1.ccls. or 455/433.ccls.	US-PGPUB; USPAT; UPAD	ADJ	ON	2014/01/20 23:33
L11	4	((mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) same (receiv$4) near5 (signal or transmission or broadcast or data) near30 (detect$4 or identify$4 or determin$4 or recogniz$4 or presence) near20 (special or limited or distinct$5 or different or preferred or discount or home) near10 ((service or tarrif or rate) or (area or coverage or location or zone)) near20 (send$4 or transmit$5 or transmi$6 or report$5 or notify$5 or signal$4) near10 (periodically or enter$4 or exit$4 or leav$4 or presence) near10 (special or limited or distinct$5 or preferred or discount or home)	US-PGPUB; USPAT; UPAD	ADJ	ON	2014/01/20 23:33

		near10 ((service or tarrif or rate) or (area or coverage or location or zone))).clm.				
L12	1	l8 and l9	US-PGPUB; USPAT; UPAD	ADJ	ON	2014/01/20 23:34
L13	6	l8 and l10	US-PGPUB; USPAT; UPAD	ADJ	ON	2014/01/20 23:34

1/ 20/ 2014 11:36:57 PM
C:\ Users\ jchang7\ Documents\ EAST\ Workspaces\ 12294641.wsp

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12294641	P¿REZ LAFUENTE, CARLOS ALBERTO
	Examiner	**Art Unit**
	JEAN CHANG	2643

CPC		
Symbol	**Type**	**Version**

CPC Combination Sets				
Symbol	**Type**	**Set**	**Ranking**	**Version**

/JEAN CHANG/ Examiner.Art Unit 2643	01/20/2014	**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	14	
/JINSONG HU/ Supervisory Patent Examiner.Art Unit 2643	01/21/2014	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	18	5

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12294641	P¿REZ LAFUENTE, CARLOS ALBERTO
	Examiner	**Art Unit**
	JEAN CHANG	2643

US ORIGINAL CLASSIFICATION		INTERNATIONAL CLASSIFICATION	
CLASS	SUBCLASS	CLAIMED	NON-CLAIMED
455	456.4	H 0 4 W 64 / 00 (2009.01.01)	

CROSS REFERENCE(S)					
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)				
455	456.1	433	432.2		

/JEAN CHANG/ Examiner.Art Unit 2643 (Assistant Examiner)	01/20/2014 (Date)	**Total Claims Allowed:** 14
/JINSONG HU/ Supervisory Patent Examiner.Art Unit 2643 (Primary Examiner)	01/21/2014 (Date)	O.G. Print Claim(s): 18 O.G. Print Figure: 5

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12294641	P¿REZ LAFUENTE, CARLOS ALBERTO
	Examiner	**Art Unit**
	JEAN CHANG	2643

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
-	1	-	17												
-	2	1	18												
-	3	2	19												
-	4	3	20												
-	5	4	21												
-	6	5	22												
-	7	6	23												
-	8	7	24												
-	9	8	25												
-	10	9	26												
-	11	10	27												
-	12	11	28												
-	13	12	29												
-	14	13	30												
-	15	14	31												
-	16														

/JEAN CHANG/ Examiner.Art Unit 2643	01/20/2014	**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	14	
/JINSONG HU/ Supervisory Patent Examiner.Art Unit 2643	01/21/2014	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	18	5

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12294641	P REZ LAFUENTE, CARLOS ALBERTO
	Examiner	Art Unit
	JEAN CHANG	2617

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
455	456.4	9/28/2011	jc
455	456.4	6/21/2012	jc
455	456.4, 555, 408, 432.2, 406, 458, 414.1, 446, 456.1, 433	6/2/2013	jc
455	456.4, 555, 408, 432.2, 406, 458, 414.1, 446, 456.1, 433	1/20/2014	jc

SEARCH NOTES		
Search Notes	Date	Examiner
inventor search on East databases	9/28/2011	jc
search East databases for special/distint/different/preferred/discount service/tariff/rate/charging/billing service/area/zone base station/AP/area	9/28/2011	jc
inventor search on East databases	6/21/2012	jc
(special or limited or distint or different or preferred or discount or home) near10 (service or tarrif or rate) near10 (area or coverage or location or zone) same (signal or code or identifier or identification or parameter or flag) same ((base station) or cell or AP or device) same (wireless or mobile) and (monitor or presence) near10 (mobile or wireless) (station or device or phone) near10 (determin$4 or recogniz$4 or realiz$3 or check$3)	6/21/2012	jc
update inventor search and update text search on East databases	6/1-2/2013	jc
update inventor search and text search on East for special or limited or distint or different or preferred or discount or home) (service or tarrif or rate (area or coverage or location or zone) (signal or code or identifier or identification or parameter or flag) (monitor or presence) (mobile or wireless) (station or device or phone)	1/20/2014	jc

INTERFERENCE SEARCH			
US Class/ CPC Symbol	**US Subclass / CPC Group**	**Date**	**Examiner**
455	456.4, 555, 408, 432.2, 406, 458, 414.1, 446, 456.1, 433	1/20/2014	jc

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of: Carlos A. Perez Lafuente	Art Unit: 2617
Application No: 12/294,641	Examiner: J. Chang
Confirmation No: 1871	
Filed: April 12, 2010	Atty. Docket No: 122358-348870
For: METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECIAL AREA	Customer No: 26694 PATENT & TRADEMARK OFFICE

AMENDMENT IN RESPONSE TO NON-FINAL OFFICE ACTION UNDER 37 C.F.R. 1.111

MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Madam:

INTRODUCTORY COMMENTS

In response to the Office Action dated June 13, 2013, please amend the above-identified U.S. patent application as follows:

Amendment to the Drawings are reflected on page 2 of this paper.

Amendments to the Claims are reflected in the listing of claims which begins on page 3 of this paper.

Remarks/Arguments begin on page 8 of this paper.

AMENDMENTS TO THE DRAWINGS

Replacement sheets to Figures 4 and 5 are submitted herewith.

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

(Canceled) Claims 1-17

18. (New) A method for monitoring the presence of a mobile station in one or more special areas associated with the mobile station, the method comprising:

(a) repeatedly transmitting from at least one radio communication defining device a radio distinctive defining signal in at least one channel that at least partially defines one of the special areas by its coverage,

(b) observing the channel and processing any received signal with the mobile station in order to determine whether or not it is receiving a defining signal,

(c) processing any received defining signal by the mobile station to and the mobile station determines whether or not the defining signal received is a distinctive defining signal that at least partially defines one of the special areas, and determines whether or not the mobile station is present in one or more of the special areas,

(d) sending an updating signal from the mobile station to a mobile telephone network about the mobile station presence in one or more of the special areas, where the updating signal sending is uncorrelated to any mobile station phone call establishment and is based on the last determination performed by the mobile station about its presence in each of the special areas, and said updating signal being sent at least one of (i) periodically, (ii) when the mobile station enters or exits one of the special areas, and (iii) both periodically when the mobile station remains into a special area and when the mobile station enters or exits one of the special areas,

(e) routing the updating signal with the mobile telephone network to special operating means that adapt the value of at least one operating parameter taking into account the presence of the mobile station in each of the special areas,

(f) associating the special areas with the mobile station by transmitting a checking data to the mobile station, this checking data being sent to any mobile station whose presence in the

special areas is monitored and being used by the mobile station for determining whether or not the defining signal received is a distinctive defining signal that defines, alone or with other distinctive defining signals, one or more of the special areas associated with the mobile station.

19. (New) The method according to claim 18 further comprising, sending a deactivation signal from the mobile telephone network to the mobile station to stop the mobile station from recognizing a defining signal that defines the special area as a distinctive one in order to deactivate that special area for the mobile station.

20. (New) The method according to claim 18 further comprising, acknowledging the reception of the updating signal with the special operating means and transmitting an acknowledgement signal from the special operating means to the mobile station.

21. (New) The method according to claim 18, wherein at least one radio communication defining device is a wireless device whose radio distinctive defining signal is a distinctive wireless signal transmitted by the wireless device in a frequency range outside the frequency range allocated for the mobile telephone network, the distinctive wireless signal containing wireless device identification data and reliable information confirming that the wireless device is effectively located into a predetermined environment, and the checking data associated with this wireless device including the wireless device identification data.

22. (New) The method according to claim 18, wherein at least one radio communication defining device is a base station whose radio distinctive defining signal is a distinctive signal comprising a special mobile telephone network identification code, the checking data associated with this base station including this special mobile telephone network identification code.

23. (New) The method according to claim 18, wherein at least one radio communication defining device is a base station whose radio distinctive defining signal is a distinctive base

station identity signal comprising an identification code of the base station, the checking data associated with this base station including this base station identification code.

24. (New) The method according to claim 18, wherein the special operating means comprise a parameters database linking the special area to the mobile station and to a set of one or more operating parameters; and a value of at least one operational parameter of this set is adapted when an updating signal signaling that the mobile station exits or enters the special area is received.

25. (New) The method according to claim 18, wherein the operating parameter is a tariff flag or a service flag that enables or disables a special tariff or a service for the mobile station.

26. (New) The method according to claim 18, wherein the updating signal includes a request to access a service or multimedia content and the mobile telephone network routes this request to a part of the special operating means that allow or forbid the provision of this service or multimedia content depending on whether or not the mobile station is into the special area.

27. (New) The method according to claim 18 further comprising, receiving with the mobile station the checking data from the mobile telephone network or a signal of at least one radio device or from manual input.

28. (New) A mobile system for monitoring the presence of a mobile station in one or more special areas defined for this mobile station, said system comprising:

at least one radio communication defining device for repeatedly transmitting a radio distinctive defining signal that at least partially defines one of the special areas in at least one channel,

special operating means for adapting the value of at least one operating parameter taking into account the presence of the mobile station in each of the special areas, and

a mobile station, comprising:

storage for storing a checking data,

observing means for observing said at least one channel, and

processing means for processing any received signal in order to determine whether or not the signal received is a defining signal and, if the signal received is a defining signal, for determining based on the checking data whether or not the signal received is a distinctive defining signal and whether or not the mobile station is present in the special area,

and the mobile station further comprising

transmission means for sending, at least one of (i) periodically, (ii) when the mobile station enters or exits one of the special areas, and (iii) both periodically when the mobile station remains into a special area and when the mobile station enters or exits one of the special areas an updating signal, that is uncorrelated to any mobile station phone call establishment, regarding the presence of the mobile station in one or more of the special areas from the processing means to the special operating means.

29. (New) The system according to claim 28, wherein the mobile system comprises special area location monitoring means for monitoring the correct location of at least a part of one or more of the special areas.

30. (New) A mobile station that is adapted to

observe a channel and process any received signal in order to determine whether or not it is receiving a defining signal,

to process any received defining signal and to determine, based on a previously obtained checking data, whether or not the defining signal received is a distinctive defining signal that at least partially defines a special area,

to determine whether or not it is present in one or more special areas, and

to send an updating signal at least one of (i) periodically, (ii) when the mobile station enters or exits one of the special areas, and (iii) both periodically when the mobile station remains into a special area and when the mobile station enters or exits one of the special areas to

a mobile telephone network about its presence in one or more of the special areas, where said updating signal sending is uncorrelated to any mobile station phone call establishment and is based on the last determination performed by the mobile station about its presence in the special areas.

31. (New) A non-transitory computer readable medium storing computer readable program code for causing a computer to perform a method, the method comprising:

(a) observing a channel and processing any received signal with the mobile station in order to determine whether or not it is receiving a defining signal,

(b) processing any received defining signal by the mobile station and the mobile station determines whether or not the defining signal received is a distinctive defining signal that at least partially defines one of the special areas, and determines whether or not the mobile station is present in one or more of the special areas,

(c) sending an updating signal from the mobile station to a mobile telephone network about the mobile station presence in one or more of the special areas, where the updating signal sending is uncorrelated to any mobile station phone call establishment and is based on the last determination performed by the mobile station about its presence in each of the special areas, and said updating signal being sent at least one of (i) periodically, (ii) when the mobile station enters or exits one of the special areas, and (iii) both periodically when the mobile station remains into a special area and when the mobile station enters or exits one of the special areas.

REMARKS

Claims 18-31 are now pending in this application. Claims 1-17 are canceled and are replaced with new claims 18-31. Claims 18-30 correspond to claims 1-12 and 17. Each of the pending claims is believed to define an invention which is novel and unobvious over the cited references. Favorable reconsideration of this case is respectfully requested.

The Examiner's courtesy in conducting an interview with Applicant's representative is appreciated. During the interview, the differences between the present invention and the cited art were discussed. The Examiner suggested amending the claims to emphasize the mobile centric features of the present invention. The claims are amended along the lines discussed during the interview, related to the following items included in the last Office Action:

Claims 1-4, 6, 8-12 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Linkola in view of Muhonen further in view of Atorf.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linkola in view of Muhonen in view of Atorf further in view of Salmela.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linkola in view of Muhonen in view of Atorf further in view of Reynolds.

As a result of the referred interview, the Applicant believes to understand that the Examiner believes in particular that option (i) of claim 18, i.e. the updating signal being sent periodically is disclosed in Linkola.

In particular, the Examiner has indicated the following passages wherein allegedly this feature can be found:

- col. 9, line 60 – col. 10, line 21
- col. 10, line 64 – col. 11, line 10
- claim 14

It is respectfully submitted that feature (d) of claim 18 is not disclosed in Linkola or in any of the other cited documents.

Feature (d) of claim 18 reads:

(d) sending an updating signal from the mobile station to a mobile telephone network about the mobile station presence in one or more of the special areas, the updating signal based on the last determination performed by the mobile station about its presence in each of the special areas, and

said updating signal being sent at least one of (i) periodically, (ii) when the mobile station enters or exits one of the special areas, and (iii) both periodically when the mobile station remains into a special area and when the mobile station enters or exits one of the special areas, (emphasis added)

Firstly, this feature makes clear that it is the mobile station that sends the updating signal. New claim 18 makes is quite clear that it is not any other component that sends the updating signal.

Secondly, it is also clear from feature (d) that the mobile station itself determines its presence in a special area. This is also embodied in feature (c) of new claim 18, which literally reads that the mobile station determines its presence in a special area.

The mobile-centric approach of the present invention (as opposed to a network-centric approach of the prior art) is thus quite clearly defined in new claim 18.

Then, with respect to the updating signal being sent at least one of (i) periodically, (ii) when the mobile station enters or exits one of the special areas and (iii) both periodically when the mobile station remains into a special area and when the mobile station enters or exits one of the special areas, the following is noted:

Linkola does not disclose that a mobile station sends an updating signal regarding its presence in a special area, at least one of periodically or when the mobile station enters or exits or remains into one of the special areas, as recited in new claim 18. Rather, in Linkola always the sending of the compensation record is always linked to the moment of making a call. While location check may possibly be made periodically in Linkola, the presence determination information is only transferred to the rest of the mobile network at a single moment after initiating a call.

This is made very clearly in e.g. the abstract of Linkola. "*The locator object monitors calls made from the mobile station and, when it detects that a call is being made, it determines whether*

the mobile station was in a denoted special area at the time that its location was most recently determined."(emphasis added)

Further on, in the same abstract: "*Since the last location function was executed just before call setup commenced, a special rate call is possible even if the mobile station has thereafter moved some distance into a cell applying a normal rate*". (emphasis added) It is thus very clear that the determining moment is the moment of establishing a phone call. The updating signal is neither sent periodically, nor when entering or exiting a special area.

The last few lines of the same abstract also leaves no room for doubt: "*In this way, the second object can identify from the billing records those calls that are entitled to a special rate, regardless of whether the mobile station has moved during call setup from the original cell into a cell where another rate, e.g. a higher rate, is applicable."* (emphasis added) Again, the updating signal is neither sent periodically, nor when entering or exiting a special area.

Further basis may be found in Linkola in col. 5, lines 5 – 14: "*The locator object monitors the calls originating from the mobile station and, when it detects the start of a call, it determines whether the mobile station was in a cell or area with a special charging rate at the time at which the location function was last executed. If so, then the object will inform the network that the call is entitled to a special rate. Because the last location function has been executed before the commencement of call setup, charging of the call at a special rate is possible even if the mobile station has subsequently moved some distance into the area of a cell applying a normal rate".*

Again, even though the location check may be performed periodically, the updating signal is not sent periodically (or when entering or remaining into or exiting a special area) as recited in new claim 18.

Also col. 8, lines 34 – 36 is consistent: "*When the locator object detects that the user is entering a telephone number and that the most recent location check indicates that the mobile station is currently (or at least, was at the time of that check) in an area in which a special charging rate is applicable, it creates a record of the call data record type, here designated as a compensation record*."

With respect to the passages cited by the Examiner in connection with this feature, the following is noted:

Col. 9, line 60 – col. 10, line 21 explains that the locator object, at regular time intervals, may send a PROVIDE LOCAL INFORMATION message. Upon receipt of the response, the locator objects checks whether the cell identity received means that at this point in time, that it is currently present in a cell for which the operator has set a special charging rate for calls originated from that cell. In such case, the location data is stored to memory, and the procedure is repeated periodically.

This passage only makes clear that periodically, in the sense of claim 18, the presence in a special area is checked. This passage does not mention anything about an updating signal being sent by a mobile station.

- col. 10, line 64 – col. 11, line 10: "*During the call, the locator object transfers the compensation record to the mobile equipment, which in turn sends it over the network to the mobile equipment, which in turn sends it over the network to the billing object during the call*". In as far as this can be understood as an updating signal it is neither sent periodically, nor when entering, remaining or exiting a special area.
- claim 14: " (…)
  - *(i) repeatedly determining at predetermined time intervals a current location of the said each mobile station;*
  - *(ii) comparing the determined current location with (...) to determine whether the said each mobile station is currently located in the at least one of the coverage areas designated as a special area;*
  - (iii) *(...);*
  - (iv) *generating during a call originating from said each mobile station, where the originating call is initiated from said each mobile station while the location data is stored in the memory, a compensation record (...)*"

(emphasis added)

In step (i) of claim 14 (in combination with step (ii)), the location in a special area is determined (when the locator object detects that a call is being made). This is done periodically according to claim 14. However, this does not correspond to sending an updating signal periodically.

Step (iv) of claim 14 clearly links the generation of a compensation record (which is the most similar to an updating signal in the sense of new claim 18) to a phone call being made. Again, the updating signal is not sent periodically.

In conclusion, nowhere in Linkola is there a mention or even a hint of an updating signal being sent either periodically, or when entering or remaining or exiting a special area or both.

In Linkola, there is only transmission of information about the special area from which a phone call is initiated (if in the last determination prior to the phone call, the MS was indeed present in such a special area) and it is made once (not periodically) in connection to the entire phone call duration. In Linkola, there is no mention of a plurality of special areas, or any hint of a special area in which a special service is offered (rather than a discount rate for a phone call).

There is thus generally no need to send information about a plurality of special areas. Nor is there a capability to do something with such information. If a user enters another special area during a phone call, according to the teaching of Linkola, this would go entirely unnoticed. The present invention provides improved flexibility to a mobile telephone network and the ability to offer a plurality of special areas, each with its own characteristics.

These features that are missing from Linkola, are also not provided by Muhonen. Muhonen bases the determination of whether an MS is in a special area or not on which base station is used (see e.g. col. 2, lines 24 – 43; also see abstract: "A radio control element (BSC1, BSC2) determines whether the mobile station (MS) is in a special cell").

This means that a MS could be in a special area, but if due to traffic or quality constraints, the call is routed through another base station, the MS does not have access to a special tariff or service. As such, Muhonen teaches a network-centric approach for the determination of whether a MS is in a special area or not. New claim 18 (and Linkola) teach a method that allows the MS itself to determine whether or not it is present in a special area.

A MS according to Muhonen never sends an updating signal. Also, with the teaching of Muhonen, it is not possible for a MS to be in two or more special areas at the same time. Since the special area by definition is covered by the base station through which a call is routed, no determination of the possible presence in another special area is or can possibly be made.

In conclusion, neither Muhonen, nor Linkola teach:

the mobile station sending an updating signal about the presence in a special area, periodically and/or when the mobile station enters into and/or remains into and/or exits from one of the special areas.

The *prima facie* case for obviousness thus fails.

In addition, even if all the features of the claim were provided by the combination of Muhonen and Linkola, then there still would be no straightforward way for combining Linkola with Muhonen on these aspects, since they have completely opposite teachings when it comes to the determination of the presence in a special area.

With respect to Atorf, it is noted that in Atorf the mobile station cannot analyze its presence in a special area, it merely forwards a received signal. As such, the mobile station does not send any updating signal which is based on the determination of the presence in each of the special areas.

Therefore, the signal transmission as taught in Atorf is completely different and unrelated to the generation of a compensation record of Linkola. Contrary to the suggestion of the Examiner, it would not be feasible to combine Linkola with Atorf, as this would lead to a nonsensical situation in which a "compensation record" (as taught by Linkola) would be generated regardless of whether an actual phone call is being made. Namely, by incorporating the teaching of Atorf in Linkola, supposedly a compensation record would have to be sent continuously when a signal indicating a presence in a special area is received. This is namely what is taught by Atorf.

In fact, the very nature of Linkola with the generation of the compensation record makes it absolutely indispensable for the "updating signal" (in as far as the compensation record

generation can be regarded as an updating signal) to be tied to the moment of making a phone call.

As a result of the above referred interview with the Examiner, the Applicant believes to understand that the Examiner would like the claims to reflect that "**the updating signal sending is uncorrelated to any mobile station phone call establishment**" so this wording has been included into new claims 18, 28, 30 and 31.

Dependent claims

The dependent claims should be considered novel and non-obvious at least for the reasons given above.

Independent claim 28:

Similar arguments as mentioned for new claim 18 also apply to new claim 28.

Linkola at least does not disclose a mobile station with transmission means for sending periodically and/or when the mobile station enters into and/or remains into and/or exits from one of the special areas, an updating signal regarding the presence of the mobile station in each of the special areas from the processing means to the special operating means.

Also Muhonen does not teach this limitation.

Independent claim 30:

Similar arguments as mentioned for new claim 18 also apply to new claim 30. Linkola at least does not disclose a mobile station that is able to determine whether or not it is present in one or more special areas, and send an updating signal about its presence status periodically and/or when the mobile station enters into and/or remains into and/or exits from one of the special areas.

EXEMPLARY USE CASES

The Applicant believes to understand that the Examiner also considers appropriate to provide further explanation about the use cases included into our response to the previous Office Action. In order to comply with it and to complement above arguments, more detailed use cases are herein below provided.

In particular, sections below provide systems examples to make clear that the current wording under new claim 18 ("...said updating signal being sent at least one of (i) periodically (ii) when the mobile station enters or exists one of the special areas, and (iii) both periodically when the mobile station remains into a special area and when the mobile station enters or exists one of the special areas...") is not anticipated by Linkola. The following examples are provided:

a) Pages 15 to 17: a system operating according to Linkola;
b) Pages 17 to 19: a system operating under (iii) above versus Linkola;
c) Pages 19 and 20: a system operating under (i) above versus Linkola (this example also include feedback to the Examiner specific views);
d) Page 20: a system operating under (ii) above versus Linkola;

to clarify that none of those systems protected by the invention are anticipated by Linkola.

The different system processes into figures 4 and 5 of the published version of the present application, US 2010/0190508, has now been named and are included into ANNEX 1 of this response, as the Applicant understand is required by the Examiner.

1. MS Entering a Special Area In Linkola

Linkola does not disclose that a mobile station sends an updating signal regarding its presence in a special area, at least one of periodically or when the mobile station enters, remains or exits one of the special areas, as recited in new claim 18. Rather, in Linkola always the sending of the compensation record is always linked to the moment of making a call. While the check of

location into a special area may possibly be made periodically in Linkola, this information is only transferred to the rest of the mobile network at a single moment after initiating a call.

In the case that the last determination prior to initiating a phone call of the MS was that the MS was in a special area, then under the Linkola system a compensation record associated with the initiated call is sent to the mobile telephone network. The compensation record associated with the phone call is built at a mobile station locator element and comprises "location data and data identifying the originating call." See, for example, Linkola at 8:34 -44. Thus, the sending of the updating signal is ***neither periodical nor resulting from entering, remaining into or exiting a special area.***

Figure 1.a provided below illustrates the Linkola process of a mobile station (MS) entering in Special Area 1 (SA1) at instant t = i, and sending the compensation record to the mobile telephony network at instant t = m, e.g. just after the phone call is established:

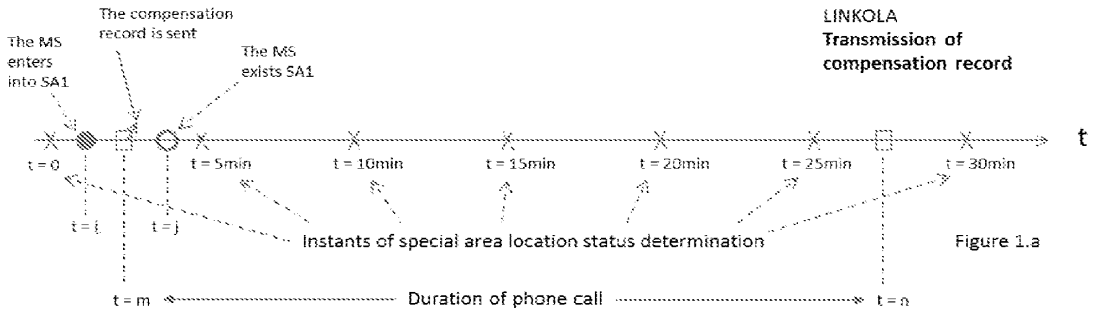


Figure 1.a

Even if the MS exits SA1 at t = j, Linkola special pricing remains until **t = n** when the phone call ends. Thus, the Linkola signal containing the compensation record is not a presence updating signal in the sense of new claim 18 but just a single signal providing a location status for special or normal pricing for the entire phone call. The result of location determinations at t = 5min, 10min, 15min… are irrelevant in Linkola; they have no further impact on the pricing to be applied to the entire phone call.

Thus, under Linkola, in the case that the last determination prior to an initiated phone call results that the mobile station is not in the special area, then the entire phone call is quoted at normal

price rates, ***regardless of whether the mobile station later enters into a special area with a reduced price***.

In Linkola, the compensation record may be sent either during the phone call, or at the end of the phone call. But the compensation record is not at all affected by a user entering into another special area, exiting a first area, remaining in it or reentering at a later stage.

The examiner pointed out during the above referred interview that the characteristic of "sending the updating signal periodically" (referred to the scenario under new claim 18, bullet c), item (i) of the invention) is anticipated by Linkola as follows:

- *Linkola (column 9, line 60, a column 10, line 21): at regular time intervals, the locator object requests for location data and stores the location data if the location data received matches the data in the stored list indicating that the mobile equipment is in a cell with a special charging rate;*
- *Linkola (col. 10, line 64 a col. 11, line 10): during the call, the locator object transfers the compensation record to the mobile equipment, which in turn sends it over the network to the billing object during the call.*
- *Also, Linkola claim 14: a locator object in each said mobile station for: (i) repeatedly determining at predetermined time intervals a current location of the said each mobile station.*

The above paragraph are very precise pointing out that location check may be made periodically in Linkola (as detailed under the first and the third paragraphs above) but the updating signal is sent only once in connection to a "phone call related" compensation record sent after the phone call establishment (as detailed in the second paragraph above). Figure 1 is very illustrative in this respect: while location check is made in Linkola at t = 0, t = 5min, t = 10min, t = 15min, t = 25min and t = 30min, the compensation record is only sent once at t = m. So please kindly note that Linkola never send an updating signal periodically.

2. MS Entering a Special Area According to the Embodiments of the Invention

In stark contrast to the Linkola approach is an exemplary process according to an embodiment of the present invention, corresponding to what is illustrated in Figure 1.b below. This

Figure illustrates the process of an MS entering into SA1 at instant t = i according to new claim 18 of the present invention:

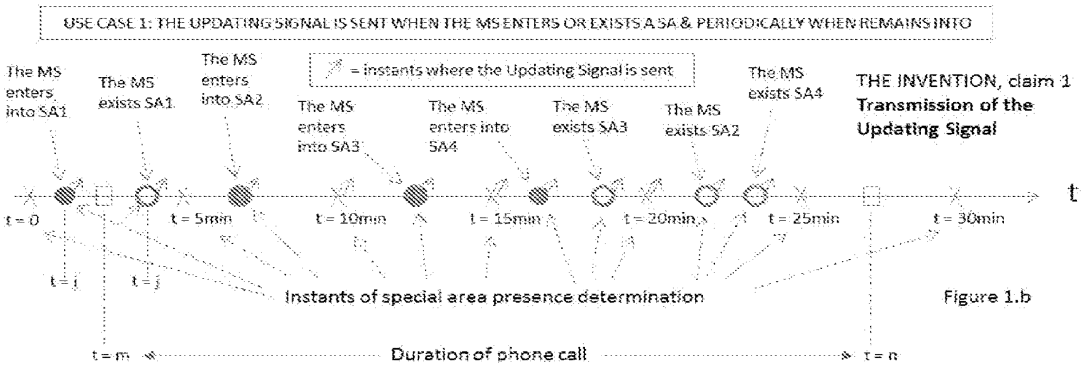


Figure 1.b

As shown, the system is configured such that a presence updating signal is sent to the mobile telephony network when the MS enters or exists a special area and also periodically when the MS remains in an SA. Thus, for example, special pricing associated with SA1 is only applied to the part of the phone call from t = m to t = j; the rest of the phone call will not be tariffed at SA1 special pricing. So presence-based phone call pricing can be achieved according to the process of the claimed invention, but not using the Linkola system.

It is further noted that in the example of Figure 1.b, the user of the system of the invention is subscribed to services associated with presence in different special areas, as follows:

- SA1: special phone calls tariff at price T1
- SA2: right to receive maintenance information from home utilities equipped with an invention Wireless Device and sending it from the MS to the utilities service provider
- SA3: special 3G connectivity wide band.
- SA4: special phone calls tariffs at price T2

The above provided example thus shows 11 instants where an updating signal according to the invention is sent to the mobile telephony network, each one of those containing presence determination information, as follows:

Instant	**Event**
t = i	MS entering into SA1 and starting with T1 phone call tariff;
t = j	MS existing SA1 and returning to regular phone call tariff ;
t = 7min	MS entering into SA2;
t = 10min	MS remaining into SA2 (and sending home utilities maintenance information if and when applicable);
t = 12min	MS entering at SA3 (so having access to a wider 3G modem wide band) and remaining at SA2;
t = 15min	MS remaining at SA2 and SA3;
t = 16 min	MS entering at SA4 (so starting with T2 tariff for that part of the mobile phone call) and remaining at SA2 and SA3;
t = 18 min	MS existing SA3 and remaining at SA2 and SA4;
t = 20 min	MS remaining at SA2 and SA4;
t = 22min	MS exiting SA2 and remaining at SA4;
t = 24min	MS exiting SA4 (so returning to regular phone call tariff);

Thus, as shown, in various examples of the present invention, using the updating signal it is possible to (a) generate and send information about simultaneous presence of the MS at several user special areas; (b) independently of any phone call establishment; and (c) according to presence status criteria: entering, exiting or remaining at SAs. Linkola's compensation record signal is not able to match either (a), (b), or (c), and thus Linkola cannot teach the method of claim 1.

The figure 1.c below shows another exemplary process according to an embodiment of the present invention. This process only diverge from the one described in connection to figure 1.b in that now the updating signal is sent periodically (according to option (i) into bullet (d) of new claim 18 of the invention). Thus an updating signal about whether the mobile station is present in one or more special areas is sent at instants t = 0min, t = 5min, t = 10min, t = 15min, t = 25min and t = 30min. Please note, in connection to the example of figure 1.a, that the compensation record of Linkola is only sent at instant t = m. So, as already mentioned above, the feature of sending the updating signal periodically is not anticipated by Linkola.

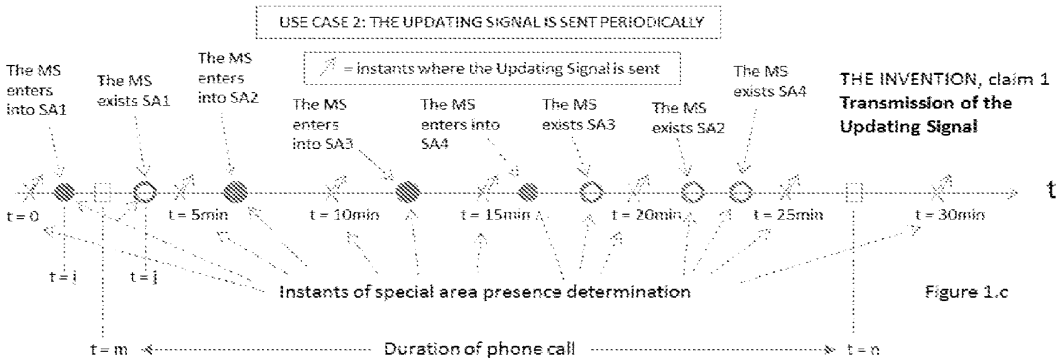


Figure 1.c

The figure 1.d below shows another exemplary process according to an embodiment of the present invention. This process only diverge from the one described in connection to figure 1.b in that now the updating signal is sent when the mobile station enters into one of the special areas (according to option (ii) into bullet (d) of new claim 18 of the invention). Thus an updating signal is sent at the fourth instants shown in figure 1.d below. Please note again, in connection to the example of figure 1.a, that the compensation record of Linkola is only sent at instant t = m. So the feature of sending the updating signal when the mobile station enters or exists one of the special areas is not anticipated by Linkola.

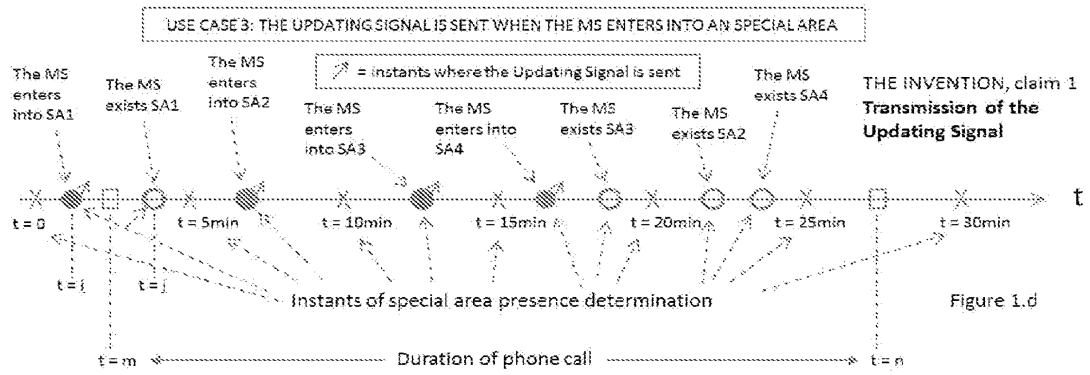


Figure 1.d

It is respectfully submitted that this application is condition for allowance. Early issuance of a Notice of Allowance is respectfully solicited.

If the Examiner is of the opinion that the prosecution of this application would be advanced by a personal interview, the Examiner is invited to telephone the undersigned counsel to arrange for such an interview.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Dated: October 29, 2013

Respectfully submitted,

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FIG_4

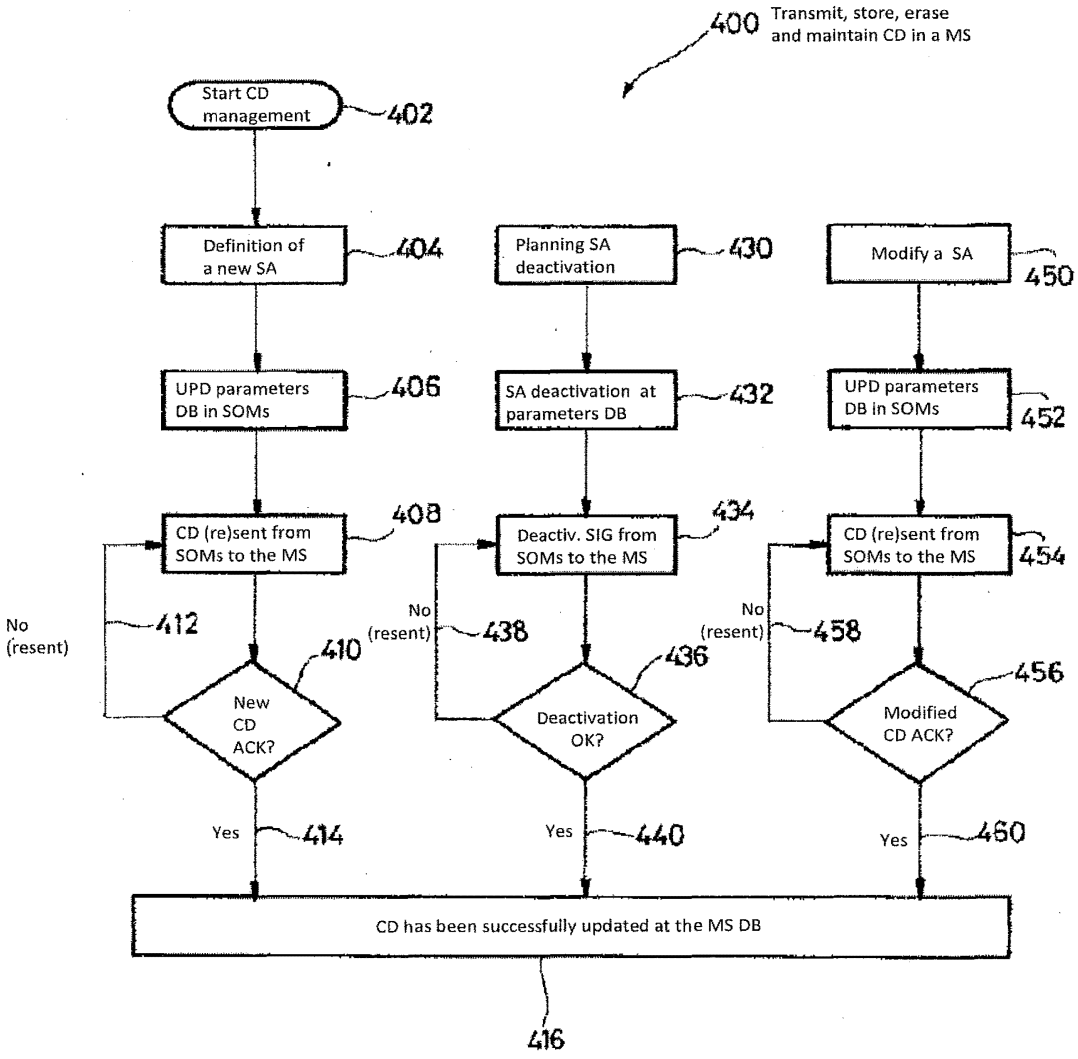
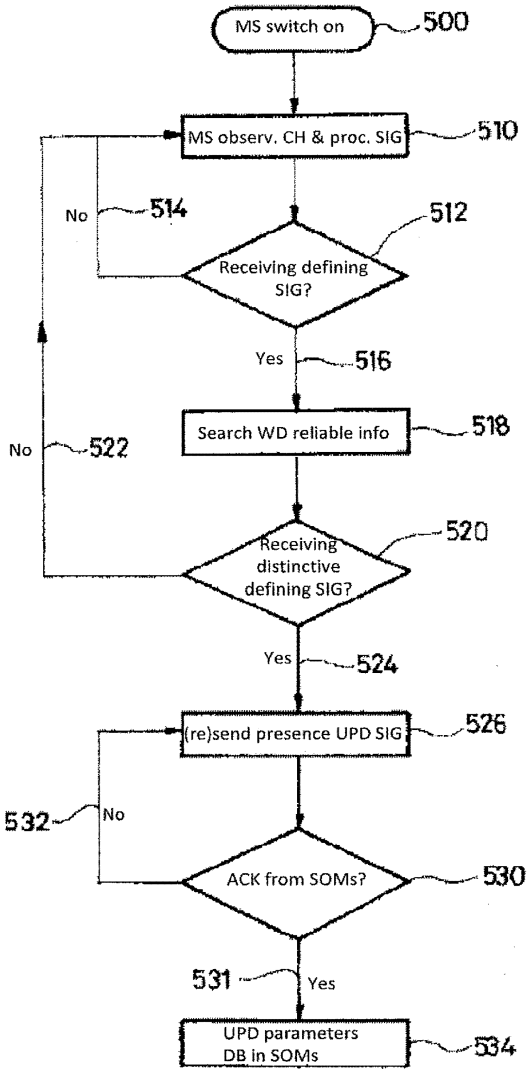

400
Transmit, store, erase and maintain CD in a MS
Start CD management
402
Definition of a new SA
404
UPD parameters DB in SOMs
406
CD (re)sent from SOMs to the MS
408
No (resent)
412
New CD ACK?
410
Yes
414
Planning SA deactivation
430
SA deactivation at parameters DB
432
Deactiv. SIG from SOMs to the MS
434
No (resent)
438
Deactivation OK?
436
Yes
440
Modify a SA
450
UPD parameters DB in SOMs
452
CD (re)sent from SOMs to the MS
454
No (resent)
458
Modified CD ACK?
456
Yes
460
CD has been successfully updated at the MS DB
416

FIG_5


MS switch on
500
MS observ. CH & proc. SIG
510
No
514
512
Receiving defining SIG?
Yes
516
Search WD reliable info
518
No
522
Receiving distinctive defining SIG?
520
Yes
524
(re)send presence UPD SIG
526
532
No
ACK from SOMs?
530
531
Yes
UPD parameters DB in SOMs
534

Electronic Patent Application Fee Transmittal

Application Number:	12294641
Filing Date:	12-Apr-2010
Title of Invention:	METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECIAL AREA
First Named Inventor/Applicant Name:	Carlos Alberto P¿rez Lafuente
Filer:	Jeffri Kaminski/l hayes
Attorney Docket Number:	122358-348870

Filed as Small Entity

U.S. National Stage under 35 USC 371 Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Independent claims in excess of 3	2614	1	210	210
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension - 1 month with $0 paid	2251	1	100	100
Miscellaneous:				
		Total in USD ($)		**310**

Electronic Acknowledgement Receipt

EFS ID:	17250888
Application Number:	12294641
International Application Number:	
Confirmation Number:	1871
Title of Invention:	METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECIAL AREA
First Named Inventor/Applicant Name:	Carlos Alberto P¿rez Lafuente
Customer Number:	26694
Filer:	Jeffri Kaminski/l hayes
Filer Authorized By:	Jeffri Kaminski
Attorney Docket Number:	122358-348870
Receipt Date:	29-OCT-2013
Filing Date:	12-APR-2010
Time Stamp:	10:42:54
Application Type:	U.S. National Stage under 35 USC 371

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$310
RAM confirmation Number	11134
Deposit Account	220261
Authorized User	

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Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Extension of Time	eot.pdf	89060 6737b67ad32b6f32283861dd5274c55c59fe2312	no	1
Warnings:					
Information:					
2		amendment.pdf	410390 40949e43e82e8850a4fa7c845de912f49fcb1dd1	yes	21

Multipart Description/PDF files in .zip description

Document Description	Start	End
Amendment/Req. Reconsideration-After Non-Final Reject	1	2
Claims	3	7
Applicant Arguments/Remarks Made in an Amendment	8	21

Warnings:					
Information:					
3	Drawings-only black and white line drawings	replacementdrwgs.pdf	87658 601f3c2f83481bb7d8c532954546c4551bcf3c6b	no	2
Warnings:					
Information:					
4	Fee Worksheet (SB06)	fee-info.pdf	32605 e1c550e8484533c04909183568a220445293edcc	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	619713		

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If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/22 (03-13)
Approved for use through 03/31/2013. OMB 0651-0031
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PETITION FOR EXTENSION OF TIME UNDER 37 CFR 1.136(a)	Docket Number (Optional) 122358-348870
Application Number 12/294,641-Conf. #1871	Filed April 12, 2010
For METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECIAL AREA	
Art Unit 2617	Examiner J. Chang

This is a request under the provisions of 37 CFR 1.136(a) to extend the period for filing a reply in the above-identified application.

The requested extension and fee are as follows (check time period desired and enter the appropriate fee below):

	Fee	Small Entity Fee	Micro Entity Fee	
[x] One month (37 CFR 1.17(a)(1))	$200	$100	$50	$ 100.00
[ ] Two months (37 CFR 1.17(a)(2))	$600	$300	$150	$
[ ] Three months (37 CFR 1.17(a)(3))	$1,400	$700	$350	$
[ ] Four months (37 CFR 1.17(a)(4))	$2,200	$1,100	$550	$
[ ] Five months (37 CFR 1.17(a)(5))	$3,000	$1,500	$750	$

[x] Applicant asserts small entity status. See 37 CFR 1.27.

[ ] Applicant certifies micro entity status. See 37 CFR 1.29.
Form PTO/SB/15A or B or equivalent must either be enclosed or have been submitted previously.

[ ] A check in the amount of the fee is enclosed.

[ ] Payment by credit card. Form PTO-2038 is attached.

[x] The Director has already been authorized to charge fees in this application to a Deposit Account.

[x] The Director is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account Number 22-0261 .

[ ] Payment made via EFS-Web.

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

I am the

[ ] applicant/inventor.

[ ] assignee of record of the entire interest. See 37 CFR 3.71. 37 CFR 3.73(b) statement is enclosed (Form PTO/SB/96).

[x] attorney or agent of record. Registration number 42,709 .

[ ] attorney or agent acting under 37 CFR 1.34. Registration number .

/Jeffri A. Kaminski/	October 29, 2013
Signature	Date
Jeffri A. Kaminski	(202) 344-4000
Typed or printed name	Telephone Number

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. Submit multiple forms if more than one signature is required, see below*.

[ ] *Total of 1 forms are submitted.

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 12/294,641	Filing Date 04/12/2010	☐ To be Mailed

ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 = *		X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 = *		X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT	10/29/2013	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 14	Minus	** 20	= 0	X $40 =	0
	Independent (37 CFR 1.16(h))	* 4	Minus	***3	= 1	X $210 =	210
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	**210**

AMENDMENT		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE
/DESHONNE T. MARTINO/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Document code: WFEE

United States Patent and Trademark Office
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DMARTINO SALE #00000001 Mailroom Dt: 10/29/2013 220261 12294641
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/294,641	04/12/2010	Carlos Alberto P¿rez Lafuente	122358-348870	1871

26694 7590 09/18/2013

VENABLE LLP
P.O. BOX 34385
WASHINGTON, DC 20043-9998

EXAMINER	
CHANG, JEAN	
ART UNIT	**PAPER NUMBER**
2643	

NOTIFICATION DATE	DELIVERY MODE
09/18/2013	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTOMail@Venable.com
lahill@venable.com
ksfeatherston@venable.com

Applicant-Initiated Interview Summary	**Application No.** 12/294,641	**Applicant(s)** P¿REZ LAFUENTE, CARLOS ALBERTO	
	Examiner JEAN CHANG	**Art Unit** 2643	

All participants (applicant, applicant's representative, PTO personnel):

(1) *JEAN CHANG*. (3)_____.

(2) *Jeffri A. Kaminski (reg. no. 42,709)*. (4)_____.

Date of Interview: *11 September 2013*.

Type: ☒ Telephonic ☐ Video Conference
☐ Personal [copy given to: ☐ applicant ☐ applicant's representative]

Exhibit shown or demonstration conducted: ☐ Yes ☒ No.
If Yes, brief description: _____.

Issues Discussed ☐101 ☐112 ☐102 ☒103 ☐Others
(For each of the checked box(es) above, please describe below the issue and detailed description of the discussion)

Claim(s) discussed: *1*.

Identification of prior art discussed: *Linkola, Muhonen, Atorf*.

Substance of Interview
(For each issue discussed, provide a detailed description and indicate if agreement was reached. Some topics may include: identification or clarification of a reference or a portion thereof, claim interpretation, proposed amendments, arguments of any applied references etc...)

The above mentioned applicant's representative initiated the interview to discuss potential amendments to overcome prior art rejections. Examiner suggested the applicant to review the specifications for support of applicant's prior remarks (page 9, Figure) and amend the independent claim, e.g., claim 1, step (d) accordingly and emphasize the mobile centric feature elements. The inputs were well received and applicant agreed to amend the claims (and fix the drawings) for further consideration..

Applicant recordation instructions: The formal written reply to the last Office action must include the substance of the interview. (See MPEP section 713.04). If a reply to the last Office action has already been filed, applicant is given a non-extendable period of the longer of one month or thirty days from this interview date, or the mailing date of this interview summary form, whichever is later, to file a statement of the substance of the interview

Examiner recordation instructions: Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

☐ Attachment

/Meless N Zewdu/ Primary Examiner, Art Unit 2643	

Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record
A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews
Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.
All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:
- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:
1) A brief description of the nature of any exhibit shown or any demonstration conducted,
2) an identification of the claims discussed,
3) an identification of the specific prior art discussed,
4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
5) a brief identification of the general thrust of the principal arguments presented to the examiner,
   (The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
6) a general indication of any other pertinent matters discussed, and
7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
12/294,641	04/12/2010	Carlos Alberto P¿rez Lafuente	122358-348870

CONFIRMATION NO. 1871

26694
VENABLE LLP
P.O. BOX 34385
WASHINGTON, DC 20043-9998

POA ACCEPTANCE LETTER

OC000000063068243

Date Mailed: 08/12/2013

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 08/01/2013.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

/tnnguyen/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
12/294,641	04/12/2010	Carlos Alberto P¿rez Lafuente	062403/00002

CONFIRMATION NO. 1871

POWER OF ATTORNEY NOTICE

31013
KRAMER LEVIN NAFTALIS & FRANKEL LLP
INTELLECTUAL PROPERTY DEPARTMENT
1177 AVENUE OF THE AMERICAS
NEW YORK, NY 10036

OC000000063068220

Date Mailed: 08/12/2013

NOTICE REGARDING CHANGE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 08/01/2013.

- The Power of Attorney to you in this application has been revoked by the applicant. Future correspondence will be mailed to the new address of record(37 CFR 1.33).

/tnnguyen/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

PTO/SB/81 (01-09)
Approved for use through 11/30/2011. OMB 0651-0035
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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POWER OF ATTORNEY OR REVOCATION OF POWER OF ATTORNEY WITH A NEW POWER OF ATTORNEY AND CHANGE OF CORRESPONDENCE ADDRESS

Application Number	12/294,641-Conf. #1871
Filing Date	April 12, 2010
First Named Inventor	Carlos A. Perez Lafuente
Title	METHOD AND SYSTEM FOR MONITORING A MOBILE STATION
Art Unit	2617
Examiner Name	J. Chang
Attorney Docket No.	122358-348870

I hereby revoke all previous powers of attorney given in the above-identified application.

[ ] A Power of Attorney is submitted herewith.

OR

[X] I hereby appoint Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith: 26694

OR

[ ] I hereby appoint Practitioner(s) named below as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith:

Practitioner(s) Name	Registration Number	Practitioner(s) Name	Registration Number

Please recognize or change the correspondence address for the above-identified application to:

[X] The address associated with the above-mentioned Customer Number:

OR

[ ] The address associated with Customer Number:

OR

[ ] Firm or Individual Name

Address					
City		State		Zip	
Country		Telephone		Email	

I am the:

[X] Applicant/Inventor.

OR

[ ] Assignee of record of the entire interest. See 37 CFR 3.71.
Statement under 37 CFR 3.73(b) (Form PTO/SB/96) submitted herewith or filed on _____

SIGNATURE of Applicant or Assignee of Record

Signature		Date	29 May, 2013
Name	Carlos Alberto Perez Lafuente	Telephone	(34) 627442681
Title and Company			

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

[ ] *Total of 1 forms are submitted.

Electronic Acknowledgement Receipt

EFS ID:	16476459
Application Number:	12294641
International Application Number:	
Confirmation Number:	1871
Title of Invention:	METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECIAL AREA
First Named Inventor/Applicant Name:	Carlos Alberto P¿rez Lafuente
Customer Number:	31013
Filer:	Jeffri Kaminski/l hayes
Filer Authorized By:	Jeffri Kaminski
Attorney Docket Number:	062403/00002
Receipt Date:	01-AUG-2013
Filing Date:	12-APR-2010
Time Stamp:	14:00:18
Application Type:	U.S. National Stage under 35 USC 371

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Power of Attorney	POA348870.PDF	101966 ac77c94db7319bb9b31afc9ae7ab439e05e446bc	no	1

Warnings:	
Information:	

Total Files Size (in bytes):	101966

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/294,641	04/12/2010	Carlos Alberto P¿rez Lafuente	062403/00002	1871

31013 7590 06/13/2013

KRAMER LEVIN NAFTALIS & FRANKEL LLP
INTELLECTUAL PROPERTY DEPARTMENT
1177 AVENUE OF THE AMERICAS
NEW YORK, NY 10036

EXAMINER	
CHANG, JEAN	
ART UNIT	PAPER NUMBER
2643	

NOTIFICATION DATE	DELIVERY MODE
06/13/2013	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

klpatent@kramerlevin.com

Office Action Summary	Application No. 12/294,641	Applicant(s) P¿REZ LAFUENTE, CARLOS ALBERTO	
	Examiner JEAN CHANG	Art Unit 2643	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *5 November 2012*.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5)☒ Claim(s) *1-12 and 17* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1-12, 17* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some * c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Interim copies:

a)☐ All b)☐ Some c)☐ None of the: Interim copies of the priority documents have been received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

4) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on Nov. 5, 2012 has been entered.

Response to Arguments

2. Applicant's arguments with respect to amended claims 1, 11 and 17 and corresponding dependents have been considered but are moot in view of the new ground(s) of rejections.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a):

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows: *(See MPEP Ch. 2141)*

a. Determining the scope and contents of the prior art;
b. Ascertaining the differences between the prior art and the claims in issue;
c. Resolving the level of ordinary skill in the pertinent art; and
d. Evaluating evidence of secondary considerations for indicating obviousness or nonobviousness.

3. **Claims 1-4, 6, 8-12 and 17 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Linkola (US Patent No. 6,516,910) in view of Muhonen (US Patent No. 6,920,317) further in view of Atorf (US PGPUB No. 2002/0094801).**

Claim 1. (Currently Amended)

Linkola teaches

A method for monitoring the presence of a mobile station (FIG. 3:MS) *in one or more special areas associated with the mobile station, comprising:*

(a) at least one radio communication defining device (FIG. 3:BTS) *transmits a radio distinctive defining signal repeatedly in at least one channel* (col. 7, lines 29-59; col. 11, line 50 to col. 12, line 5; col. 10, lines 12-16),

(b) the mobile station observes the channel and processes any received signal in order to determine whether or not it is receiving a defining signal (col. 4, line 61 to col. 5, line 10; col. 7, lines 17-25; col. 7, line 60 to col. 8, line 33),

(c) the mobile station processes any received defining signal and determines whether or not the defining signal received is a distinctive defining signal that at

least partially defines one of the special areas, and determines whether or not it is present in one or more of the special areas (col. 4, line 61 to col. 5, line 10; col. 7, line 60 to col. 8, line 33)*;*

(d) the mobile station sends an updating signal to a mobile telephone network about its presence in one or more of the special areas (col. 5, lines 3-10; col. 8, lines 34-52; col. 10, line 64 to col. 11, line 5)*, the updating signal based on the last determination performed by the mobile station about its presence in each of the special areas, and said updating signal being sent at least one of (i) periodically* (col. 5, lines 3-10; col. 8, lines 34-52; col. 9, line 60 to col. 10, line 21, at regular time intervals, the locator object requests for location data and stores the location data if the location data received matches the data in the stored list indicating that the mobile equipment is in a cell with a special charging rate; col. 10, line 64 to col. 11, line 10, during the call, the locator object transfers the compensation record to the mobile equipment, which in turn sends it over the network to the billing object during the call. Also see claim 14, a locator object in each said mobile station for: (i) repeatedly determining at predetermined time intervals a current location of the said each mobile station, (ii) comparing, (iii) storing, (iv) generating during a call a compensation record associated with the originating call, (v) transmitting the generated compensation record)*, (ii) when the mobile station enters or exits one of the special areas, and (iii) both periodically and when the mobile station enters or exits one of the special areas.*

(e) the mobile telephone network routes the updating signal to special operating means that adapt the value of at least one operating parameter taking into account the presence of the mobile station in each of the special areas (col. 8, lines 52-59; col. 5, lines 18-26),

wherein the special areas are associated with the mobile station by a checking data stored in *the mobile station, and being used by the mobile stations for determining whether or not the defining signal received is a distinctive defining signal that defines, alone or with other distinctive defining signals, one or more of the special areas associated with the mobile station* (col. 5, lines 30-35; col. 4, line 61 to col. 5, line 10; col. 7, line 17 to col. 8, line 59).

Linkola does not elaborate on

at least one radio communication defining device transmits a radio distinctive defining signal repeatedly in at least one channel that *at least partially defines one of the special areas by its coverage,*

wherein the special areas are associated with the mobile station by *transmitting* a checking data *to* the mobile station*, this checking data being sent to any mobile station whose presence in the special areas is monitored.*

In the similar field of endeavor, Muhonen teaches

at least one radio communication defining device transmits a radio distinctive defining signal repeatedly in at least one channel that *at least partially defines one of the special areas by its coverage* (col. 2, lines 25-56),

wherein the special area is associated with the mobile station by *transmitting a checking data to* the mobile station*, this checking data being sent to any mobile station whose presence in the special areas is monitored* (col. 5, lines, 58-67; col. 2, lines 25-42).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Muhonen into the method of Linkola to include at least one radio communication defining device transmitting a radio distinctive defining signal repeatedly in at least one channel that at least partially defines one of the special areas by its coverage and to transmit a checking data such as localized service areas to the mobile station as taught by Muhonen so that the checking data may be stored and *used by the mobile stations for determining whether or not the defining signal received is a distinctive defining signal that defines, alone or with other distinctive defining signals, one or more of the special areas associated with the mobile station* as taught by Linkola.

The motivation to combine is so that the network operator may define the subscriber's localized service areas as stated by Muhonen (col. 5, lines 58-59).

Linkola in combination with Muhonen does not elaborate on
said updating signal being sent *(ii) when the mobile station enters or exits one of the special areas.*

In an analogous art, Atorf teaches
said updating signal being sent at least one of (i) periodically, *(ii) when the mobile station enters or exits one of the special areas* (paragraphs [0030] – [0031]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Atorf into the method of Linkola in combination with Muhonen to configure the
mobile station to send an updating signal to a mobile telephone network about its presence in one or more of the special areas, the updating signal based on the last determination performed by the mobile station about its presence in each of the special areas, and said updating signal being sent at least one of (i) periodically (as taught by Linkola and Atorf), (ii) when the mobile station enters or exits one of the special areas (as taught by Atorf), and (iii) both periodically and when the mobile station enters or exits one of the special areas.

The motivation to combine is to enable operation of a mobile telephone at different user rates that are dependent on the instantaneous location as stated by Atorf (paragraph [0001]).

Claim 2.

Linkola in combination with Muhonen and Atorf teach

The method according to claim 1, wherein the special area is deactivated for the mobile station (Muhonen, col. 5, lines 37-46) *by the mobile telephone network sending a deactivation signal to the mobile station to stop the mobile station from recognizing a defining signal that defines that special area as a distinctive one* (Muhonen, col. 5, lines 58-59, lines 66-67).

The motivation to combine is so that the network operator may control and define the subscriber's localized service area as stated by Muhonen (col. 5, lines 58-59).

Claim 3.

Linkola in combination with Muhonen and Atorf teach *the method according to claim 1.*

Linkola in combination with Muhonen and Atorf does not elaborate on *wherein the special operating means acknowledge the reception of the updating signal and transmit an acknowledgement signal to the mobile station.*

On the other hand, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Linkola in combination with Muhonen and Atorf to configure *the special operating means* to *acknowledge the reception of the updating signal and transmit an acknowledgement signal to the mobile station* without exercising an inventive step as such communication protocol is well known in the art and to confirm the presence of the mobile station in the special area.

Claim 4.

Linkola in combination with Muhonen and Atorf teach

The method according to claim 1, wherein at least one radio communication defining device is a wireless device whose radio distinctive defining signal is a distinctive wireless signal transmitted by the wireless device (Muhonen, col. 2, lines 25-33) *in a frequency range outside the frequency range allocated for the mobile telephone network* (Atorf, paragraphs [0027] – [0030], [0035], [0023] – [0024]),

the said distinctive wireless signal containing wireless device identification data and reliable information confirming that the wireless device is effectively located into a predetermined environment (Atorf, paragraphs [0023] – [0024], [0035]; Linkola, col. 7, lines 29-59),

and the checking data associated with this wireless device including the wireless device identification data (Linkola, col. 8, lines 60-65; Muhonen, col. 5, lines 58-67, lines 38-40).

The motivation to combine is to enable operation of a mobile telephone at different user rates that are dependent on the instantaneous location as stated by Atorf (paragraph [0001]).

Claim 6.

Linkola in combination with Muhonen and Atorf teach

The method according to claim 1, wherein at least one radio communication defining device is a base station whose radio distinctive defining signal is a distinctive base station identity signal comprising an identification code of the base station, the checking data associated with this base station includes this base station identification code (Linkola, col. 7, lines 29-65; col. 8, lines 12-33).

Claim 8.

Linkola in combination with Muhonen and Atorf teach

The method according to claim 1, wherein the operating parameter is a tariff flag or a service flag that enables or disables a special tariff or a service for the mobile station (Muhonen, col. 5, line 46).

The motivation to combine is so that the network operator may control and define the subscriber's localized service area as stated by Muhonen (col. 5, lines 58-59).

Claim 9.

Linkola in combination with Muhonen and Atorf teach

The method according to claim 1, wherein the updating signal includes a request to access a service or multimedia content (Atorf, paragraph [0030], a request for different charging rate is implied by the mobile station sending the signals 10 to the base station of the mobile radio network indicating that the mobile station is within the range R of the fixed station) *and the mobile telephone network routes this request to a part of the special operating means that allow or forbid the provision of this service or multimedia content depending on whether or not the mobile station is into the special area* (Atorf, paragraph [0030]).

The motivation to combine is to enable operation of a mobile telephone at different user rates that are dependent on the instantaneous location as stated by Atorf (paragraph [0001]).

Claim 10.

Linkola in combination with Muhonen and Atorf teach

The method according to claim 1, wherein the mobile station receives the checking data from the mobile telephone network or a signal of a at least one radio device or from manual input (Muhonen, col. 5, lines 58-59, lines 66-67).

The motivation to combine is so that the network operator may control and define the subscriber's localized service area as stated by Muhonen (col. 5, lines 58-59).

Claim 11. (Currently Amended)

Linkola teaches

A mobile system for monitoring the presence of a mobile station in <u>*one or more*</u> *special area*<u>*s*</u> *defined for this mobile station, said system comprising:*

at least one radio communication defining device (FIG. 3:BTS) *for* <u>*repeatedly*</u> *transmitting a radio distinctive defining signal in at least one channel* (col. 7, lines 29-59; col. 11, line 50 to col. 12, line 5; col. 10, lines 12-16),

<u>*special operating means for adapting the value of at least one operating parameter taking into account the presence of the mobile station in each of the special areas*</u> (col. 5, lines 18-26; col. 8, lines 52-59)<u>*, and*</u>

a mobile station (FIG. 3:MS), *comprising:*

storage for storing a checking data (col. 8, lines 12-16),

observing means for observing said at least one channel and

processing means for processing any received signal in order to determine whether or not the signal received is a defining signal and, if the signal received is a defining signal, for determining based on checking data whether or not the signal received is a distinctive defining signal and whether or not the mobile station is present in the special area (col. 4, lines 61 to col. 5, line 10; col. 7, lines 17-25; col. 7, line 60 to col. 8, line 33)*, and,*

transmission means for sending, at least one of (i) periodically (col. 5, lines 3-10; col. 8, lines 34-52; col. 9, line 60 to col. 10, line 21, at regular time intervals, the locator object requests for location data and stores the location data if the location data received matches the data in the stored list indicating that the mobile equipment is in a cell with a special charging rate; col. 10, line 64 to col. 11, line 10, during the call, the locator object transfers the compensation record to the mobile equipment, which in turn sends it over the network to the billing object during the call. Also see claim 14, a locator object in each said mobile station for: (i) repeatedly determining at predetermined time intervals a current location of the said each mobile station, (ii) comparing, (iii) storing, (iv) generating during a call a compensation record associated with the originating call, (v) transmitting the generated compensation record)*, (ii) when the mobile station enters or exits one of the special areas, and (iii) both periodically and when the mobile station enters or exits one of the special areas an updating signal regarding the presence of the mobile station in one or more of the special areas*

from the processing means to the special operating means (col. 5, lines 3-10; col. 8, lines 34-52; col. 10, line 64 to col. 11, line 5).

Linkola does not elaborate on

at least one radio communication defining device for repeatedly transmitting a radio distinctive defining signal *that at least partially defines one of the special areas* in at least one channel.

In the similar field of endeavor, Muhonen teaches

at least one radio communication defining device for repeatedly transmitting a radio distinctive defining signal *that at least partially defines one of the special areas* in at least one channel (col. 2, lines 25-56),

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Muhonen into the method of Linkola to include at least one radio communication defining device for transmitting repeatedly a radio distinctive defining signal that at least partially defines the special area in at least one channel.

The motivation to combine is so that the network operator may define the subscriber's localized service areas as stated by Muhonen (col. 5, lines 58-59).

Linkola in combination with Muhonen does not elaborate on transmission means for sending, *(ii) when the mobile station enters or exits one of the special areas,* an updating signal regarding the presence of the mobile station in one or more of the special areas from the processing means to the special operating means.

In an analogous art, Atorf teaches transmission means for sending, at least one of (i) periodically, *(ii) when the mobile station enters or exits one of the special areas* (paragraphs [0030] – [0031]) an updating signal regarding the presence of the mobile station in one or more of the special areas from the processing means to the special operating means.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Atorf into the method of Linkola in combination with Muhonen to configure the mobile station to send an updating signal to a mobile telephone network about its presence in one or more of the special areas, at least one of (i) periodically (as taught by Linkola and Atorf), (ii) when the mobile station enters or exits one of the special areas (as taught by Atorf), and (iii) both periodically and when the mobile station enters or exits one of the special areas.

The motivation to combine is to enable operation of a mobile telephone at different user rates that are dependent on the instantaneous location as stated by Atorf (paragraph [0001]).

Claim 12. (Currently Amended)

Linkola in combination with Muhonen and Atorf teach

The mobile system according to claim 11, wherein the mobile system comprises special area location monitoring means for monitoring the correct location of at least a part of one or more of the special areas (Linkola, col. 4, line 61 to col. 5, line 10; col. 7, lines 17-25; col. 7, line 60 to col. 8, line 33; Atorf, paragraphs [0027] – [0033]).

Claims 13-16. (Cancelled)

Claim 17. (Currently Amended)

Linkola teaches

A mobile station (FIG. 3:MS)*, that is adapted to observe a channel and processes any received signal in order to determine whether or not it is receiving a defining signal, to process any received defining signal and to determine, based on a previously obtained checking data, whether or not the defining signal received is a distinctive defining signal that at least partially defines a special area, to determine whether or not it is present in one or more special areas, and*

to send an updating signal *at least one of (i) periodically* (col. 5, lines 3-10; col. 8, lines 34-52; col. 9, line 60 to col. 10, line 21, at regular time intervals, the locator object requests for location data and stores the location data if the location data received matches the data in the stored list indicating that the mobile equipment is in a cell with a special charging rate; col. 10, line 64 to col. 11, line 10, during the call, the locator object transfers the compensation record to the mobile equipment, which in turn sends it over the network to the billing object during the call. Also see claim 14, a locator object in each said mobile station for: (i) repeatedly determining at predetermined time intervals a current location of the said each mobile station, (ii) comparing, (iii) storing, (iv) generating during a call a compensation record associated with the originating call, (v) transmitting the generated compensation record)*, (ii) when the mobile station enters or exits one of the special areas, and (iii) both periodically and when the mobile station enters or exits one of the special areas to a mobile telephone network about its presence in one or more of the special areas, said updating signal based on the last determination performed by the mobile station about its presence in the special areas* (col. 4, line 61 to col. 5, line 10; col. 7, line 17 to col. 8, line 56).

Linkola does not elaborate on

a distinctive defining signal that at least partially defines a special area.

In the similar field of endeavor, Muhonen teaches

a distinctive defining signal that at least partially defines a special area (col. 2, lines 25-56).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Muhonen into the method of Linkola to elaborate on radio communication defining device transmitting a radio distinctive defining signal repeatedly in at least one channel that at least partially defines a special area.

The motivation to combine is so that the network operator may define the subscriber's localized service areas as stated by Muhonen (col. 5, lines 58-59).

Linkola in combination with Muhonen does not elaborate on
to send an updating signal *(ii) when the mobile station enters or exits one of the special areas.*

In an analogous art, Atorf teaches
to send an updating signal at least one of (i) periodically, *(ii) when the mobile station enters or exits one of the special areas* (paragraphs [0030] – [0031]), said updating signal based on the last determination performed by the mobile station about its presence in the special areas.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Atorf into the method of Linkola in combination with Muhonen to configure the
mobile station to send an updating signal to a mobile telephone network about its presence in one or more of the special areas, at least one of (i) periodically (as taught by Linkola and Atorf), (ii) when the mobile station enters or exits one of the special areas (as taught by Atorf), and (iii) both periodically and when the mobile station enters or exits one of the special areas, said updating signal based on the last determination performed by the mobile station about its presence in the special areas.

The motivation to combine is to enable operation of a mobile telephone at different user rates that are dependent on the instantaneous location as stated by Atorf (paragraph [0001]).

4. **Claim 7 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Linkola (US Patent No. 6,516,910) in view of Muhonen (US Patent No. 6,920,317) further in view of Atorf (US PGPUB No. 2002/0094801) and further in view of Salmela et al. (US Patent No. 6,516,193).**

Claim 7.

Linkola in combination with Muhonen and Atorf teach

The method according to claim 1, wherein the special operating means comprise a value of at least one operational parameter of this set is adapted when an updating signal signalling that the mobile station exits or enters the special area is received (Atorf, paragraphs [0030] – [0031]; Linkola, col. 8, lines 52-56; Muhonen, col. 6, line 61 to col. 7, line 33).

Linkola in combination with Muhonen and Atorf does not elaborate on *wherein the special operating means comprise a parameters database linking the special area to the mobile station and to a set of one or more operating parameters.*

In the similar field of endeavor, Salmela et al. teach *wherein the special operating means comprise a parameters database linking the special area to the mobile station and to a set of one or more operating parameters* (col. 3, lines 16-18; col. 4, lines 11-28; col. 10, lines 1-22).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Salmela et al. into the teaching of Linkola in combination with Muhonen and Atorf to elaborate on a parameter database linking the special area to the mobile station.

The motivation to combine is to elaborate on the network databases used for providing locally tailored services or locally restricting connection of a mobile station to a network as stated by Salmela et al. (col. 3, lines 40-42).

5. **Claim 5 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Linkola (US Patent No. 6,516,910) in view of Muhonen (US Patent No. 6,920,317) further in view of Atorf (US PGPUB No. 2002/0094801) and further in view of Reynolds et al. (US Patent No. 6,826,414).**

Claim 5.

Linkola in combination with Muhonen and Atorf teach

The method according to claim 1, wherein at least one radio communication defining device is a base station whose radio distinctive defining signal is a distinctive signal comprising a special mobile telephone network identification code, the checking data associated with this base station including this special mobile telephone network identification code (Linkola, col. 7, line 29 to col. 8, line 33).

To be complete, in the similar field of endeavor, Reynolds et al. teach

that at least one radio communication defining device is a base station (FIG. 2:16, col. 4, lines 29-35, lines 39-42; col. 6, lines 26-31) *whose radio distinctive defining signal is a distinctive signal comprising a special mobile telephone*

network identification code, the checking data associated with this base station including this special mobile telephone network identification code (col. 4, lines 43-52).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Reynolds et al. into the teaching of Linkola in combination with Muhonen and Atorf to further elaborate on the distinctive wireless signal and the checking containing a special network identification code.

The motivation to combine is to reuse a mobile communication network for additional network portion for special service which can conveniently be distinguished by the use of different network identity code as stated by Reynolds et al. (col. 3, lines 24-29).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Chang whose telephone number is (571) 270-7979. The examiner can normally be reached on Mon-Thursday from 9:00-5:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Jinsong Hu can be reached on (571) 272-3965. The fax

phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Jean Chang/
Examiner, Art Unit 2643

/Meless N Zewdu/

Primary Examiner, Art Unit 2643

Notice of References Cited	Application/Control No. 12/294,641	Applicant(s)/Patent Under Reexamination P¿REZ LAFUENTE, CARLOS A	
	Examiner JEAN CHANG	Art Unit 2643	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2002/0094801 A1	07-2002	Atorf, Manfred	455/406
*	B	US-6,516,190 B1	02-2003	Linkola, Janne	455/408
*	C	US-6,516,193 B1	02-2003	Salmela et al.	455/432.3
*	D	US-6,826,414 B1	11-2004	Reynolds et al.	455/555
*	E	US-6,920,317 B1	07-2005	Muhonen, Ahti	455/405
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12294641	P REZ LAFUENTE, CARLOS ALBERTO
	Examiner	**Art Unit**
	JEAN CHANG	2617

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	09/26/2011	06/25/2012	06/02/2013						
	1	✓	✓	✓						
	2	✓	✓	✓						
	3	✓	✓	✓						
	4	✓	✓	✓						
	5	✓	✓	✓						
	6	✓	✓	✓						
	7	✓	✓	✓						
	8	✓	✓	✓						
	9	✓	✓	✓						
	10	✓	✓	✓						
	11	✓	✓	✓						
	12	✓	✓	✓						
	13	O	-	-						
	14	✓	-	-						
	15	✓	-	-						
	16	✓	✓	-						
	17	✓	✓	✓						

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	6	"lafuente, carlos".inv.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/02 23:49
L2	22527	455/456.4.ccls. or 455/555.ccls. or 455/408.ccls. or 455/432.2.ccls. or 455/406.ccls. or 455/458.ccls. or 455/414.1.ccls. or 455/446.ccls. or 455/456.1.ccls. or 455/433.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/02 23:51
L3	1222	(mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) same (presence or enter$4 or exit$4 or leav$4 or detect$4 or identify$4 or determin$4 or recogniz$4 or realiz$3 or check$3) near10 (special or limited or distint or different or preferred or discount or home) near10 ((service or tarrif or rate) or (area or coverage or location or zone)) same (send$4 or transmit$5 or transmi$6 or report$5 or notify$5) and (zone or (service area) or LSA)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/02 23:52
L4	197	L3 and (enter$4 or exit$4) near10 (zone or (service area))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/02 23:52
L5	0	L4 and l1	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/02 23:52
L6	59	L4 and l2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/02 23:52
S1	29	"6334052"	US-PGPUB; USPAT; USOCR;	ADJ	ON	2011/09/26 17:50

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S2	5	"6785536"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/26 17:55
S3	20	"6826414"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/26 17:56
S4	4	"20020094801"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 08:40
S5	4	"2000027152"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 08:42
S6	4	"7212804"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 08:44
S7	3	"20080004045"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 09:17
S8	3	"20030092450"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 09:20
S9	14589	(special or distint or different or preferred or discount) near10 (service or tarrif or rate) near10 (area or coverage)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 09:27
S10	2969	(special or distint or different or preferred	US-PGPUB;	ADJ	ON	2011/09/28

		or discount) near10 (service or tarrif or rate) near10 (area or coverage) same (signal or code or identifier or identification or parameter or flag)	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			09:29
S11	607	(special or distint or different or preferred or discount) near10 (service or tarrif or rate) near10 (area or coverage) same (signal or code or identifier or identification or parameter or flag) same ((base station) or cell or AP)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 09:30
S12	236	(special or distint or different or preferred or discount) near10 (service or tarrif or rate) near10 (area or coverage) same (signal or code or identifier or identification or parameter or flag) same ((base station) or cell or AP) and monitor	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 09:30
S13	308	(special or distint or different or preferred or discount) near10 (service or tarrif or rate) near10 (area or coverage) same (signal or code or identifier or identification or parameter or flag) same ((base station) or cell or AP) and (monitor or presence)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 09:31
S14	52	(special or distint or different or preferred or discount) near10 (service or tarrif or rate) near10 (area or coverage) same (signal or code or identifier or identification or parameter or flag) same ((base station) or cell or AP) and (monitor or presence) and multimedia	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 09:31
S15	1006	(special or distint or different or preferred or discount) near20 (service or tarrif or rate or billing or charg$3 or zone) near20 (area or coverage) same (signal or code or identifier or identification or parameter or flag) same ((base station) or cell or AP)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:44
S16	399	S15 not S11	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:44
S17	16	S16 and special service	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:45
S18	18	S16 and (special or distinct) (service or zone)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	ADJ	ON	2011/09/28 10:45

			IBM_TDB			
S19	19	S16 and (special or distinct) (service or zone or area)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:45
S20	313	455/456.4.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:48
S21	6	"lafuente, carlos".inv.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:48
S22	1	S20 and S16	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:49
S23	16	"6625442"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:49
S24	20	"6516193"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:52
S25	5	"6785536"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/30 18:40
S26	6	"6920317"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/30 18:42
S27	1182	(special or limited or distint or different or preferred or discount or home) near10 (service or tarrif or rate) near10 (area or coverage or location or zone) same	US-PGPUB; USPAT; USOCR; FPRS;	ADJ	ON	2012/06/21 10:39

		(signal or code or identifier or identification or parameter or flag) same ((base station) or cell or AP or device) same (wireless or mobile) and (monitor or presence)	EPO; JPO; DERWENT; IBM_TDB			
S28	15	(special or limited or distint or different or preferred or discount or home) near10 (service or tarrif or rate) near10 (area or coverage or location or zone) same (signal or code or identifier or identification or parameter or flag) same ((base station) or cell or AP or device) same (wireless or mobile) and (monitor or presence) near10 (mobile or wireless) (station or device or phone) near10 (determin$4 or recogniz$4 or realiz$3 or check$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2012/06/21 10:44
S29	368	455/456.4.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2012/06/21 11:35
S30	6	"lafuente, carlos".inv.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2012/06/21 11:36
S31	15	(special or limited or distint or different or preferred or discount or home) near10 (service or tarrif or rate) near10 (area or coverage or location or zone) same (signal or code or identifier or identification or parameter or flag) same ((base station) or cell or AP or device) same (wireless or mobile) and (monitor or presence) near10 (mobile or wireless) (station or device or phone) near10 (determin$4 or recogniz$4 or realiz$3 or check$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2012/06/21 11:36
S32	0	S31 and S29	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2012/06/21 11:36
S33	18	(special or limited or distint or different or preferred or discount or home) near10 (service or tarrif or rate) near10 (area or coverage or location or zone) same (signal or code or identifier or identification or parameter or flag) same ((base station) or cell or AP or device) same (wireless or mobile) and (monitor or presence) near10 (mobile or wireless) (station or device or phone) near10 (determin$4 or recogniz$4 or realiz$3 or check$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2012/06/25 01:08

S34	6	"lafuente, carlos".inv.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2012/06/25 01:10
S35	1	S33 and S34	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2012/06/25 01:10
S36	1	"12294641"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2012/06/25 18:36
S37	771	(mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) near10 (presence or enter$4 or exit$4 or leav$4 or detect$4 or identify$4 or determin$4 or recogniz$4 or realiz$3 or check$3) near10 (special or limited or distint or different or preferred or discount or home) near10 ((service or tarrif or rate) or (area or coverage or location or zone)) same (send$4 or transmit$5 or transmi$6) near10 (signal or code or identifier or identification or parameter or flag or messag$3) same ((base station) or cell or AP or device)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/01 12:34
S38	211	(mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) near10 (presence or enter$4 or exit$4 or leav$4 or detect$4 or identify$4 or determin$4 or recogniz$4 or realiz$3 or check$3) near10 (special or limited or distint or different or preferred or discount or home) near5 ((service or tarrif or rate) or (area or coverage or location or zone)) near10 (send$4 or transmit$5 or transmi$6) near10 (signal or code or identifier or identification or parameter or flag or messag$3) near10 ((base station) or cell or AP or device or network)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/01 12:38
S39	150	(mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) near10 (presence or enter$4 or exit$4 or leav$4 or detect$4 or identify$4 or determin$4 or recogniz$4 or realiz$3 or check$3) near10 (special or limited or distint or different or preferred or discount or home) near5 ((service or tarrif or rate) or (area or coverage or location or zone)) near10 (send$4 or transmit$5 or transmi$6)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	OFF	2013/06/01 12:49

		near10 (signal or code or identifier or identification or parameter or flag or messag$3) near10 ((base station) or cell or AP or device or network)				
S40	1	"12294641"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/01 13:53
S41	30	(mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) near10 (enter$4 or exit$4 or leav$4) near10 (special or limited or distint or different or preferred or discount or home) near5 ((service or tarrif or rate) or (area or coverage or location or zone)) near10 (send$4 or transmit$5 or transmi$6) near10 (signal or code or identifier or identification or parameter or flag or messag$3) near10 ((base station) or cell or AP or device or network)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	OFF	2013/06/01 19:14
S42	771	(mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) near10 (presence or enter$4 or exit$4 or leav$4 or detect$4 or identify$4 or determin$4 or recogniz$4 or realiz$3 or check$3) near10 (special or limited or distint or different or preferred or discount or home) near10 ((service or tarrif or rate) or (area or coverage or location or zone)) same (send$4 or transmit$5 or transmi$6) near10 (signal or code or identifier or identification or parameter or flag or messag$3) same ((base station) or cell or AP or device)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/01 19:20
S43	106	S42 and (location or zone or area) service	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/01 19:20
S44	11	(mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) near10 (presence or enter$4 or exit$4 or leav$4) near10 (special or limited or distint or different or preferred or discount or home) near10 ((service or tarrif or rate) (area or coverage or location or zone)) same (send$4 or transmit$5 or transmi$6) near10 (signal or code or identifier or identification or parameter or flag or messag$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/01 19:29
S45	19	(mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) near10 (presence or enter$4 or exit$4 or leav$4)	US-PGPUB; USPAT; USOCR; FPRS;	ADJ	ON	2013/06/01 19:30

		near10 (special or limited or distint or different or preferred or discount or home) near10 ((service or tarrif or rate) near5 (area or coverage or location or zone)) same (send$4 or transmit$5 or transmi$6) near10 (signal or code or identifier or identification or parameter or flag or messag$3)	EPO; JPO; DERWENT; IBM_TDB			
S46	81	(mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) near10 (presence or enter$4 or exit$4 or leav$4) near10 (special or limited or distint or different or preferred or discount or home) near10 ((service or tarrif or rate) near5 (area or coverage or location or zone)) and (LBS or (location near6 service))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/01 19:36
S47	81	(mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) near10 (presence or enter$4 or exit$4 or leav$4) near10 (special or limited or distint or different or preferred or discount or home) near10 ((service or tarrif or rate) near5 (area or coverage or location or zone)) and (LBS or ((location or geo$6) near6 service))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/01 19:36
S48	128	(mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) near10 (presence or enter$4 or exit$4 or leav$4) near10 (special or limited or distint or different or preferred or discount or home) near10 ((service or tarrif or rate) near5 (area or coverage or location or zone))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/01 19:59
S49	39	(mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) near10 (presence or enter$4 or exit$4 or leav$4) near10 (special or limited or distint or different or preferred or discount or home) near10 ((service or tarrif or rate) near5 (area or coverage or location or zone)) same (report$4 or send$4 or transmi$5 or notify$6)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/01 20:01
S50	128	(mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) near10 (presence or enter$4 or exit$4 or leav$4) near10 (special or limited or distint or different or preferred or discount or home) near10 ((service or tarrif or rate) near5 (area or coverage or location or zone))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/01 20:05
S51	89	S50 not S49	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	ADJ	ON	2013/06/01 20:07

			IBM_TDB			
S52	3	"2008171531"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/01 22:55
S53	2	"20080171531"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/01 22:55
S54	29	(US-20020094801-$ or US-20080004045-$ or US-20030092450-$ or US-20080261604-$ or US-20050148297-$ or US-20050075124-$ or US-20040224682-$ or US-20040192267-$ or US-20100167725-$ or US-20080171531-$).did. or (US-6334052-$ or US-6625442-$ or US-6785536-$ or US-6826414-$ or US-7778652-$ or US-7142869-$ or US-7171189-$ or US-6836653-$ or US-6516193-$ or US-6671506-$ or US-7634255-$ or US-7266366-$ or US-6920317-$ or US-6516190-$).did. or (WO-2007009297-$).did. or (WO-0027152-$ or WO-9858505-$ or WO-2007014714-$ or JP-2000050335-$).did.	US-PGPUB; USPAT; EPO; DERWENT	ADJ	ON	2013/06/01 23:06
S55	9	S54 and (enter$4 or exit$4 or leav$4) same (zone or (service area))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/01 23:07
S56	3822	(mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) same (presence or enter$4 or exit$4 or leav$4 or detect$4 or identify$4 or determin$4 or recogniz$4 or realiz$3 or check$3) near10 (special or limited or distint or different or preferred or discount or home) near10 ((service or tarrif or rate) or (area or coverage or location or zone)) same (send$4 or transmit$5 or transmi$6 or report$5 or notify$5)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/01 23:12
S57	1223	(mobile or wireless or electronic or communication) (station or device or phone or terminal or equipment) same (presence or enter$4 or exit$4 or leav$4 or detect$4 or identify$4 or determin$4 or recogniz$4 or realiz$3 or check$3) near10 (special or limited or distint or different or preferred or discount or home) near10 ((service or tarrif or rate) or (area or coverage or location or zone)) same (send$4 or transmit$5 or transmi$6 or report$5 or notify$5) and (zone or	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/01 23:14

		(service area) or LSA)				
S58	197	S57 and (enter$4 or exit$4) near10 (zone or (service area))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2013/06/01 23:16

6/2/2013 11:55:18 PM
C:\Users\jchang7\Documents\EAST\Workspaces\12294641.wsp

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12294641	P REZ LAFUENTE, CARLOS ALBERTO
	Examiner	Art Unit
	JEAN CHANG	2617

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
455	456.4	9/28/2011	jc
455	456.4	6/21/2012	jc
455	456.4, 555, 408, 432.2, 406, 458, 414.1, 446, 456.1, 433	6/2/2013	jc

SEARCH NOTES		
Search Notes	Date	Examiner
inventor search on East databases	9/28/2011	jc
search East databases for special/distint/different/preferred/discount service/tariff/rate/charging/billing service/area/zone base station/AP/area	9/28/2011	jc
inventor search on East databases	6/21/2012	jc
(special or limited or distint or different or preferred or discount or home) near10 (service or tarrif or rate) near10 (area or coverage or location or zone) same (signal or code or identifier or identification or parameter or flag) same ((base station) or cell or AP or device) same (wireless or mobile) and (monitor or presence) near10 (mobile or wireless) (station or device or phone) near10 (determin$4 or recogniz$4 or realiz$3 or check$3)	6/21/2012	jc
update inventor search and update text search on East databases	6/1-2/2013	jc

INTERFERENCE SEARCH

US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

PTO/SB/30 (07-09)
Approved for use through 07/31/2012. OMB 0651-0031
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Request for Continued Examination (RCE) Transmittal

Address to:
Mail Stop RCE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Application Number	12/294,641
Filing Date	April 12, 2010
First Named Inventor	LaFuente, Carlos Alberto Perez
Art Unit	2614
Examiner Name	Chang, Jean
Attorney Docket Number	062403-00002

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.
Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. See Instruction Sheet for RCEs (not to be submitted to the USPTO) on page 2.

1. Submission required under 37 CFR 1.114 Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

   a. ☐ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

      i. ☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____

      ii. ☐ Other _____

   b. ☑ Enclosed

      i. ☑ Amendment/Reply

      ii. ☐ Affidavit(s)/ Declaration(s)

      iii. ☐ Information Disclosure Statement (IDS)

      iv. ☐ Other _____

2. Miscellaneous

   a. ☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of _____ months. (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

   b. ☐ Other _____

3. Fees The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.

   a. ☑ The Director is hereby authorized to charge the following fees, any underpayment of fees, or credit any overpayments, to Deposit Account No. 50-0540 .

      i. ☑ RCE fee required under 37 CFR 1.17(e)

      ii. ☑ Extension of time fee (37 CFR 1.136 and 1.17)

      iii. ☐ Other _____

   b. ☐ Check in the amount of $ _____ enclosed

   c. ☐ Payment by credit card (Form PTO-2038 enclosed)

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

Signature	/Aaron S. Haleva/	Date	11/5/2012
Name (Print/Type)	Aaron S. Haleva	Registration No.	44,433

CERTIFICATE OF MAILING OR TRANSMISSION

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450 or facsimile transmitted to the U.S. Patent and Trademark Office on the date shown below.

Signature			
Name (Print/Type)		Date	

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**
If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PTO/SB/30 (07-09)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Instruction Sheet for RCEs

(not to be submitted to the USPTO)

NOTES:

An RCE is not a new application, and filing an RCE will not result in an application being accorded a new filing date.

Filing Qualifications:

The application must be a utility or plant application filed on or after June 8, 1995. The application cannot be a provisional application, a utility or plant application filed before June 8, 1995, a design application, or a patent under reexamination. See 37 CFR 1.114(e).

Filing Requirements:

Prosecution in the application must be closed. Prosecution is closed if the application is under appeal, or the last Office action is a final action, a notice of allowance, or an action that otherwise closes prosecution in the application (e.g., an Office action under *Ex parte Quayle*). See 37 CFR 1.114(b).

A submission and a fee are required at the time the RCE is filed. If reply to an Office action under 35 U.S.C. 132 is outstanding (e.g., the application is under final rejection), the submission must meet the reply requirements of 37 CFR 1.111. If there is no outstanding Office action, the submission can be an information disclosure statement, an amendment, new arguments, or new evidence. See 37 CFR 1.114(c). The submission may be a previously filed amendment (e.g., an amendment after final rejection).

WARNINGS:

Request for Suspension of Action:

All RCE filing requirements must be met before suspension of action is granted. A request for a suspension of action under 37 CFR 1.103(c) does not satisfy the submission requirement and does not permit the filing of the required submission to be suspended.

Improper RCE will NOT toll Any Time Period:

Before Appeal **-** If the RCE is improper (e.g., prosecution in the application is not closed or the submission or fee has not been filed) and the application is not under appeal, the time period set forth in the last Office action will continue to run and the application will be abandoned after the statutory time period has expired if a reply to the Office action is not timely filed. No additional time will be given to correct the improper RCE.

Under Appeal **-** If the RCE is improper (e.g., the submission or the fee has not been filed) and the application is under appeal, the improper RCE is effective to withdraw the appeal. Withdrawal of the appeal results in the allowance or abandonment of the application depending on the status of the claims. If there are no allowed claims, the application is abandoned. If there is at least one allowed claim, the application will be passed to issue on the allowed claim(s). See MPEP 1215.01.

See MPEP 706.07(h) for further information on the RCE practice.

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent Application Fee Transmittal

Application Number:	12294641
Filing Date:	12-Apr-2010
Title of Invention:	METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECIAL AREA
First Named Inventor/Applicant Name:	Carlos Alberto P¿rez Lafuente
Filer:	Aaron Haleva/Raffaella Giuliano
Attorney Docket Number:	062403/00002

Filed as Small Entity

U.S. National Stage under 35 USC 371 Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Extension - 1 month with $0 paid	2251	1	75	75

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
Request for continued examination	2801	1	465	465
		Total in USD ($)		**540**

Electronic Acknowledgement Receipt	
EFS ID:	14152610
Application Number:	12294641
International Application Number:	
Confirmation Number:	1871
Title of Invention:	METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECIAL AREA
First Named Inventor/Applicant Name:	Carlos Alberto P¿rez Lafuente
Customer Number:	31013
Filer:	Aaron Haleva/Raffaella Giuliano
Filer Authorized By:	Aaron Haleva
Attorney Docket Number:	062403/00002
Receipt Date:	05-NOV-2012
Filing Date:	12-APR-2010
Time Stamp:	17:06:26
Application Type:	U.S. National Stage under 35 USC 371

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$540
RAM confirmation Number	4518
Deposit Account	500540
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Amendment Copy Claims/Response to Suggested Claims	62403_00002_Amendment_Response_to_OA.pdf	193233 7133b9819ce38eef5bb483bad9e786a13aca955b	no	14
Warnings:					
Information:					
2	Request for Continued Examination (RCE)	62403_00002_request_for_continued_examination_RCE.pdf	190256 ecc136693fca2bf18cf05bc8bc9050a220a67ac0	no	3
Warnings:					
This is not a USPTO supplied RCE SB30 form.					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	32594 7fa30a20da23cb4a64d3714277238de7a6f662ea	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	416083		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

<u>New Applications Under 35 U.S.C. 111</u>
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

<u>National Stage of an International Application under 35 U.S.C. 371</u>
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

<u>New International Application Filed with the USPTO as a Receiving Office</u>
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Customer No. 31013 Atty. Docket No. 062403-00002

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	LaFuente, Carlos Alberto Perez	Confirmation No. 1871
Application No.:	12/294,641	
Filed:	April 12, 2010	
For:	METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECIAL AREA	
Examiner:	Chang, Jean	
Group Art:	2614	

Mail Stop RCE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDMENT AND RESPONSE TO FINAL OFFICE ACTION

Sir:

This Amendment and Response to Final Office Action is submitted in response to the Office Action dated July 3, 2012 (the "Final Office Action") in the above identified patent application. This paper is submitted along with a Request For Continued Examination The shortened statutory period for reply is set for October 3, 2012. Thus, please charge Deposit Account No. 50-0540 in the amount of $75.00 (small entity) to cover the fee for a one-month extension of time, thus extending the period for response to the Office Action to November 5, 2012 (November 3, 2012 is a Saturday). Accordingly, this Response is timely submitted.

Claim Amendments/Claims Listings begin on page 2 of this paper.

Remarks begin on page 6 of this paper.

IN THE CLAIMS:

Please amend the claims as follows. This is a complete listing of all claims and replaces any prior listing in this application.

1. (currently amended) A method for monitoring the presence of a mobile station in ~~at least~~ one **or more** special area**s** associated with the mobile station, the method comprising:

(a) at least one radio communication defining device transmits a radio distinctive defining signal repeatedly in at least one channel that at least partially defines **one of** the special area**s** by its coverage,

(b) the mobile station observes the channel and processes any received signal in order to determine whether or not it is receiving a defining signal,

(c) the mobile station processes any received defining signal and determines whether or not the defining signal received is a distinctive defining signal that at least partially defines **one of** the special area**s**, and determines whether or not it is present in **one or more of** the special area**s**;

(d) the mobile station sends an updating signal to a mobile telephone network about its presence in **one or more of** the special area**s**, **the updating signal based on the last determination performed by the mobile station about its presence in each of the special areas, and said updating signal being sent at least one of (i) periodically, (ii) when the mobile station enters or exits one of the special areas, and (iii) both periodically and when the mobile station enters or exits one of the special areas.**

(e) the mobile telephone network routes the updating signal to special operating means that adapt the value of at least one operating parameter ~~depending on~~ **taking into account** the presence of the mobile station in **each of** the special area**s**,

wherein the special area**s** ~~is~~ **are** associated with the mobile station by transmitting a checking data to the mobile station, this checking data being sent to any mobile station whose presence in the special area**s** is monitored and being used by the mobile stations for determining whether or not the defining signal received is a distinctive defining signal that defines, alone or with other distinctive defining signals, **one or more of** the special area**s** associated with the mobile station.

2. (previously amended) The method according to claim 1, wherein the special area is deactivated for the mobile station by the mobile telephone network sending a deactivation signal to the mobile station to stop the mobile station from recognizing a defining signal that defines that special area as a distinctive one.

3. (previously amended) The method according to claim 1, wherein the special operating means acknowledge the reception of the updating signal and transmit an acknowledgement signal to the mobile station.

4. (previously amended) The method according to claim 1, wherein at least one radio communication defining device is a wireless device whose radio distinctive defining signal is a distinctive wireless signal transmitted by the wireless device in a frequency range outside the frequency range allocated for the mobile telephone network, the said distinctive wireless signal containing wireless device identification data and reliable information confirming that the wireless device is effectively located into a predetermined environment, and the checking data associated with this wireless device including the wireless device identification data.

5. (previously amended) The method according to claim 1, wherein at least one radio communication defining device is a base station whose radio distinctive defining signal is a distinctive signal comprising a special mobile telephone network identification code, the checking data associated with this base station including this special mobile telephone network identification code.

6. (previously amended) The method according to claim 1, wherein at least one radio communication defining device is a base station whose radio distinctive defining signal is a distinctive base station identity signal comprising an identification code of the base station, the checking data associated with this base station including this base station identification code.

7. (previously amended) The method according to claim 1, wherein the special operating means comprise a parameters database linking the special area to the mobile station and to a set of one

or more operating parameters; and a value of at least one operational parameter of this set is adapted when an updating signal signalling that the mobile station exits or enters the special area is received.

8. (previously amended) The method according to claim 1, wherein the operating parameter is a tariff flag or a service flag that enables or disables a special tariff or a service for the mobile station.

9. (previously amended) The method according to claim 1, wherein the updating signal includes a request to access a service or multimedia content and the mobile telephone network routes this request to a part of the special operating means that allow or forbid the provision of this service or multimedia content depending on, whether or not the mobile station is into the special area.

10. (previously amended) The method according to claim 1, wherein the mobile station receives the checking data from the mobile telephone network or a signal of ~~a~~ at least one radio device or from manual input.

11. (currently amended) A mobile system for monitoring the presence of a mobile station in ~~a~~ **one or more** special area**s** defined for this mobile station, said system comprising:

at least one radio communication defining device for **repeatedly** transmitting ~~repeatedly~~ a radio distinctive defining signal that at least partially defines **one of** the special area**s** in at least one channel,

special operating means for adapting the value of at least one operating parameter taking into account the presence of the mobile station in each of the special areas, and

a mobile station, comprising:

storage for storing a checking data, ~~and further comprising~~

observing means for observing said at least one channel, and

processing means for processing any received signal in order to determine whether or not the signal received is a defining signal and, if the signal received is a defining signal, for determining based on ~~the~~ checking data whether or not the signal

received is a distinctive defining signal and whether or not the mobile station is present in the special area,

and ~~further comprising~~,

transmission means for sending**, at least one of (i) periodically, (ii) when the mobile station enters or exits one of the special areas, and (iii) both periodically and when the mobile station enters or exits one of the special areas** an updating signal regarding the presence of the mobile station in **one or more of** the special area**s** from the processing means to **the** special operating means ~~included at least partly in data processing means of the mobile telephone network,~~

~~special operating means for adapting the value of at least one operating parameter depending on the presence of the mobile station in the special area.~~

.

12. (currently amended) The system according to claim 11, wherein the mobile system comprises special area location monitoring means for monitoring the correct location of at least a part of **one or more of** the special area**s**.

13-16. (cancelled)

17. (currently amended) A mobile station that is adapted to observe a channel and processes any received signal in order to determine whether or not it is receiving a defining signal, to process any received defining signal and to determine, based on a previously obtained checking data, whether or not the defining signal received is a distinctive defining signal that at least partially defines a special area, to determine whether or not it is present in **one or more** ~~the~~ special area**s**, and to send an updating signal **at least one of (i) periodically, (ii) when the mobile station enters or exits one of the special areas, and (iii) both periodically and when the mobile station enters or exits one of the special areas** to a mobile telephone network about its presence in **one or more of** the special area**s, said updating signal based on the last determination performed by the mobile station about its presence in the special areas.**

REMARKS

This Amendment, in connection with the following remarks, is submitted as fully responsive to the Office Action. Claims 1-12, 16 and 17 were pending. By this Amendment, claims 1, 11, 12 and 17 have been amended, and claim 16 canceled without prejudice. Claims 1, 11, and 17 are the independent claims.

35 U.S.C. §103 Rejections

In the Office Action, claims 1-2, 6, 8, 10-11 and 17 stand rejected under 35 U.S.C. §103(a), as being unpatentable over U.S. Patent No. 6,516,910 to Linkola ("Linkola"), in view of U.S. Patent No. 6,920,317 to Muhonen ("Muhonen"). Additionally, claims 3, 7 and 9 stand rejected under 35 U.S.C. §103(a) as unpatentbale over Linkola in view of Muhonen, and further in view of U.S. Patent No. 6,516,193 to Salmela et al. ("Salmela").

Additionally, claim 4 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Linkola in view of Muhonen and in further view of U.S. Patent Application Publication No. 2002/0094801 to Atorf ("Atorf"). Claim 16 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Muhonen and further in view of Atorf. Claim 5 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Linkola in view of Muhonen and further in view of U.S. Patent No. 6,826,414 to Reyonolds ("Reynolds"), and Claim 12 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Linkola in view of Muhonen and further in view of U.S. Patent No. 6,785,536 to Lee et al ("Lee").

Claim Amendments

Independent claim 1 has now been amended to specify that the updating signal is sent by the Mobile Station (MS) at least one of periodically and when the mobile station enters into or exits from one of the special areas. Support for this amendment may be found, for example, at ¶¶ [0147-0148] of the published version of the present application, US 2010/0190508. It is further noted that the paragraphs which follow, for example, ¶¶ [0149-0156] go on to describe how the MS determines whether or not it remains in a special area.

Claim 1 has been further amended to clarify that (i) the updating signal that is sent by the MS is based on the last determination about the presence in each of the special areas, and (ii) that one or more operating parameters are changed taking into account the presence (or absence) of the mobile station in each of the special areas. Support for this amendment can at least be found, for example, in ¶¶ [0174-0181] of the published US application.

Similar amendments have been made to independent claims 11 and 17.

Additionally, a stylistic change from "at least one special area" to "one or more special areas" has also been made in various claims.

Given these amendments, claims 1, 11 and 17, as amended, are urged as patentable over the cited art, as next set forth.

A. Claim 1 Is Patentable Over Linkola In View Of Muhonen.

1. MS Entering a Special Area In Linkola

Linkola does not disclose that a mobile station sends an updating signal regarding its presence in a special area, at least one of periodically and when the mobile station enters or exits one of the special areas, as recited in amended claim 1. Rather, in Linkola always the sending of the compensation record is always linked to the moment of making a call. While the

determination of presence in a special area may possibly be made periodically in Linkola, this information is only transferred to the rest of the mobile network at a single moment after initiating a call.

In the case that the last determination prior to initiating a phone call of the MS was that the MS was in a special area, then under the Linkola system a compensation record associated with the initiated call is sent to the mobile telephone network. The compensation record associated with the phone call is built at a mobile station locator element and comprises "location data and data identifying the originating call." See, for example, Linkola at 8:34 -44. Thus, the sending of the updating signal is ***neither periodical nor resulting from entering or exiting a special area.***

Figure 1.a provided below illustrates the Linkola process of a mobile station (MS) entering in Special Area 1 (SA1) at instant t = i, and sending the compensation record to the mobile telephony network at instant t = m, e.g. just after the phone call is established:

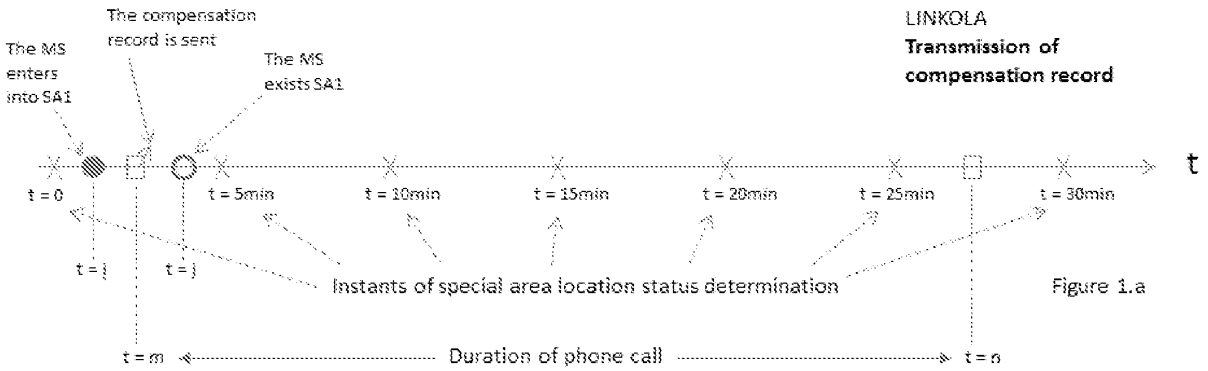


Figure 1.a

Even if the MS exits SA1 at t = j, Linkola special pricing remains until **t = n** when the phone call ends. Thus, the Linkola signal containing the compensation record is not a presence updating signal in the sense of claim 1 but just a single signal providing a location status for special or

normal pricing for the entire phone call. The result of location determinations at t = 5min, 10min, 15min… are irrelevant in Linkola; they have no further impact on the pricing to be applied to the entire phone call.

Thus, under Linkola, in the case that the last determination prior to an initiated phone call results that the mobile station is not in the special area, then the entire phone call is quoted at normal price rates, ***regardless of whether the mobile station later enters into a special area with a reduced price***.

In Linkola, the compensation record may be sent either during the phone call, or at the end of the phone call. But the compensation record is not at all affected by a user entering into another special area, exiting a first area, remaining in it or reentering at a later stage.

2. MS Entering a Special Area According to the Claimed Invention

In stark contrast to the Linkola approach is an exemplary process according to an embodiment of the present invention, illustrated in Figure 1.b below. This Figure illustrates the process of an MS entering into SA1 at instant t = i according to claim 1 of the present invention:

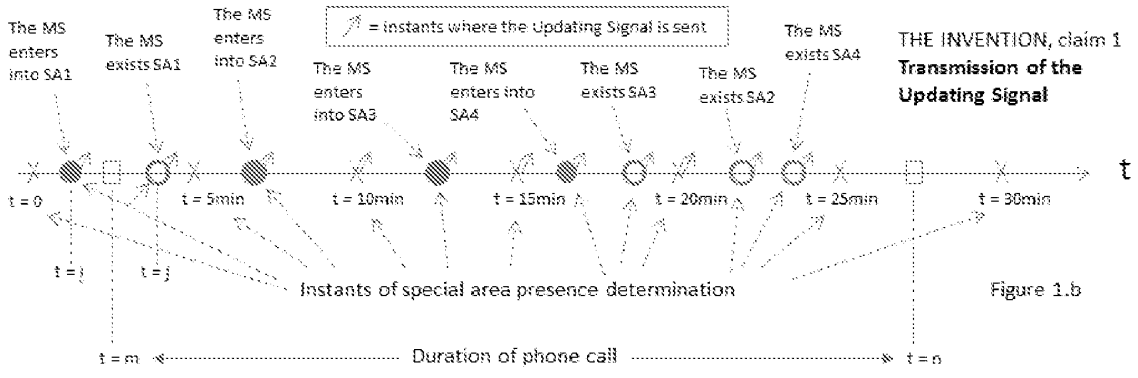


Figure 1.b

As shown, the system is configured such that a presence updating signal is sent to the mobile telephony network when the MS enters or exists an special area and also periodically when the

MS remains in an SA. Thus, for example, special pricing associated with SA1 is only applied to the part of the phone call from t = m to t = j; the rest of the phone call will not be tariffed at SA1 special pricing. So presence-based phone call pricing can be achieved according to the process of the claimed invention, but not using the Linkola system.

It is further noted that in the example of Figure 1.b, the user of the system of the invention is subscribed to services associated with presence in different special areas, as follows:

- SA1: special phone calls tariff at price T1
- SA2: right to receive maintenance information from home utilities equipped with an invention Wireless Device and sending it from the MS to the utilities service provider
- SA3: special 3G connectivity wide band.
- SA4: special phone calls tariffs at price T2

The above provided example thus shows 11 instants where an updating signal according to the invention is sent to the mobile telephony network, each one of those containing presence determination information, as follows:

Instant	**Event**
t = i	MS entering into SA1 and starting with T1 phone call tariff;
t = j	MS existing SA1 and returning to regular phone call tariff ;
t = 7min	MS entering into SA2;
t = 10min	MS remaining into SA2 (and sending home utilities maintenance information if and when applicable);
t = 12min	MS entering at SA3 (so having access to a wider 3G modem wide band) and remaining at SA2;
t = 15min	MS remaining at SA2 and SA3;

Instant	Event
t = 16 min	MS entering at SA4 (so starting with T2 tariff for that part of the mobile phone call) and remaining at SA2 and SA3;
t = 18 min	MS existing SA3 and remaining at SA2 and SA4;
t = 20 min	MS remaining at SA2 and SA4;
t = 22min	MS exiting SA2 and remaining at SA4;
t = 24min	MS exiting SA4 (so returning to regular phone call tariff);

Thus, as shown, in various examples of the present invention, using the updating signal it is possible to (a) generate and send information about simultaneous presence of the MS at several user special areas; (b) independently of any phone call establishment; and (c) according to presence status criteria: entering, exiting or remaining at SAs. Linkola's compensation record signal is not able to match either (a), (b), or (c), and thus Linkola cannot teach the method of claim 1, as amended.

Linkola also at least does not disclose that the updating signal is based on the determination of the presence in each of the special areas. And that one or more operating parameters are changed depending on the presence of the mobile station in *each* of the special areas. That is, in accordance with claim 1, if 10 special areas are defined and the mobile station is present in two of them, the updating signal would comprise the information that the mobile station was present in the two areas, and not present in the other eight (or this could be assumed by the system by default). For example, in the first special area, a specific service not available in other areas may be offered and in the second special area, a reduced rate may be available.

In Linkola, there is only transmission of information about the special area from which a phone call is initiated (if in the last determination prior to the phone call, the MS was indeed present in such a special area). In Linkola, there is no mention of a plurality of special areas, or any suggestion of a special area in which a special service is offered (rather than a discount rate for a phone call). Thus, in Linkola there is simply no need to send information about a plurality of special areas, or any capability to do something with such information. According to the teaching of Linkola, if a user enters another special area during a phone call, this event would go entirely unnoticed. The present invention provides improved flexibility to a mobile telephone network and the ability offer a plurality of special areas, each with its own characteristics.

3. Muhonen Does Not Cure The Defects Of Linkola As A Reference

The above named features (a)-(c), all missing from Linkola, are also not taught by Muhonen. Muhonen bases the determination of whether or not an MS is in a special area on which base station is used. Muhonen at 2:24 – 43; Abtsract ("A radio control element (BSC1, BSC2) determines whether the mobile station (MS) is in a special cell"). This means that a MS could be in a special area, but if due to traffic or quality constraints, the call is routed through another base station, that MS would not have access to a special tariff or service associated with the actual SA it is in. As such, Muhonen teaches a network-centric approach to the determination of whether a MS is in a special area or not. In stark contrast with Muhonen, claim 1 recites a method ***that allows the MS itself to determine whether or not it is present in a special area.***

In Muhonen a MS never sends an updating signal. Further, in Muhonen, it is not possible for a MS to be in two or more special areas at the same time. Because presence in a special area is **by definition** associated to the base station through which a call is routed, no determination of the possible presence in another special area is or can ever be made in Muhonen.

In conclusion, neither Muhonen, nor Linkola teach any of :

- a mobile station sending an updating signal about its presence in a special area, periodically and/or when the mobile station enters and/or exits from one of the special areas;
- the updating signal being based on the determination of the presence in each of the special areas;
- one or more operating parameters being changed depending on the presence of the mobile station in each of the special areas.

Thus, the prima facie case for obviousness fails.

In addition, it is noted that there is no straightforward way to combine Linkola with Muhonen on any of these aspects, since the two systems have completely opposite teachings when it comes to the determination of MS presence in a special area.

Morover, it is noted that there is also no way to combine Linkola with either Muhonen or other cited prior art references and arrive at the subject-matter of claim 1. With respect to Reynolds, the method of determining presence in a special area is network-centric and in fact is very similar to the method described in Muhonen. Salmela also determines presence into a special area based on the network-centric scheme. With respect to Atorf, in Atorf the mobile station cannot analyze its presence in a special area, it merely forwards a received signal. As such, the mobile station does not send any updating signal which is based on the determination of the presence in each of the special areas.

Thus Claim 1, as amended, is urged as patentable over the cited art, alone or in any combination.

B. Independent claims 11 and 17

For similar reasons as argued for claim 1, claims 11 and 17, which recite the same novel features as claim 1, are urged as patentable over the cited art. Linkola at least does not disclose a mobile station with transmission means for sending periodically and/or when the mobile station enters into and/or exits from one of the special areas, an updating signal regarding the presence of the mobile station in each of the special areas from the processing means to the special operating means. Muhonen does not teach this limitation either.

C. Dependent Claims 2-10 and 12

Dependent claims 2-10 and 12, are also urged as patentable over the cited prior art, for similar reasons as set forth above in connection with claim 1.

No additional fees are believed to be due in connection with this paper. However, if any fee is due, the Director is hereby authorized to charge such fee to Deposit Account No. 50-0540.

Respectfully submitted,

Dated: **November 5, 2012**

By: /Aaron Haleva/

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PTO/SB/06 (07-06)
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 12/294,641	Filing Date 04/12/2010	☐ To be Mailed

APPLICATION AS FILED – PART I

	(Column 1)	(Column 2)	SMALL ENTITY ☒		OR	OTHER THAN SMALL ENTITY	
FOR	NUMBER FILED	NUMBER EXTRA	RATE ($)	FEE ($)		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =		OR	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =			X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL	

APPLICATION AS AMENDED – PART II

		(Column 1)		(Column 2)	(Column 3)	SMALL ENTITY		OR	OTHER THAN SMALL ENTITY	
		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)		RATE ($)	ADDITIONAL FEE ($)
AMENDMENT	Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =		OR	X $ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =		OR	X $ =	
	☐ Application Size Fee (37 CFR 1.16(s))									
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

		(Column 1)		(Column 2)	(Column 3)					
	11/05/2012	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)		RATE ($)	ADDITIONAL FEE ($)
AMENDMENT	Total (37 CFR 1.16(i))	* 13	Minus	** 14	= 0	X $31 =	0	OR	X $ =	
	Independent (37 CFR 1.16(h))	* 3	Minus	*** 3	= 0	X $125 =	0	OR	X $ =	
	☐ Application Size Fee (37 CFR 1.16(s))									
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE	**0**	OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

Legal Instrument Examiner:
/THERESA LINDSAY/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/294,641	04/12/2010	Carlos Alberto P¿rez Lafuente	062403/00002	1871

31013 7590 07/03/2012

KRAMER LEVIN NAFTALIS & FRANKEL LLP
INTELLECTUAL PROPERTY DEPARTMENT
1177 AVENUE OF THE AMERICAS
NEW YORK, NY 10036

EXAMINER	
CHANG, JEAN	
ART UNIT	PAPER NUMBER
2617	

NOTIFICATION DATE	DELIVERY MODE
07/03/2012	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

klpatent@kramerlevin.com

Office Action Summary	Application No.	Applicant(s)	
	12/294,641	P REZ LAFUENTE, CARLOS ALBERTO	
	Examiner	Art Unit	
	JEAN CHANG	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 February 2012*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5)☒ Claim(s) *1-12,16 and 17* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1-12, 16-17* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

12)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to the amended independent claims 1, 11, 16 and respective dependents have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a):

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows: *(See MPEP Ch. 2141)*

a. Determining the scope and contents of the prior art;
b. Ascertaining the differences between the prior art and the claims in issue;
c. Resolving the level of ordinary skill in the pertinent art; and
d. Evaluating evidence of secondary considerations for indicating obviousness or nonobviousness.

2. Claims 1-2, 6, 8, 10-11 and 17 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Linkola (US Patent No. 6,516,910) in view of Muhonen (US Patent No. 6,920,317).

Claim 1. (Currently Amended)

Linkola teach

A method for monitoring the presence of a mobile station (FIG. 3:MS) *in at least one special area associated with the mobile station, comprising:*

(a) at least one radio communication defining device (FIG. 3:BTS) *transmits a radio distinctive defining signal repeatedly in at least one channel* (col. 7, lines 29-59; col. 11, line 50 to col. 12, line 5; col. 10, lines 12-16),

(b) the mobile station observes the channel and processes any received signal in order to determine whether or not it is receiving a defining signal (col. 4, line 61 to col. 5, line 10; col. 7, lines 17-25; col. 7, line 60 to col. 8, line 33),

(c) the mobile station processes any received defining signal and determines whether or not the defining signal received is a distinctive defining signal that at least partially defines the special area, and determines whether or not it is present in the special area (col. 4, line 61 to col. 5, line 10; col. 7, line 60 to col. 8, line 33);

(d) the mobile station sends an updating signal to a mobile telephone network about its presence in the special area (col. 5, lines 3-10; col. 8, lines 34-52; col. 10, line 64 to col. 11, line 5),

(e) the mobile telephone network routes the updating signal to special operating means that adapt the value of at least one operating parameter depending on the presence of the mobile station in the special area (col. 8, lines 52-59; col. 5, lines 18-26),

wherein the special area is associated with the mobile station by a checking data stored in *the mobile station, and being used by the mobile stations for*

determining whether or not the defining signal received is a distinctive defining signal that defines, alone or with other distinctive defining signals, the special area associated with the mobile station (col. 5, lines 30-35; col. 4, line 61 to col. 5, line 10; col. 7, line 17 to col. 8, line 59).

Linkola does not elaborate on

at least one radio communication defining device transmits a radio distinctive defining signal repeatedly in at least one channel that *at least partially defines the special area by its coverage,*

wherein the special area is associated with the mobile station by *transmitting* a checking data *to* the mobile station*, this checking data being sent to any mobile station whose presence in the special area is monitored.*

In the similar field of endeavor, Muhonen teach

at least one radio communication defining device transmits a radio distinctive defining signal repeatedly in at least one channel that *at least partially defines the special area by its coverage* (col. 2, lines 25-56),

wherein the special area is associated with the mobile station by *transmitting a checking data to* the mobile station*, this checking data being sent to any mobile station whose presence in the special area is monitored* (col. 5, lines, 58-67; col. 2, lines 25-42).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Muhonen into the method of Linkola to include at least one radio communication defining device transmitting a radio distinctive defining signal repeatedly in at least one channel that at least partially defines the special area by its coverage and to transmit a checking data such as localized service areas to the mobile station as taught by Muhonen so that the checking data may be stored and *used by the mobile station<u>s</u> for determining whether or not the defining signal received is a distinctive defining signal that defines, alone or with other distinctive defining signals, the special area associated <u>with</u> the mobile station* as taught by Linkola.

The motivation to combine is so that the network operator may define the subscriber's localized service areas as stated by Muhonen (col. 5, lines 58-59).

Claim 2. (Currently Amended)

Linkola in combination with Muhonen teach

<u>The</u> method according to claim 1, <u>wherein</u> the special area is deactivated for the mobile station (Muhonen, col. 5, lines 37-46) *by the mobile telephone network sending a deactivation signal to the mobile station to stop the mobile station from recognizing a defining signal that defines that special area as a distinctive one* (Muhonen, col. 5, lines 58-59, lines 66-67).

The motivation to combine is so that the network operator may control and define the subscriber's localized service area as stated by Muhonen (col. 5, lines 58-59).

Claim 6. (Currently Amended)

Linkola in combination with Muhonen teach

The method according to claim 1, wherein at least one radio communication defining device is a base station whose radio distinctive defining signal is a distinctive base station identity signal comprising an identification code of the base station, the checking data associated with this base station includes this base station identification code (Linkola, col. 7, lines 29-65; col. 8, lines 12-33).

Claim 8. (Currently Amended)

Linkola in combination with Muhonen teach

The method according to claim 1, wherein the operating parameter is a tariff flag or a service flag that enables or disables a special tariff or a service for the mobile station (Muhonen, col. 5, line 46).

The motivation to combine is so that the network operator may control and define the subscriber's localized service area as stated by Muhonen (col. 5, lines 58-59).

Claim 10. (Currently Amended)

Linkola in combination with Muhonen teach

The method according to claim 1, wherein the mobile station receives the checking data from the mobile telephone network or a signal of a at least one radio device or from manual input (Muhonen, col. 5, lines 58-59, lines 66-67).

The motivation to combine is so that the network operator may control and define the subscriber's localized service area as stated by Muhonen (col. 5, lines 58-59).

Claim 11. (Currently Amended)

Linkola teach

A mobile system for monitoring the presence of a mobile station in a special area defined for this mobile station, said system comprising:

At least one radio communication defining device (FIG. 3:BTS) for *transmitting repeatedly a radio distinctive defining signal in at least one channel* (col. 7, lines 29-59; col. 11, line 50 to col. 12, line 5; col. 10, lines 12-16),

a mobile station (FIG. 3:MS), *comprising:*

storage for storing a checking data (col. 8, lines 12-16) *and further comprising*

observing means for observing said at least one channel and

processing means for processing any received signal in order to determine whether or not the signal received is a defining signal and, if the signal received

is a defining signal, for determining based on the checking data whether or not the signal received is a distinctive defining signal and whether or not the mobile station is present in the special area (col. 4, lines 61 to col. 5, line 10; col. 7, lines 17-25; col. 7, line 60 to col. 8, line 33)*, and further comprising,*

transmission means for sending an updating signal regarding the presence of the mobile station in the special area from the processing means to special operating means included at least partly in data processing means of the mobile telephone network (col. 5, lines 3-10; col. 8, lines 34-52; col. 10, line 64 to col. 11, line 5)*,*

special operating means for adapting the value of at least one operating parameter depending on the presence of the mobile station in the special area (col. 8, lines 52-59; col. 5, lines 18-26).

Linkola does not elaborate on

At least one radio communication defining device for transmitting repeatedly a radio distinctive defining signal *that at least partially defines the special area* in at least one channel.

In the similar field of endeavor, Muhonen teach

At least one radio communication defining device for transmitting repeatedly a radio distinctive defining signal *that at least partially defines the special area* in at least one channel (col. 2, lines 25-56)*,*

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Muhonen into the method of Linkola to include at least one radio communication defining device for transmitting repeatedly a radio distinctive defining signal that at least partially defines the special area in at least one channel.

The motivation to combine is so that the network operator may define the subscriber's localized service areas as stated by Muhonen (col. 5, lines 58-59).

Claim 17. (Currently Amended)

Linkola teach

A mobile station (FIG. 3:MS), *that is adapted to observe a channel and processes any received signal in order to determine whether or not it is receiving a defining signal, to process any received defining signal and to determine, based on a previously obtained checking data, whether or not the defining signal received is a distinctive defining signal that at least partially defines a special area, to determine whether or not it is present in the special area, and to send an updating signal to a mobile telephone network about its presence in the special area* (col. 4, line 61 to col. 5, line 10; col. 7, line 17 to col. 8, line 47).

3. **Claims 3, 7 and 9 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Linkola (US Patent No. 6,516,910) in view of Muhonen (US Patent No.**

6,920,317) further in view of Salmela et al. (US Patent No. 6,516,193).

Claim 3. (Currently Amended)

Linkola in combination with Muhonen teach *the method according to claim 1.*

Linkola in combination with Muhonen does not elaborate on

wherein the special operating means acknowledge the reception of the updating signal and transmit an acknowledgement signal to the mobile station.

In the similar field of endeavor, Salmela et al. teach

wherein the special operating means acknowledge the reception of the updating signal and transmit an acknowledgement signal to the mobile station (col. 6, lines 16-64).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Salmela et al. into the combined teaching of Linkola and Muhonen to acknowledge the updating signal received from the mobile station. Such a communication protocol is well known in the art.

Claim 7. (Currently Amended)

Linkola in combination with Muhonen teach

The method according to claim 1, wherein the special operating means comprise a value of at least one operational parameter of this set is adapted when an updating signal signalling that the mobile station exits or enters the special area is received (Linkola, col. 8, lines 52-56; Muhonen, col. 6, line 61 to col. 7, line 33).

Linkola in combination with Muhonen does not elaborate on *wherein the special operating means comprise a parameters database linking the special area to the mobile station and to a set of one or more operating parameters.*

In the similar field of endeavor, Salmela et al. teach *wherein the special operating means comprise a parameters database linking the special area to the mobile station and to a set of one or more operating parameters* (col. 3, lines 16-18; col. 4, lines 11-24).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Salmela et al. into the combined teaching of Linkola and Muhonen to elaborate on a database linking the special area to the mobile station.

The motivation to combine is to elaborate on the network databases used for providing locally tailored services or locally restricting connection of a mobile station to a network as stated by Salmela et al. (col. 3, lines 40-42).

Claim 9. (Currently Amended)

Linkola in combination with Muhonen teach *the method according to claim 1.*

Linkola in combination with Muhonen does not elaborate on

wherein the updating signal includes a request to access a service or multimedia content and the mobile telephone network routes this request to a part of the special operating means that allow or forbid the provision of this service or multimedia content depending on whether or not the mobile station is into the special area.

In the similar field of endeavor, Salmela et al. teach

wherein the updating signal includes a request to access to a service or to a multimedia content and the mobile telephone network routes this request to a part of the special operating means that allow or forbid the provision of this service or multimedia content depending on whether or not the mobile station is into the special area (col. 6, lines 8-64; col. 10, lines 33-54).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Salmela et al. into the

combined teaching of Linkola and Muhonen to elaborate on the operation of localized services.

The motivation to combine is for control locally tailored services or locally restricting connection of a mobile station to a network as stated by Salmela et al. (col. 3, lines 25-27).

4. **Claim 4 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Linkola (US Patent No. 6,516,910) in view of Muhonen (US Patent No. 6,920,317) further in view of Atorf (US PGPUB No. 2002/0094801).**

Claim 4. (Currently Amended)

Linkola in combination with Muhonen teach

The method according to claim 1, wherein at least one radio communication defining device is a wireless device whose radio distinctive defining signal is a distinctive wireless signal transmitted by the wireless device (Muhonen, col. 2, lines 25-33),

the said distinctive wireless signal containing wireless device identification data and reliable information confirming that the wireless device is effectively located into a predetermined environment (Linkola, col. 7, lines 29-59),

and the checking data associated with this wireless device including the wireless device identification data (Linkola, col. 8, lines 60-65; Muhonen, col. 5, lines 58-

67, lines 38-40).

Linkola in combination with Muhonen does not elaborate on
wherein at least one radio communication defining device is a wireless device whose radio distinctive defining signal is a distinctive wireless signal transmitted by the wireless *device in a frequency range outside the frequency range allocated for the mobile telephone network*.

In the similar field of endeavor, Atorf teach
wherein at least one radio communication defining device is a wireless device whose radio distinctive defining signal is a distinctive wireless signal transmitted by the wireless device in a frequency range outside the frequency range allocated for the mobile telephone network (paragraphs [0027] – [0030], [0035], [0023] – [0024]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Atorf into the combined teaching of Linkola and Muhonen to include at least one radio communication defining device being a wireless device transmitting in a frequency range outside the frequency range allocated for the mobile telephone network.

The motivation to combine is to enable operation of a mobile telephone at different user rates that are dependent on the instantaneous location as stated by Atorf (paragraph [0001]).

5. **Claim 16 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Muhonen (US Patent No. 6,920,317) further in view of Atorf (US PGPUB No. 2002/0094801).**

Claim 16. (Currently Amended)

Muhonen teach

A radio communication defining device, *arranged to transmit on at least one channel a distinctively defining radio signal that at least partially defines a special area by its coverage* (col. 2, lines 25-39).

Muhonen does not elaborate on

wherein said radio communication defining device is a wireless device, provided with means for obtaining reliable information indicating whether or not the said wireless device is located in a predetermined environment.

In the similar field of endeavor, Atorf teach

wherein said radio communication defining device is a wireless device

(paragraphs [0027] – [0030]), *provided with means for obtaining reliable*

information indicating whether or not the said wireless device is located in a predetermined environment (paragraphs [0023] – [0024], [0035]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Atorf into the teaching of Muhonen to include at least one radio communication defining device being a wireless device and means for indicating whether the wireless device is located in a predetermined environment.

The motivation to combine is to enable operation of a mobile telephone at different user rates that are dependent on the instantaneous location as stated by Atorf (paragraph [0001]).

6. **Claim 5 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Linkola (US Patent No. 6,516,910) in view of Muhonen (US Patent No. 6,920,317) further in view of Reynolds et al. (US Patent No. 6,826,414).**

Claim 5. (Currently Amended)

Linkola in combination with Muhonen teach

The method according to claim 1, wherein at least one radio communication defining device is a base station whose radio distinctive defining signal is a distinctive signal comprising a special mobile telephone network identification

code, the checking data associated with this base station including this special mobile telephone network identification code (Linkola, col. 7, line 29 to col. 8, line 33).

To be complete, in the similar field of endeavor, Reynolds et al. teach *that at least one radio communication defining device is a base station* (FIG. 2:16, col. 4, lines 29-35, lines 39-42; col. 6, lines 26-31) *whose radio distinctive defining signal is a distinctive signal comprising a special mobile telephone network identification code, the checking data associated with this base station including this special mobile telephone network identification code* (col. 4, lines 43-52).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Reynolds et al. into the combined teaching of Linkola and Muhonen to further elaborate on the distinctive wireless signal and the checking containing a special network identification code.

The motivation to combine is to reuse a mobile communication network for additional network portion for special service which can conveniently be distinguished by the use of different network identity code as stated by Reynolds et al. (col. 3, lines 24-29).

7. **Claim 12 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Linkola (US Patent No. 6,516,910) in view of Muhonen (US Patent No. 6,920,317) further in view of Lee et al. (US Patent No. 6,785,536).**

Claim 12. (Currently Amended)

Linkola in combination with Muhonen teach *the mobile system according to claim 11.*

Linkola in combination with Muhonen does not elaborate on *wherein the mobile system comprises special area location monitoring means for monitoring the correct location of at least a part of the special area.*

In the similar field of endeavor, Lee et al. teach *wherein the mobile system comprises special area location monitoring means for monitoring the correct location of at least a part of the special area* (FIG. 6:65, col. 5, lines 42-56).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Lee et al. into the combined teaching of Linkola and Muhonen to monitor the correct location of at least a part of the special area.

The motivation to combine is to accurately recognize the boundary of the special area which is important to the service providers in terms of the amount of revenue they can generate as stated by Lee et al. (col. 1, lines 50-59).

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

   A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Chang whose telephone number is (571) 270-7979. The examiner can normally be reached on Mon-Thursday from 9:00-

5:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Jinsong Hu can be reached on (571) 272-3965. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Jean Chang/
Examiner, Art Unit 2617

/Jinsong Hu/
Supervisory Patent Examiner,
Art Unit 2617

Notice of References Cited	Application/Control No. 12/294,641	Applicant(s)/Patent Under Reexamination P REZ LAFUENTE, CARLOS A	
	Examiner JEAN CHANG	Art Unit 2617	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2002/0094801 A1	07-2002	Atorf, Manfred	455/406
*	B	US-6,516,190 B1	02-2003	Linkola, Janne	455/408
*	C	US-6,516,193 B1	02-2003	Salmela et al.	455/432.3
*	D	US-6,826,414 B1	11-2004	Reynolds et al.	455/555
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12294641	P REZ LAFUENTE, CARLOS ALBERTO
	Examiner	Art Unit
	JEAN CHANG	2617

SEARCHED			
Class	Subclass	Date	Examiner
455	456.4	9/28/2011	jc
455	456.4	6/21/2012	jc

SEARCH NOTES		
Search Notes	Date	Examiner
inventor search on East databases	9/28/2011	jc
search East databases for special/distint/different/preferred/discount service/tariff/rate/charging/billing service/area/zone base station/AP/area	9/28/2011	jc
inventor search on East databases	6/21/2012	jc
(special or limited or distint or different or preferred or discount or home) near10 (service or tarrif or rate) near10 (area or coverage or location or zone) same (signal or code or identifier or identification or parameter or flag) same ((base station) or cell or AP or device) same (wireless or mobile) and (monitor or presence) near10 (mobile or wireless) (station or device or phone) near10 (determin$4 or recogniz$4 or realiz$3 or check$3)	6/21/2012	jc

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	18	(special or limited or distint or different or preferred or discount or home) near10 (service or tarrif or rate) near10 (area or coverage or location or zone) same (signal or code or identifier or identification or parameter or flag) same ((base station) or cell or AP or device) same (wireless or mobile) and (monitor or presence) near10 (mobile or wireless) (station or device or phone) near10 (determin$4 or recogniz$4 or realiz$3 or check$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2012/06/25 01:08
L2	6	"lafuente, carlos".inv.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2012/06/25 01:10
L3	1	L1 and L2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2012/06/25 01:10
S1	29	"6334052"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/26 17:50
S2	5	"6785536"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/26 17:55
S3	20	"6826414"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/26 17:56
S4	4	"20020094801"	US-PGPUB; USPAT; USOCR; FPRS;	ADJ	ON	2011/09/28 08:40

			EPO; JPO; DERWENT; IBM_TDB			
S5	4	"2000027152"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 08:42
S6	4	"7212804"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 08:44
S7	3	"20080004045"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 09:17
S8	3	"20030092450"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 09:20
S9	14589	(special or distint or different or preferred or discount) near10 (service or tarrif or rate) near10 (area or coverage)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 09:27
S10	2969	(special or distint or different or preferred or discount) near10 (service or tarrif or rate) near10 (area or coverage) same (signal or code or identifier or identification or parameter or flag)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 09:29
S11	607	(special or distint or different or preferred or discount) near10 (service or tarrif or rate) near10 (area or coverage) same (signal or code or identifier or identification or parameter or flag) same ((base station) or cell or AP)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 09:30
S12	236	(special or distint or different or preferred or discount) near10 (service or tarrif or rate) near10 (area or coverage) same (signal or code or identifier or identification or parameter or flag) same ((base station) or cell or AP) and monitor	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 09:30
S13	308	(special or distint or different or preferred or discount) near10 (service or tarrif or	US-PGPUB; USPAT;	ADJ	ON	2011/09/28 09:31

		rate) near10 (area or coverage) same (signal or code or identifier or identification or parameter or flag) same ((base station) or cell or AP) and (monitor or presence)	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S14	52	(special or distint or different or preferred or discount) near10 (service or tarrif or rate) near10 (area or coverage) same (signal or code or identifier or identification or parameter or flag) same ((base station) or cell or AP) and (monitor or presence) and multimedia	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 09:31
S15	1006	(special or distint or different or preferred or discount) near20 (service or tarrif or rate or billing or charg$3 or zone) near20 (area or coverage) same (signal or code or identifier or identification or parameter or flag) same ((base station) or cell or AP)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:44
S16	399	S15 not S11	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:44
S17	16	S16 and special service	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:45
S18	18	S16 and (special or distinct) (service or zone)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:45
S19	19	S16 and (special or distinct) (service or zone or area)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:45
S20	313	455/456.4.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:48
S21	6	"lafuente, carlos".inv.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:48

S22	1	S20 and S16	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:49
S23	16	"6625442"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:49
S24	20	"6516193"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:52
S25	5	"6785536"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/30 18:40
S26	6	"6920317"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/30 18:42
S27	1182	(special or limited or distint or different or preferred or discount or home) near10 (service or tarrif or rate) near10 (area or coverage or location or zone) same (signal or code or identifier or identification or parameter or flag) same ((base station) or cell or AP or device) same (wireless or mobile) and (monitor or presence)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2012/06/21 10:39
S28	15	(special or limited or distint or different or preferred or discount or home) near10 (service or tarrif or rate) near10 (area or coverage or location or zone) same (signal or code or identifier or identification or parameter or flag) same ((base station) or cell or AP or device) same (wireless or mobile) and (monitor or presence) near10 (mobile or wireless) (station or device or phone) near10 (determin$4 or recogniz$4 or realiz$3 or check$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2012/06/21 10:44
S29	368	455/456.4.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	ADJ	ON	2012/06/21 11:35

			IBM_TDB			
S30	6	"lafuente, carlos".inv.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2012/06/21 11:36
S31	15	(special or limited or distint or different or preferred or discount or home) near10 (service or tarrif or rate) near10 (area or coverage or location or zone) same (signal or code or identifier or identification or parameter or flag) same ((base station) or cell or AP or device) same (wireless or mobile) and (monitor or presence) near10 (mobile or wireless) (station or device or phone) near10 (determin$4 or recogniz$4 or realiz$3 or check$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2012/06/21 11:36
S32	0	S31 and S29	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2012/06/21 11:36

EAST Search History (Interference)

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6/ 25/ 2012 1:11:07 AM
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Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12294641	P REZ LAFUENTE, CARLOS ALBERTO
	Examiner	**Art Unit**
	JEAN CHANG	2617

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	09/26/2011	06/25/2012							
	1	✓	✓							
	2	✓	✓							
	3	✓	✓							
	4	✓	✓							
	5	✓	✓							
	6	✓	✓							
	7	✓	✓							
	8	✓	✓							
	9	✓	✓							
	10	✓	✓							
	11	✓	✓							
	12	✓	✓							
	13	O	-							
	14	✓	-							
	15	✓	-							
	16	✓	✓							
	17	✓	✓							

OPAP IAPS
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PATENT & TRADEMARK OFFICE

Customer No. 31013 · **Attorney Docket No. 062403-00002**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	LaFuente, Carlos Alberto Perez	Confirmation No. 1871
Application No.:	12/294,641	
Filed:	April 12, 2010	
For:	METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECIAL AREA	
Examiner:	Chang, Jean	
Group Art:	2614	

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

CERTIFICATE OF FIRST CLASS MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, on February 13, 2012.

Signature:
Aaron S. Haleva, Reg. No. 44,733

AMENDMENT AND RESPONSE TO OFFICE

Sir:

This Amendment and Response to Office Action is submitted in response to the Office Action dated October 12, 2011 (the "Office Action") in the above identified patent application. The shortened statutory period for reply is set for January 12, 2012. Thus, please charge Deposit Account No. 50-0540 in the amount of $75.00 to cover the fee for a one-month extension of time, thus extending the period for response to the Office Action to February 13, 2012 (February 12, 2012 was a Sunday). Accordingly, this Response is timely submitted.

Claim Amendments/Claims Listings begin on page 2 of this paper.

Remarks begin on page 7 of this paper.

02/16/2012 MBLANCO 00000025 500540 12294641
01 FC:2251 75.00 DA

KL3 2860076.3

IN THE CLAIMS:

Please amend the claims as follows. This is a complete listing of all claims and replaces any prior listing in this application.

1. (currently amended) A method for monitoring the presence of a mobile station in at least one special area associated ~~to~~ with the mobile station, ~~the method~~ comprising ~~the following steps~~ :

(a) at least one radio communication defining device transmits a radio distinctive defining signal repeatedly in at least ~~a~~ one channel ~~one radio distinctive defining signal~~ that at least partially defines the special area by its coverage,

(b) the mobile station observes the channel and ~~process~~ processes any received signal ~~received~~ in order to determine whether or not it is receiving ~~any~~ a defining signal,

(c) the mobile station processes any received defining signal ~~received~~ and determines whether or not the defining signal received is a distinctive defining signal that at least partially defines the special area, and determines whether or not it is present in the special area;

(d) the mobile station sends an updating signal to a mobile telephone network about its presence in the special area,

(e) the mobile telephone network routes the updating signal to special operating means that adapt the value of at least one operating parameter depending on the presence of the mobile station in the special area,

~~the said method is characterized in that~~ wherein the special area is associated ~~to~~ with the mobile station by transmitting a checking data to the mobile station ~~a checking data~~, this checking data being sent to any mobile station whose presence in the special area is monitored and being used by the mobile ~~station~~ stations for determining whether or not the defining signal received is a distinctive defining signal that defines, alone or with other distinctive defining signals, the special area associated ~~to~~ with the mobile station ~~and the same checking data being sent to any mobile station whose presence in this special area is monitored~~.

2. (currently amended) ~~A~~ The method according to claim 1, ~~characterized in that~~ wherein the special area is deactivated for the mobile station by the mobile telephone network sending a deactivation signal to the mobile station to stop the mobile station from recognizing a defining

signal that defines that special area as a distinctive one.

3. (currently amended) ~~A~~ The method according to claim 1, ~~characterized in that~~ wherein the special operating means acknowledge the reception of the updating signal and transmit an acknowledgement signal to the mobile station.

4. (currently amended) ~~A~~ The method according to claim 1, ~~characterized in that~~ wherein at least one radio communication defining device is a wireless device whose radio distinctive defining signal ~~that defines the special area~~ is a distinctive wireless signal transmitted by the wireless device in a frequency range outside the frequency range allocated for the mobile telephone network, the said distinctive wireless signal ~~contains~~ containing wireless device identification data and reliable information confirming that the wireless device is effectively located into a predetermined environment, and the checking data associated ~~to~~ with this wireless device ~~includes this~~ including the wireless device identification data.

5. (currently amended) ~~A~~ The method according to claim 1, ~~characterized in that~~ wherein at least one radio communication defining device is a base station whose radio distinctive defining signal ~~that defines the special area~~ is a distinctive signal comprising a special mobile telephone network identification code, the checking data associated ~~to~~ with this base station ~~includes~~ including this special mobile telephone network identification code.

6. (currently amended) ~~A~~ The method according to claim 1, ~~characterized in that~~ wherein at least one radio communication defining device is a base station whose radio distinctive defining signal ~~that defines the special area~~ is a distinctive base station identity signal comprising an identification code of the base station, the checking data associated ~~to~~ with this base station ~~includes~~ including this base station identification code.

7. (currently amended) ~~A~~ The method according to claim 1, ~~characterized in that~~ wherein the special operating means ~~store~~ comprise a parameters database linking the special area to the mobile station and to a set of ~~at least the~~ one or more operating parameters,; and ~~the special operating means adapt the~~ a value of at least ~~an~~ one operational parameter of this set is adapted

when ~~they receive~~ an updating signal signalling that the mobile station exits or enters the special area is received.

8. (currently amended) ~~A~~ The method according to claim 1, ~~characterized in that~~ wherein the operating parameter is a tariff flag or a service flag that enables or disables a special tariff ~~('XXX','PPP')~~ or a service ~~('YYY','ZZZ','QQQ','RRR')~~ for the mobile station.

9. (currently amended) ~~A~~ The method according to claim 1, ~~characterized in that~~ wherein the updating signal includes a request to access ~~to~~ a service ~~('AAA', 'BBB')~~ or ~~to a~~ multimedia content ~~('AAA', 'BBB')~~ and the mobile telephone network routes this request to a part of the special operating means that allow or forbid the provision of this service or multimedia content depending on. whether or not the mobile station is into the special area.

10. (currently amended) ~~A~~ The method according to claim 1, ~~characterized in that~~ wherein ~~the transmission of the checking data to~~ the mobile station receives the checking data from ~~is done via~~ the mobile telephone network or ~~via~~ a signal of ~~a~~ at least one radio device or from manual input ~~via a person introducing the checking data in the mobile station~~.

11. (currently amended) A mobile system for monitoring the presence of a mobile station in a special area defined for this mobile station, said system comprising:

~~checking means for detecting the presence of the mobile station in the special area associated to this mobile station, said checking means including :~~ At least one radio communication defining device for transmitting repeatedly a radio distinctive defining signal that at least partially defines the special area in at least ~~a~~ one channel ~~a radio distinctive defining signal that defines the special area~~,

~~in the~~ a mobile station, comprising:

storage for storing a checking data and further comprising

observing means for observing ~~the~~ said at least one channel and

processing means for processing any received signal ~~received in the channel~~ in order to determine whether or not the signal received is a defining signal and, if the signal received is a defining signal, for determining based on the checking data whether or not

the signal received is a distinctive defining signal ~~that defines the special area~~ and

whether or not the mobile station is present in the special area, and further comprising,

transmission means for sending an updating signal regarding the presence of the mobile station in the special area from the processing means to special operating means included at least partly in data processing means of the mobile telephone network,

~~the~~ special operating means for adapting the value of at least one operating parameter depending on the presence of the mobile station in the special area~~,~~

~~characterized in that the said mobile system comprises storing means for storing a checking data in the mobile station, the processing means include means for using his checking data for determining whether or not the defining signal received is a distinctive defining signal that defines, alone or with other distinctive defining signals, the special area and the same checking data is sent to any mobile station whose presence in this special area is monitored~~.

12. (currently amended) ~~A~~ The ~~mobile~~ system according to claim 11, ~~characterized in that~~ wherein the mobile system comprises special area location monitoring means for monitoring the correct location of at least a part of the special area.

13. ~~A mobile system according to claim 11, characterized in that the mobile system carries out a method according to claim 1.~~

14. ~~A server, characterized in that it contains at least some of the special operating means included in the mobile system according to claim 1.~~

15. ~~A radio communication defining device, characterized in that it carries out a method according to any one of the claim 1.~~

16. (currently amended) A radio communication defining device, arranged to transmit on at least one channel a distinctively defining radio signal that at least partially defines a special area by its coverage, ~~according to claim 15, characterized in that~~ wherein ~~the~~ said radio communication defining device is a wireless device, ~~and it contains means for transmitting a distinctive wireless signal that defines the special area and~~ provided with means for obtaining reliable information

indicating whether or not the said wireless device is located ~~into~~ a predetermined environment.

17. (currently amended) A mobile station~~, characterized in that this mobile station~~ that is ~~suitable~~ adapted to ~~carry out a method according to claim 1~~ observe a channel and processes any received signal in order to determine whether or not it is receiving a defining signal, to process any received defining signal and to determine, based on a previously obtained checking data, whether or not the defining signal received is a distinctive defining signal that at least partially defines a special area, to determine whether or not it is present in the special area, and to send an updating signal to a mobile telephone network about its presence in the special area.

REMARKS

This Amendment, in connection with the following remarks, is submitted as fully responsive to the Office Action. Claims 1-17 were pending. By this Amendment, claims 1-12 and 16-17 have been amended, and claims 13-15 have been canceled without prejudice to refile or as to subject matter. Claims 1, 11, 16 and 17 are the independent claims.

Claim Objections

In the Office Action, claims 13 and 14 were objected to as being in improper form. In light of the cancelation of these claims, these objections are rendered moot.

35 U.S.C. §112 Rejections

In the Office Action, claim 14 stands rejected under 35 U.S.C. §112, fourth paragraph. In light of the cancelation of claim 14, this rejection has been rendered moot.

35 U.S.C. §103 Rejections

In the Office Action, claims 1-3, 6-12 and 14-17 stand rejected under 35 U.S.C. §103(a), as unpatentable over U.S. Patent No. 6,785,536 to Lee, et al. ("Lee") in view of U.S. Patent No. 6,920,317 to Muhonen ("Muhonen"). Additionally, claim 4 stands rejected under 35 U.S.C. §103(a) as unpatentbale over Lee in view of U.S. Patent No. 6,671,506 to Lee ("Lee '506"), and claim 5 stands rejected under 35 U.S.C. §103(a) as unpatentbale over Lee in view of U.S. Patent No. 6,826,414 to Reynolds, et al. ("Reynolds").

The claimed invention relates to systems and methods for monitoring the presence of a mobile station in at least one special area associated with the mobile station. Claim 1 has been amended to specify that a Radio Communication Defining Device (RCDD) at least partially defines a special are by its coverage. Basis for this amendment may be found in Fig. 3 (and, for example, page 17 of the Specification) in which a special area is defined by the sum of coverage of a number of base stations. A similar example may be found in Fig. 2 (and pages 14 and 15 of the Specification). Claim 1 has further been amended to clarify that the mobile station itself determines whether or not it is present in the special area. Basis for this amendment may be found throughout the Specification, and in particular, for example, in the last paragraph of page 10. Finally, independent claims 16 has been amended to incorporate the features of former claim 15, and independent claim 17 has been amended to include relevant features of claim 1.

Rejection of Claim 1

Claim 1, as amended, recites a method for monitoring the presence of a mobile station in at least one special area associated with the mobile station. The method includes (a) at least one radio communication defining device transmits a radio distinctive defining signal repeatedly in at least one channel that at least partially defines the special area by its coverage, (b) the mobile station observes the channel and processes any received signal in order to determine whether or not it is receiving defining signal, (c) the mobile station processes any received defining signal and determines whether or not the defining signal received is a distinctive defining signal that at least partially defines the special area, and determines whether or not it is present in the special area, (d) the mobile station sends an updating signal to a mobile telephone network about its presence in the special area, (e) the mobile telephone network routes the updating signal to

special operating means that adapt the value of at least one operating parameter depending on the presence of the mobile station in the special area. It is further provided that the special area is associated with the mobile station by transmitting a checking data to the mobile station, this checking data being sent to any mobile station whose presence in the special area is monitored and being used by the mobile stations for determining whether or not the defining signal received is a distinctive defining signal that defines, alone or with other distinctive defining signals, the special area associated with the mobile station.

An interesting feature of the claimed method is the fact that it is the mobile station itself that identifies whether it is within the special area based solely upon what checking data is included in the radio distinctive defining signals that it receives. There is no need for such a mobile station to query a mobile network as to whether it is in or is not in such a special area.

In the Office Action, the Examiner read the Lee reference on claim elements (a) through (d), and combined that reference with Muhonen, which was read on claim element (e). Applicants respectfully traverse, and assert that neither Lee nor Muhonen teach elements (a) through (d) of independent claim 1. As a result, claim 1 is urged as patentable over Lee and Muhonen.

Contrary to what is asserted in the Office Action, Lee et al. does not disclose an RCDD that at least partially defines a special area by its coverage. In Lee et al, the special area in the sense of claim 1 is to be regarded as the home zone. Such a home zone is not defined, neither completely nor partially by the coverage of the RCDD. Presence of the home zone is determined in Lee et al., by reception of a signal in the MSC from a base station, but the home zone is completely independent of the coverage of any cell. This is also why the calculation of a Round Trip Delay (RTD) is needed in Lee et al.

Furthermore, contrary to claim 1, as amended, Lee does not teach or suggest that the mobile station itself can determine whether or not it is present in a special area. Rather, Lee (col. 5, lines 37 – 63) discloses the mobile station receiving a base station ID and a sector ID which potentially may indicate its presence in a special area. The mobile station transmits a standard location registration request. The base station (not the mobile station) calculates the RTD and transmits this information to the MSC. The MSC retrieves the $RTD_{first\text{-}value}$ and $RTD_{second\text{-}value}$ from the DBM. Then the MSC determines, based on this information, whether the mobile station is in a special area or not (see particularly col. 5, lines 52 – 56).

It is additionally noted that the location registration request (which was interpreted by the Examiner in the Office Action as the updating signal indicating the presence of a mobile phone in a special area) does not and cannot comprise information about whether the mobile station is present in a special area. This location registration request can therefore also not be considered an updating signal as defined in claim 1. This is thus a further claim limitation that is not taught by Lee, and is specifically not taught in col. 5, lines 41 – 42 as asserted in the Office Action.

As regards Muhonen, the Examiner points to the LSA lists in Muhonen as checking data being sent to all mobile stations. However, Muhonen at least does not disclose the mobile station itself being able to determine whether or not it is present in a special area (*see*, e.g., Muhonen at claims 3 and 9 and Abstract, a "radio control element" (BSC) is used to determine whether a mobile station is in a special cell or not). Because at least this same feature is also missing in Lee, the combination of Lee et al. and Muhonen does not teach all of the features of claim 1, so the *prima facie* case for obviousness fails.

Rejection of Claim 11

The same reasoning applies, mutatis mutandis, to claim 11. As explained above, Lee does not disclose an RCDD that at least partially defines a special area by its coverage. Further, Lee does not teach or suggest a mobile station determining whether or not it is present in a special area. (And, it is noted, neither does Muhonen).

Rejection of Claim 16

Regarding claim 16, as explained above, Lee does not disclose an RCDD that (at least partially) defines a special area by its coverage. Further, Lee also does not disclose an RCDD comprising means for obtaining reliable information indicating whether or not the it is located in a predetermined environment. Lee, at col. 5, lines 42 – 61. The calculation of the RTD in Lee is related to calculation the position of the mobile station, not of the RCDD.

Muhonen also does not disclose anything similar.

Claim 17

As noted above, claim 17 has now been rewritten as an independent claim, incorporating relevant elements of claim 1. Claim 17 is thus also patentable over the cited art, for the same reasons as claim 1.

Rejection of Dependent Claims 2-10 and 12

Dependent claims 2-10 and 12 are urged as allowable for at least the same reasons as the independent claims, as discussed above. Moreover, neither Lee '506 nor Reynolds, (cited in the

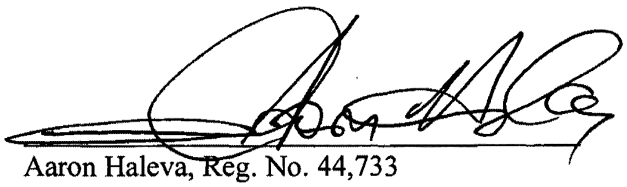
rejections of claims 4 and 5, respectively) are seen as curing the defects of Lee and Muhonen as references against the independent claims.

Additionally, and particularly with respect to the rejection of claim 5 over Lee in view of Reynolds, as the Examiner implicitly admits in his rejection of claim 1, Lee does not disclose a method according to claim 1 (contrary to what is asserted under point 6 of the Office Action, at pages 14-15). As argued above, at least the feature of the mobile station being able to determine itself whether or not it is present in a special area was not disclosed in Lee. Further, Reynolds does not disclose this feature (*see, e.g.* Reynolds at column 6, lines 12-15: presence in a special area is determined by the MSC when it checks if the subscriber identity is stored in the second portion of the HLR).

Thus, the various objections and rejections having been overcome, all currently pending claims are urged as patentable over the cited art. Notice to that effect, and early passage to issue, is earnestly requested.

No additional fees are believed to be due in connection with this paper. However, if any fee is due, the Director is hereby authorized to charge such fee to Deposit Account No. 50-0540.

Respectfully submitted,

Dated: **February 13, 2012** By: 

Aaron Haleva, Reg. No. 44,733
Attorney for Applicants
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PTO/SB/06 (07-06)
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PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number	Filing Date	☐ To be Mailed
12/294,641	04/12/2010	

APPLICATION AS FILED – PART I

	(Column 1)	(Column 2)	SMALL ENTITY ☒		OR	OTHER THAN SMALL ENTITY	
FOR	NUMBER FILED	NUMBER EXTRA	RATE ($)	FEE ($)		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =		OR	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =			X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT 02/16/2012	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE ($)	ADDITIONAL FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	* 14	Minus	** 20	= 0	X $30 =	0	OR	X $ =	
Independent (37 CFR 1.16(h))	* 3	Minus	***3	= 0	X $125 =	0	OR	X $ =	
☐ Application Size Fee (37 CFR 1.16(s))									
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
					TOTAL ADD'L FEE	0	OR	TOTAL ADD'L FEE	

AMENDMENT	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)	OR	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =		OR	X $ =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =		OR	X $ =	
☐ Application Size Fee (37 CFR 1.16(s))									
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
					TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

Legal Instrument Examiner:
/BONNIE COLE/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/294,641	04/12/2010	Carlos Alberto P¿rez Lafuente	062403/00002	1871

31013 7590 10/12/2011

KRAMER LEVIN NAFTALIS & FRANKEL LLP
INTELLECTUAL PROPERTY DEPARTMENT
1177 AVENUE OF THE AMERICAS
NEW YORK, NY 10036

EXAMINER	
CHANG, JEAN	
ART UNIT	PAPER NUMBER
2617	

NOTIFICATION DATE	DELIVERY MODE
10/12/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

klpatent@kramerlevin.com

Office Action Summary	Application No.	Applicant(s)	
	12/294,641	P REZ LAFUENTE, CARLOS ALBERTO	
	Examiner	Art Unit	
	JEAN CHANG	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 April 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5)☒ Claim(s) *1-12 and 14-17* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1-12 and 14-17* is/are rejected.

8)☒ Claim(s) *13* is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☒ The drawing(s) filed on *26 January 2010* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

12)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/26/2008*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. **Claim 13 is objected to under 37 CFR 1.75(c) as being in improper form** because Claim 13 states: a mobile system according to claim 11 carrying out the method according to claim 1. The claim is an improper multiple dependent claim. A multiple dependent claim should refer to other claims **in the alternative only**. Claim 13 depends on claim 11 and on claim 1, thus, improper. See MPEP § 608.01(n). Accordingly, the claim 13 not been further treated on the merits.

2. **Claim 14 is objected to because of the following informalities**: Claim 14 states "… in the mobile system according to claim 1". Claim 1 is a method, not a mobile system". Claim 14 should state "… in the mobile system of claim 11" and is assumed that way during examination. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. **Claim 14 is rejected under 35 U.S.C. 112, fourth paragraph as being of improper dependent form for failing to further limit the subject matter of a previous claim.** If claim 14 is dependent on claim 11, claim 14 recites a server containing at least some of the special operating means included in the system according to claim 11. This dependent claim fails to limit the parent claim. It goes broader, instead of narrower.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a):

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows: *(See MPEP Ch. 2141)*

a. Determining the scope and contents of the prior art;
b. Ascertaining the differences between the prior art and the claims in issue;
c. Resolving the level of ordinary skill in the pertinent art; and
d. Evaluating evidence of secondary considerations for indicating obviousness or nonobviousness.

4. Claims 1-3, 6-12 and 14-17 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Lee et al. (US Patent No. 6,785,536) in view of Muhonen (US Patent No. 6,920,317).

Claim 1.

Lee et al. teach

A method for monitoring the presence of a mobile station (FIG. 6:MS) *in at least one special area* (FIG. 4, home zone, col. 4, lines 30-53) *associated to the mobile station, the method comprising the following steps:*

(a) at least one radio communication defining device (FIG. 6:BS) *transmits repeatedly in at least a channel one radio distinctive defining signal* (FIG. 6:62,

section id/BTS id) *that defines the special area by its coverage* (col. 5, lines 37-38),

(b) the mobile station observes the channel and process any signal received in order to determine whether or not it is receiving any defining signal (col. 5, lines 38-40),

(c) the mobile station processes any defining signal received in order to determine whether or not the defining signal received is a distinctive defining signal that defines the special area (FIG. 6:63, col. 5, lines 38-40),

(d) the mobile station sends an updating signal to a mobile telephone network about its presence in the special area (FIG. 6:64, col. 5, lines 41-42),

(e) the mobile telephone network (FIG. 6:MSC) *routes the updating signal to special operating means that adapt the value of at least one operating parameter depending on the presence of the mobile station in the special area* (FIG. 6:69, col. 5, lines 52-61; col. 1, lines 26-30),

the said method is characterized in that the special area is associated to the mobile station by a checking data (FIG. 6:61, col. 5, lines 35-36), *this checking data being used by the mobile station for determining whether or not the defining signal received is a distinctive defining signal that defines, alone or with other distinctive defining signals, the special area associated to the mobile station* (col. 5, lines 35-40).

Lee et al. does not elaborate on that the special area is associated to the mobile station

by transmitting to the mobile station a checking data, and

the same checking data being sent to any mobile station whose presence in this special area is monitored.

In the similar field of endeavor, Muhonen teach that the special area is associated to the mobile station

by transmitting to the mobile station a checking data (col. 5, lines, 58-59, lines 66-67) *and*

the same checking data being sent to any mobile station whose presence in this special area is monitored (col. 2, lines 25-42; col. 1, lines 47-48).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Muhonen into the method of Lee et al. to transmit the checking data such as localized service area to the mobile station.

The motivation to combine is so that the network operator may control and define the subscriber's localized service area as stated by Muhonen (col. 5, lines 58-59).

Claim 2.

Lee et al. in combination with Muhonen teach

A method according to claim 1, characterized in that the special area is deactivated for the mobile station (Muhonen, col. 5, lines 37-46) *by the mobile telephone network sending a deactivation signal to the mobile station to stop the mobile station from recognizing a defining signal that defines that special area as a distinctive one* (Muhonen, col. 5, lines 58-59, lines 66-67).

The motivation to combine is so that the network operator may control and define the subscriber's localized service area as stated by Muhonen (col. 5, lines 58-59).

Claim 3.

Lee et al. in combination with Muhonen teach

A method according to claim 1, characterized in that the special operating means acknowledge the reception of the updating signal and transmit an acknowledgement signal to the mobile station (Lee et al., FIG. 6:70a, col. 5, lines 56-59).

Claim 6.

Lee et al. in combination with Muhonen teach

A method according to claim 1, characterized in that at least one radio communication defining device is a base station whose radio distinctive defining signal that defines the special area is a distinctive base station identity signal comprising an identification code of the base station, the checking data associated to this base station includes this base station identification code (Lee et al., FIG. 6:62, col. 5, lines 37-40).

Claim 7.

Lee et al. in combination with Muhonen teach

A method according to claim 1, characterized in that the special operating means store a parameters database linking the special area to the mobile station and to a set of at least the operating parameter (Lee et al., FIG. 6:DBM, FIG. 4, col. 4, lines 30-53)*; and the special operating means adapt the value of at least an operational parameter of this set when they receive an updating signal signalling that the mobile station exits or enters the special area* (Lee et al., FIG. 6:69, col. 5, lines 52-61; col. 1, lines 26-30).

Claim 8.

Lee et al. in combination with Muhonen teach

A method according to claim 1, characterized in that the operating parameter is a tariff flag or a service flag that enables or disables a special tariff or a service for

the mobile station (Lee et al., FIG. 6:69, col. 5, lines 52-61; col. 1, lines 26-30).

Claim 9.

Lee et al. in combination with Muhonen teach

A method according to claim 1, characterized in that the updating signal includes a request to access to a service or to a multimedia content (Lee et al., FIG. 6:64, col. 5, lines 41-42) *and the mobile telephone network routes this request to a part of the special operating means that allow or forbid the provision of this service or multimedia content depending on whether or not the mobile station is into the special area* (Lee et al., FIG. 6:69, col. 5, lines 52-61; col. 1, lines 26-30).

Claim 10.

Lee et al. in combination with Muhonen teach

A method according to claim 1, characterized in that the transmission of the checking data to the mobile station is done via the mobile telephone network or via a signal of a at least one radio device or via a person introducing the checking data in the mobile station (Muhonen, col. 5, lines 58-59, lines 66-67).

The motivation to combine is so that the network operator may control and define the subscriber's localized service area as stated by Muhonen (col. 5, lines 58-59).

Claim 11.

Lee et al. teach

A mobile system for monitoring the presence of a mobile station in a special area defined for this mobile station, said system comprising: checking means for detecting the presence of the mobile station in the special area associated to this mobile station, said checking means including:

At least one radio communication defining device (FIG. 6:BS) *transmitting repeatedly in at least a channel a radio distinctive defining signal that defines the special area, in the mobile station* (FIG. 6:62, col. 5, lines 37-38),

observing means for observing the channel and processing means for processing any signal received in the channel in order to determine whether or not the signal received is a defining signal and, if the signal received is a defining signal, whether or not the signal received is a distinctive defining signal that defines the special area (FIG. 6:63, col. 5, lines 38-40),

transmission means for sending an updating signal regarding the presence of the mobile station in the special area from the processing means to special operating means included at least partly in data processing means of the mobile telephone network (FIG. 6:64, col. 5, lines 41-42),

the special operating means for adapting the value of at least one operating parameter depending on the presence of the mobile station in the special area

(FIG. 6:69, col. 5, lines 52-61; col. 1, lines 26-30), *characterized in that the said mobile system comprises*

storing means for storing a checking data in the mobile station (FIG. 6:61, col. 5, lines 35-36), *the processing means include means for using this checking data for determining whether or not the defining signal received is a distinctive defining signal that defines, alone or with other distinctive defining signals, the special area* (FIG. 6:63, col. 5, lines 35-40).

Lee et al. does not elaborate on

the same checking data is sent to any mobile station whose presence in this special area is monitored.

In the similar field of endeavor, Muhonen teach

the same checking data is sent to any mobile station whose presence in this special area is monitored (col. 5, lines, 58-59, lines 66-67; col. 2, lines 25-42; col. 1, lines 47-48).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Muhonen into the method of Lee et al. to transmit the checking data such as localized service area to the mobile station.

The motivation to combine is so that the network operator may control and define the subscriber's localized service area as stated by Muhonen (col. 5, lines 58-59).

Claim 12.

Lee et al. in combination with Muhonen teach

A mobile system according to claim 11, characterized in that the mobile system comprises special area location monitoring means for monitoring the correct location of at least a part of the special area (Lee et al., FIG. 6:65, col. 5, lines 42-56).

Claim 14.

Lee et al. in combination with Muhonen teach

A server (Lee et al., FIG. 6:MSC)*, characterized in that it contains at least some of the special operating means included in the mobile system according to claim 1* (Lee et al., FIG. 6:69, col. 5, lines 52-61; col. 1, lines 26-30).

Claim 15.

Lee et al. in combination with Muhonen teach

A radio communication defining device (Lee et al., FIG. 6:BS)*, characterized in that it carries out a method according to claim 1* (Lee et al., FIG. 6, col. 5, lines 28-64; Muhonen, col. 5, lines, 58-59, lines 66-67; col. 1, lines 47-48).

The motivation to combine is so that the network operator may control and define the subscriber's localized service area as stated by Muhonen (col. 5, lines 58-59).

Claim 16.

Lee et al. in combination with Muhonen teach

A radio communication defining device according to claim 15, characterized in that the said radio communication defining device is a wireless device and it contains means for transmitting a distinctive wireless signal that defines the special area (Lee et al., FIG. 6:62, col. 5, lines 37-38) *and means for obtaining reliable information indicating whether or not the said wireless device is located into a predetermined environment* (Lee et al., col. 5, lines 42-61).

Claim 17.

Lee et al. in combination with Muhonen teach

A mobile station (Lee et al., FIG. 6:MS)*, characterized in that this mobile station is suitable to carry out a method according to claim 1* (Lee et al., col. 5, lines 35-42).

5. **Claim 4 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Lee et al. (US Patent No. 6,785,536) in view of Lee (US Patent No. 6,671,506).**

Claim 4.

Lee et al. teach

A method according to claim 1, characterized in that at least one radio communication defining device (FIG. 6:BS) *is a wireless device whose radio distinctive defining signal that defines the special area is a distinctive wireless signal transmitted by the wireless device* (FIG. 6:62, col. 5, lines 37-38)*, the said distinctive wireless signal contains wireless device identification data and reliable information confirming that the wireless device is effectively located into a predetermined environment* (FIG. 6:62, col. 5, lines 37-40)*, the checking data associated to this wireless device includes this wireless device identification data* (FIG. 6:61, col. 5, lines 35-36).

Lee et al. does not elaborate on

a distinctive wireless signal transmitted by the wireless device in a frequency range outside the frequency range allocated for the mobile telephone network.

In the similar field of endeavor, Lee teach

a distinctive wireless signal transmitted by the wireless device in a frequency range outside the frequency range allocated for the mobile telephone network (FIG. 5:fi, col. 4, lines 47-53; FIG. 6, FIG. 7, col. 4, line 64 to col. 5, line 12).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Lee into the method of Lee et al. to transmit the distinctive wireless signal in a service specific frequency range to the mobile station.

The motivation to combine is to provide discrimination between the signal directed from the regular frequency allocated for telephone network and the signal directed from the home zone signal generator as stated by Lee (col. 4, lines 49-52).

6. **Claim 5 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Lee et al. (US Patent No. 6,785,536) in view of Reynolds et al. (US Patent No. 6,826,414).**

Claim 5.

Lee et al. teach *a method according to claim 1.*

Lee et al. does not elaborate on the method

characterized in that at least one radio communication defining device is a base station whose radio distinctive defining signal that defines the special area is a distinctive signal comprising a special mobile telephone network identification code, the checking data associated to this base station includes this special mobile telephone network identification code.

In the similar field of endeavor, Reynolds et al. teach *characterized in that at least one radio communication defining device is a base station* (FIG. 2:16, col. 4, lines 29-35, lines 39-42) *whose radio distinctive defining signal that defines the special area* (col. 6, lines 26-31) *is a distinctive signal comprising a special mobile telephone network identification code, the checking data associated to this base station includes this special mobile telephone network identification code* (col. 4, lines 43-52).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Reynolds et al. into the method of Lee et al. to transmit the distinctive wireless signal comprising a special network identification code.

The motivation to combine is to reuse a mobile communication network for additional network portion for special service which can conveniently be

distinguished by the use of different network identity code as stated by Reynolds et al. (col. 3, lines 24-29).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Chang whose telephone number is (571) 270-7979. The examiner can normally be reached on Mon-Thursday from 9:00-5:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Jinsong Hu can be reached on (571) 272-3965. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Jean Chang/
Examiner, Art Unit 2617

/MARIVELISSE SANTIAGO-CORDERO/
Primary Examiner, Art Unit 2617

Notice of References Cited	Application/Control No. 12/294,641	Applicant(s)/Patent Under Reexamination P REZ LAFUENTE, CARLOS A	
	Examiner JEAN CHANG	Art Unit 2617	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-6,671,506 B1	12-2003	Lee, Yun-Hee	455/406
*	B	US-6,785,536 B1	08-2004	Lee et al.	455/408
*	C	US-6,826,414 B1	11-2004	Reynolds et al.	455/555
*	D	US-6,920,317 B1	07-2005	Muhonen, Ahti	455/405
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12294641	P REZ LAFUENTE, CARLOS ALBERTO
	Examiner	**Art Unit**
	JEAN CHANG	2617

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	09/26/2011								
	1	✓								
	2	✓								
	3	✓								
	4	✓								
	5	✓								
	6	✓								
	7	✓								
	8	✓								
	9	✓								
	10	✓								
	11	✓								
	12	✓								
	13	O								
	14	✓								
	15	✓								
	16	✓								
	17	✓								

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12294641	P REZ LAFUENTE, CARLOS ALBERTO
	Examiner	Art Unit
	JEAN CHANG	2617

SEARCHED			
Class	Subclass	Date	Examiner
455	456.4	9/28/2011	jc

SEARCH NOTES		
Search Notes	Date	Examiner
inventor search on East databases	9/28/2011	jc
search East databases for special/distint/different/preferred/discount service/tariff/rate/charging/billing service/area/zone base station/AP/area	9/28/2011	jc

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner

Doc code :IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (08-08)
Approved for use through 08/31/2008. OMB 0651-0031
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT
(Not for submission under 37 CFR 1.99)

Application Number	
Filing Date	
First Named Inventor	PÉREZ LAFUENTE, Carlos Alberto
Art Unit	2617
Examiner Name	Jean Chang
Attorney Docket Number	062403-00002

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	6334052	B1	2001-12-25	Nordstrand	
	2	6785536	B1	2004-08-31	Lee et al.	
	3	6826414	B1	2004-11-30	Reynolds, et al.	

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Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
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Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1							☐

/Jean Chang/ (09/26/2011)
ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.C./

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	12294641 - GAU: 2617
	Filing Date	
	First Named Inventor	PÉREZ LAFUENTE, Carlos Alberto
	Art Unit	2617
	Examiner Name	Jean Chang
	Attorney Docket Number	062403-00002

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NON-PATENT LITERATURE DOCUMENTS [Remove]

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1		☐

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EXAMINER SIGNATURE

Examiner Signature	/Jean Chang/ (09/26/2011)	Date Considered	09/26/2011

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.C./

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	5	"6785536"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/30 18:40
L2	6	"6920317"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/30 18:42
S1	29	"6334052"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/26 17:50
S2	5	"6785536"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/26 17:55
S3	20	"6826414"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/26 17:56
S4	4	"20020094801"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 08:40
S5	4	"2000027152"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 08:42
S6	4	"7212804"	US-PGPUB;	ADJ	ON	2011/09/28

			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			08:44
S7	3	"20080004045"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 09:17
S8	3	"20030092450"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 09:20
S9	14589	(special or distint or different or preferred or discount) near10 (service or tarrif or rate) near10 (area or coverage)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 09:27
S10	2969	(special or distint or different or preferred or discount) near10 (service or tarrif or rate) near10 (area or coverage) same (signal or code or identifier or identification or parameter or flag)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 09:29
S11	607	(special or distint or different or preferred or discount) near10 (service or tarrif or rate) near10 (area or coverage) same (signal or code or identifier or identification or parameter or flag) same ((base station) or cell or AP)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 09:30
S12	236	(special or distint or different or preferred or discount) near10 (service or tarrif or rate) near10 (area or coverage) same (signal or code or identifier or identification or parameter or flag) same ((base station) or cell or AP) and monitor	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 09:30
S13	308	(special or distint or different or preferred or discount) near10 (service or tarrif or rate) near10 (area or coverage) same (signal or code or identifier or identification or parameter or flag) same ((base station) or cell or AP) and (monitor or presence)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 09:31
S14	52	(special or distint or different or preferred or discount) near10 (service or tarrif or rate) near10 (area or coverage) same (signal or code or identifier or identification or parameter or flag) same ((base station) or cell or	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	ADJ	ON	2011/09/28 09:31

		AP) and (monitor or presence) and multimedia	IBM_TDB			
S15	1006	(special or distint or different or preferred or discount) near20 (service or tarrif or rate or billing or charg$3 or zone) near20 (area or coverage) same (signal or code or identifier or identification or parameter or flag) same ((base station) or cell or AP)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:44
S16	399	S15 not S11	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:44
S17	16	S16 and special service	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:45
S18	18	S16 and (special or distinct) (service or zone)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:45
S19	19	S16 and (special or distinct) (service or zone or area)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:45
S20	313	455/456.4.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:48
S21	6	"lafuente, carlos".inv.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:48
S22	1	S20 and S16	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:49
S23	16	"6625442"	US-PGPUB; USPAT; USOCR;	ADJ	ON	2011/09/28 10:49

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S24	20	"6516193"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2011/09/28 10:52

9/30/2011 6:46:39 PM
C:\Users\jchang7\Documents\EAST\Workspaces\12294641.wsp

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BIB DATA SHEET

CONFIRMATION NO. 1871

SERIAL NUMBER	FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
12/294,641	04/12/2010 RULE	455	2617	062403/00002

APPLICANTS

Carlos Alberto P¿rez Lafuente, Madrid, SPAIN;

**** CONTINUING DATA ***************************

This application is a 371 of PCT/EP2007/052939 03/27/2007

**** FOREIGN APPLICATIONS ***************************

EUROPEAN PATENT OFFICE (EPO) PCT/EP2007/052939 03/27/2007
EUROPEAN PATENT OFFICE (EPO) 06111804.8 03/28/2006

**** IF REQUIRED, FOREIGN FILING LICENSE GRANTED **** ** SMALL ENTITY **

04/17/2010

Foreign Priority claimed	Met after Allowance	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
☑ Yes ☐ No	☐	SPAIN	7	17	2
35 USC 119(a-d) conditions met ☑ Yes ☐ No					
Verified and Acknowledged /JEAN CHANG/ Examiner's Signature	Initials				

ADDRESS

KRAMER LEVIN NAFTALIS & FRANKEL LLP
INTELLECTUAL PROPERTY DEPARTMENT
1177 AVENUE OF THE AMERICAS
NEW YORK, NY 10036
UNITED STATES

TITLE

METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECIAL AREA

FILING FEE RECEIVED		
540	FEES: Authority has been given in Paper No._____ to charge/credit DEPOSIT ACCOUNT No._____ for following:	☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other _____ ☐ Credit

BIB (Rev. 05/07).

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
12/294,641	04/12/2010	Carlos Alberto Pérez Lafuente	062403/00002

CONFIRMATION NO. 1871

31013
KRAMER LEVIN NAFTALIS & FRANKEL LLP
INTELLECTUAL PROPERTY DEPARTMENT
1177 AVENUE OF THE AMERICAS
NEW YORK, NY 10036

PUBLICATION NOTICE

OC00000042804711

Title:METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECIAL AREA

Publication No.US-2010-0190508-A1
Publication Date:07/29/2010

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently http://www.uspto.gov/patft/.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Office of Public Records. The Office of Public Records can be reached by telephone at (703) 308-9726 or (800) 972-6382, by facsimile at (703) 305-8759, by mail addressed to the United States Patent and Trademark Office, Office of Public Records, Alexandria, VA 22313-1450 or via the Internet.

In addition, information on the status of the application, including the mailing date of Office actions and the dates of receipt of correspondence filed in the Office, may also be accessed via the Internet through the Patent Electronic Business Center at www.uspto.gov using the public side of the Patent Application Information and Retrieval (PAIR) system. The direct link to access this status information is currently http://pair.uspto.gov/. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Office of Data Managment, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

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U.S. APPLICATION NUMBER NO.	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
12/294,641	Carlos Alberto Pérez Lafuente	062403/00002

31013
KRAMER LEVIN NAFTALIS & FRANKEL LLP
INTELLECTUAL PROPERTY DEPARTMENT
1177 AVENUE OF THE AMERICAS
NEW YORK, NY 10036

INTERNATIONAL APPLICATION NO.	
PCT/EP2007/052939	
I.A. FILING DATE	PRIORITY DATE
03/27/2007	03/28/2006

CONFIRMATION NO. 1871
371 ACCEPTANCE LETTER

OC000000041171307

Date Mailed: 04/22/2010

NOTICE OF ACCEPTANCE OF APPLICATION UNDER 35 U.S.C 371 AND 37 CFR 1.495

The applicant is hereby advised that the United States Patent and Trademark Office in its capacity as a Designated / Elected Office (37 CFR 1.495), has determined that the above identified international application has met the requirements of 35 U.S.C. 371, and is ACCEPTED for national patentability examination in the United States Patent and Trademark Office.

The United States Application Number assigned to the application is shown above and the relevant dates are:

04/12/2010	04/12/2010
DATE OF RECEIPT OF 35 U.S.C. 371(c)(1), (c)(2) and (c)(4) REQUIREMENTS	DATE OF COMPLETION OF ALL 35 U.S.C. 371 REQUIREMENTS

A Filing Receipt (PTO-103X) will be issued for the present application in due course. **THE DATE APPEARING ON THE FILING RECEIPT AS THE " FILING DATE" IS THE DATE ON WHICH THE LAST OF THE 35 U.S.C. 371 (c)(1), (c)(2) and (c)(4) REQUIREMENTS HAS BEEN RECEIVED IN THE OFFICE. THIS DATE IS SHOWN ABOVE.** *The filing date of the above identified application is the international filing date of the international application (Article 11(3) and 35 U.S.C. 363).* Once the Filing Receipt has been received, send all correspondence to the Group Art Unit designated thereon.

The following items have been received:

- Indication of Small Entity Status
- Copy of the International Application filed on 09/26/2008
- Copy of the International Search Report filed on 09/26/2008
- Preliminary Amendments filed on 09/26/2008
- Information Disclosure Statements filed on 09/26/2008
- Oath or Declaration filed on 04/12/2010
- Request for Immediate Examination filed on 09/26/2008
- U.S. Basic National Fees filed on 09/26/2008
- Priority Documents filed on 09/26/2008

FORM PCT/DO/EO/903 (371 Acceptance Notice)

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

VALERIE A JACKSON

Telephone: (703) 756-1443

FORM PCT/DO/EO/903 (371 Acceptance Notice)

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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
12/294,641	04/12/2010	2617	540	062403/00002	17	2

CONFIRMATION NO. 1871

31013
KRAMER LEVIN NAFTALIS & FRANKEL LLP
INTELLECTUAL PROPERTY DEPARTMENT
1177 AVENUE OF THE AMERICAS
NEW YORK, NY 10036

FILING RECEIPT

OC000000041171306

Date Mailed: 04/22/2010

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

Applicant(s)

Carlos Alberto Pérez Lafuente, Madrid, SPAIN;

Power of Attorney: The patent practitioners associated with Customer Number 31013

Domestic Priority data as claimed by applicant

This application is a 371 of PCT/EP2007/052939 03/27/2007

Foreign Applications

EUROPEAN PATENT OFFICE (EPO) PCT/EP2007/052939 03/27/2007
EUROPEAN PATENT OFFICE (EPO) 06111804.8 03/28/2006

If Required, Foreign Filing License Granted: 04/17/2010

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 12/294,641**

Projected Publication Date: 07/29/2010

Non-Publication Request: No

Early Publication Request: No
** **SMALL ENTITY** **

Title

METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECIAL AREA

Preliminary Class

455

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

LICENSE FOR FOREIGN FILING UNDER

Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

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Customer No. 31013

PATENT
062403/00002

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	:	Carlos Alberto Pérez Lafuente
Serial No.	:	12/294,641
Filed	:	September 26, 2008
U.S. National Phase of	:	PCT/EP2007/052939
International Filing Date	:	March 27, 2007
For	:	**METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECICAL AREA**
Confirmation No.	:	1871

RESPONSE TO NOTIFICATION OF MISSING REQUIREMENTS UNDER 35 U.S.C. 371 IN THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US)

Mail Stop Missing Parts
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Notification of Missing Requirements under 35 U.S.C. 371 in the United States Designated/Elected Office (DO/EO/US) mailed February 16, 2010, applicant encloses the following documents:

1. A Declaration and Power of Attorney signed by the inventor which identifies the application by international application number and international filing date and;

2. A copy of the 371 Formalities Letter mailed February 16, 2010.

Customer No. 31013

PATENT
062403/00002

The Director is authorized to charge the surcharge of $65.00 for late filing of the Declaration and Power of Attorney, for a small entity, to Deposit Account No. 50-0540.

In the event that any additional fees are due, please charge Deposit Account No. 50-0540.

Respectfully submitted,

KRAMER LEVIN NAFTALIS & FRANKEL LLP
Attorneys for Applicant

Dated: April 12, 2010

By: /Aaron S. Haleva/

Aaron S. Haleva, Esq. Reg. 44,733
1177 Avenue of the Americas
New York, New York 10036
Phone: 212 715-9100
Fax: 212 715-8000

KL3 2772370.1

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U.S. APPLICATION NUMBER NO.	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
12/294,641	Carlos Alberto PÃ#REZ LAFUENTE	062403/00002

31013
KRAMER LEVIN NAFTALIS & FRANKEL LLP
INTELLECTUAL PROPERTY DEPARTMENT
1177 AVENUE OF THE AMERICAS
NEW YORK, NY 10036

INTERNATIONAL APPLICATION NO.	
PCT/EP2007/052939	
I.A. FILING DATE	PRIORITY DATE
03/27/2007	03/28/2006

CONFIRMATION NO. 1871
371 FORMALITIES LETTER

OC000000040062539

Date Mailed: 02/16/2010

NOTIFICATION OF MISSING REQUIREMENTS UNDER 35 U.S.C. 371 IN THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US)

The following items have been submitted by the applicant or the IB to the United States Patent and Trademark Office as an Elected Office (37 CFR 1.495):

- Indication of Small Entity Status
- Priority Document
- Copy of the International Application filed on 09/26/2008
- Copy of the International Search Report filed on 09/26/2008
- Preliminary Amendments filed on 09/26/2008
- Information Disclosure Statements filed on 09/26/2008
- Request for Immediate Examination filed on 09/26/2008
- U.S. Basic National Fees filed on 09/26/2008
- Priority Documents filed on 09/26/2008

The applicant needs to satisfy supplemental fees problems indicated below.

The following items **MUST** be furnished within the period set forth below in order to complete the requirements for acceptance under 35 U.S.C. 371:

- Oath or declaration of the inventors, in compliance with 37 CFR 1.497(a) and (b), identifying the application by the International application number and international filing date.
- To avoid abandonment, a surcharge (for late submission of filing fee, search fee, examination fee or oath or declaration) as set forth in 37 CFR 1.492(h) of $65 for a small entity in compliance with 37 CFR 1.27, must be submitted with the missing items identified in this letter.

SUMMARY OF FEES DUE:

Total additional fees required for this application is **$65** for a Small Entity:
- **$65** Surcharge.

ALL OF THE ITEMS SET FORTH ABOVE MUST BE SUBMITTED WITHIN TWO (2) MONTHS FROM THE DATE OF THIS NOTICE OR BY 32 MONTHS FROM THE PRIORITY DATE FOR THE APPLICATION, WHICHEVER IS LATER. FAILURE TO PROPERLY RESPOND WILL RESULT IN ABANDONMENT.

The time period set above may be extended by filing a petition and fee for extension of time under the provisions of 37 CFR 1.136(a).

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

FORM PCT/DO/EO/905 (371 Formalities Notice)

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https://sportal.uspto.gov/authenticate/AuthenticateUserLocalEPF.html

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If you are not using EFS-Web to submit your reply, you must include a copy of this notice.

SHELBY J MILLER

Telephone: (571) 272-0384

DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:
My residence, post office address and citizenship are as stated below next to my name.

This declaration is of the following type: *(check one)* ☐ utility; ☐ design;

☐ supplemental; ☒ national stage of PCT

I believe I am the original, first and sole inventor *(if only one name is listed below)* or an original, first and joint inventor *(if multiple names are listed below)* of the subject matter which is claimed and for which a patent is sought on the invention entitled:

METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECIAL AREA

the specification of which: *(check one)* ☐ is attached hereto; ☐ was filed on _____ as Application Serial No. _____ and is/was amended on _____ *(if applicable)*; ☒ was described and claimed in PCT International Application No. **PCT/EP07/52939** filed on **March 27, 2007** as amended under PCT Article 19 on _____ *(if any)*.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the patentability of this application as defined in Title 37, Code of Federal Regulations, § 1.56.

I hereby identify and claim priority to, and the benefit of, the filing dates to the following applications below under the following provisions:

(i) Title 35, United States Code §§ 119(a)-(d) or §§ 365(a)-(b) of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America, filed within 12 months (6 months for design) prior to this application;

(ii) Title 35, United States Code, § 119(e) of any United States provisional application(s); and/or

(iii) Title 35, United States Code, § 120 of any United States application(s), or § 365(c) of any PCT International Application designating the United States of America and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of Title 35, United States Code, § 112:

EP 06111804.8	March 28, 2006	pending
(Application Serial No.)	(Filing date)	(patent, pending, abandoned)
PCT/EP2007/052939	March 27, 2007	pending
(Application Serial No.)	(Filing date)	(patent, pending, abandoned)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

And I hereby appoint all of the firm of Kramer Levin Naftalis & Frankel LLP, 1177 Avenue of the Americas, New York, New York, 10036, United States of America, including all of the attorneys of **CUSTOMER NO. 31013** as my attorneys with full powers of substitution and revocation, to complete this document by adding the serial number of our application, to prosecute this application, to make alterations and amendments therein, to file continuation and divisional applications thereof, to receive the Patent, and to transact all business in the Patent and Trademark Office and in the Courts in connection therewith, and specify that all communications about the application are to be directed to the correspondence address of **CUSTOMER NO. 31013**.

Wherefore I pray that Letters Patent be granted to me for the invention or discovery described and claimed in the foregoing specification and claims, and I hereby subscribe my name to the foregoing specification and claims, declaration, power of attorney, and this petition.

Full name of first inventor: **Carlos Alberto PÉREZ LAFUENTE**
Residence: c/Julio Palacios, 13, Esc. Izq. 8°E, Madrid, Spain 28029
Citizenship: Spain
Post Office Address: Same

Inventor's signature: _____ Date: 19 MARCH 2010

(check one) Sheets containing additional joint inventors ☐ are, ☒ are not, attached hereto.

Electronic Patent Application Fee Transmittal

Application Number:	12294641
Filing Date:	
Title of Invention:	METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECIAL AREA
First Named Inventor/Applicant Name:	Carlos Alberto PÃ‰REZ LAFUENTE
Filer:	Aaron Haleva/Jenny Lynn Stewart
Attorney Docket Number:	062403/00002

Filed as Small Entity

U.S. National Stage under 35 USC 371 Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Oath/decl > 30 mo. from priority date	2617	1	65	65
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
		Total in USD ($)		**65**

Electronic Acknowledgement Receipt	
EFS ID:	7397536
Application Number:	12294641
International Application Number:	
Confirmation Number:	1871
Title of Invention:	METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECIAL AREA
First Named Inventor/Applicant Name:	Carlos Alberto PÃ‰REZ LAFUENTE
Customer Number:	31013
Filer:	Aaron Haleva/Jenny Lynn Stewart
Filer Authorized By:	Aaron Haleva
Attorney Docket Number:	062403/00002
Receipt Date:	12-APR-2010
Filing Date:	
Time Stamp:	16:38:01
Application Type:	U.S. National Stage under 35 USC 371

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$65
RAM confirmation Number	3282
Deposit Account	500540
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Applicant Response to Pre-Exam Formalities Notice	2-RES.pdf	62266 8128f943e1dd4efa8a991ef0d3617694ff30e158	no	2
Warnings:					
Information:					
2	Miscellaneous Incoming Letter	2-FORLTR.pdf	55189 84f2b01d77702a548589244acf33d1bd4820c4dd	no	2
Warnings:					
Information:					
3	Oath or Declaration filed	2-DEC.pdf	82706 9913793be5a683036133ac3b600a3f3221ed9794	no	2
Warnings:					
Information:					
4	Fee Worksheet (PTO-875)	fee-info.pdf	30653 fbc28e8916266b5affd3da819193f385dcba496e	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	230814		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

<u>New Applications Under 35 U.S.C. 111</u>
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

<u>National Stage of an International Application under 35 U.S.C. 371</u>
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

<u>New International Application Filed with the USPTO as a Receiving Office</u>
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PATENT APPLICATION FEE DETERMINATION RECORD

Effective October 2, 2008

Application or Docket Number: 12294641

CLAIMS AS FILED - PART I

	(Column 1)	(Column 2)	SMALL ENTITY RATE	SMALL ENTITY FEE	OR	LARGE ENTITY RATE	LARGE ENTITY FEE
U.S. NATIONAL STAGE FEES							
BASIC FEE			BASIC FEE		OR	BASIC FEE	$330
EXAMINATION FEE			EXAM. FEE			EXAM. FEE	$220
SEARCH FEE			SEARCH FEE			SEARCH FEE	$430
FEE FOR EXTRA SPEC. PGS.	minus 100 =	/ 50 =	X $ 135 =			X $ 270 =	
TOTAL CHARGEABLE CLAIMS	17 minus 20 =		X $ 26 =		OR	X $ 52 =	
INDEPENDENT CLAIMS	2 minus 3 =		X $ 110 =		OR	X $ 220 =	
MULTIPLE DEPENDENT CLAIM PRESENT			+ $ 195 =		OR	+ $ 390 =	
* If the difference in column 1 is less than zero, enter "0" in column 2			TOTAL		OR	TOTAL	$980

CLAIMS AS AMENDED - PART II

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA
AMENDMENT A	Total		Minus	**	
	Independent		Minus	***	
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM				☐

SMALL ENTITY RATE	SMALL ENTITY ADDITIONAL FEE	OR	OTHER THAN SMALL ENTITY RATE	OTHER THAN SMALL ENTITY ADDITIONAL FEE
X $ 26 =		OR	X $ 52 =	
X $ 110 =		OR	X $ 220 =	
+ $ 195 =		OR	+ $ 390 =	
TOTAL ADDIT. FEE		OR	TOTAL ADDIT. FEE	

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA
AMENDMENT B	Total		Minus	**	
	Independent		Minus	***	
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM				☐

SMALL ENTITY RATE	SMALL ENTITY ADDITIONAL FEE	OR	OTHER THAN SMALL ENTITY RATE	OTHER THAN SMALL ENTITY ADDITIONAL FEE
X $ 26 =		OR	X $ 52 =	
X $ 110 =		OR	X $ 220 =	
+ $ 195 =		OR	+ $ 390 =	
TOTAL ADDIT. FEE		OR	TOTAL ADDIT. FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than '20', enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than '3', enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

Best Available Copy

MULTIPLE DEPENDENT CLAIM FEE CALCULATION SHEET
(FOR USE WITH FORM PTO-875)

SERIAL NO. 12294641 | FILING DATE

APPLICANT(S)

CLAIMS

	AS FILED IND.	AS FILED DEP.	AFTER 1ST AMENDMENT IND.	AFTER 1ST AMENDMENT DEP.	AFTER 2ND AMENDMENT IND.	AFTER 2ND AMENDMENT DEP.
1	1		1			
2		1				
3		2				
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11	1		1			
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TOTAL IND.	0		3		0	
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TOTAL CLAIMS	0		10		0	

	AS FILED IND.	AS FILED DEP.	AFTER 1ST AMENDMENT IND.	AFTER 1ST AMENDMENT DEP.	AFTER 2ND AMENDMENT IND.	AFTER 2ND AMENDMENT DEP.
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TOTAL IND	0		0		0	
TOTAL DEP	0		0		0	
TOTAL CLAIMS	0		0		0	

PTO - 1360 (REV. 04/2009)

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UNITED STATES PATENT AND TRADEMARK OFFICE

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United States Patent and Trademark Office
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Alexandria, Virginia 22313-1450
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U.S. APPLICATION NUMBER NO.	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
12/294,641	Carlos Alberto PÃ#REZ LAFUENTE	062403/00002

31013
KRAMER LEVIN NAFTALIS & FRANKEL LLP
INTELLECTUAL PROPERTY DEPARTMENT
1177 AVENUE OF THE AMERICAS
NEW YORK, NY 10036

INTERNATIONAL APPLICATION NO.	
PCT/EP2007/052939	
I.A. FILING DATE	PRIORITY DATE
03/27/2007	03/28/2006

CONFIRMATION NO. 1871
371 FORMALITIES LETTER

OC000000040062539

Date Mailed: 02/16/2010

NOTIFICATION OF MISSING REQUIREMENTS UNDER 35 U.S.C. 371 IN THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US)

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SUMMARY OF FEES DUE:

Total additional fees required for this application is $**65** for a Small Entity:

- $**65** Surcharge.

ALL OF THE ITEMS SET FORTH ABOVE MUST BE SUBMITTED WITHIN TWO (2) MONTHS FROM THE DATE OF THIS NOTICE OR BY 32 MONTHS FROM THE PRIORITY DATE FOR THE APPLICATION, WHICHEVER IS LATER. FAILURE TO PROPERLY RESPOND WILL RESULT IN ABANDONMENT.

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If you are not using EFS-Web to submit your reply, you must include a copy of this notice.

SHELBY J MILLER

Telephone: (571) 272-0384

FORM PCT/DO/EO/905 (371 Formalities Notice)

Document made available under the Patent Cooperation Treaty (PCT)

International application number: PCT/EP2007/052939

International filing date: 27 March 2007 (27.03.2007)

Document type: Certified copy of priority document

Document details: Country/Office: EP
Number: 06111804.8
Filing date: 28 March 2006 (28.03.2006)

Date of receipt at the International Bureau: 23 April 2007 (23.04.2007)

Remark: Priority document submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b)



World Intellectual Property Organization (WIPO) - Geneva, Switzerland
Organisation Mondiale de la Propriété Intellectuelle (OMPI) - Genève, Suisse

Europäisches Patentamt GD1	European Patent Office DG1	Office européen des brevets DG1

Bescheinigung	Certificate	Attestation
Die angehefteten Unterlagen stimmen mit der ursprünglich eingereichten Fassung der auf dem nächsten Blatt bezeichneten europäischen Patentanmeldung überein.	The attached documents are exact copies of the European patent application described on the following page, as originally filed.	Les documents fixés à cette attestation sont conformes à la version initialement déposée de la demande de brevet européen spécifiée à la page suivante.

Patentanmeldung Nr.	Patent application No.	Demande de brevet n°
	06111804.8 / EP06111804	

The organization code and number of your priority application, to be used for filing abroad under the Paris Convention, is EP06111804

Der Präsident des Europäischen Patentamts;
Im Auftrag

For the President of the European Patent Office

Le President de l'Office européen des brevets
p.o.

R.C. van Dijk

EPA/EPO/OEB Form 1014 02.00

Europäisches Patentamt
GD1

European Patent Office
DG1

Office européen des brevets
DG1

Anmeldung Nr:
Application no.: 06111804.8
Demande no:

Anmeldetag:
Date of filing: 28.03.06
Date de dépôt:

Anmelder/Applicant(s)/Demandeur(s):

Lafuente, Carlos Alberto Pérez
C. Julio Palacios 4 esc.B6° 3a
28029 Madrid/ES

Bezeichnung der Erfindung/Title of the invention/Titre de l'invention:
(Falls die Bezeichnung der Erfindung nicht angegeben ist, siehe Beschreibung.
If no title is shown please refer to the description.
Si aucun titre n'est indiqué se referer à la description.)

Method and system for monitoring a mobile station presence in a special area

In anspruch genommene Priorität(en) / Priority(ies) claimed / Priorité(s) revendiquée(s)
Staat/Tag/Aktenzeichen / State/Date/File no. / Pays/Date/Numéro de dépôt:

Internationale Patentklassifikation / International Patent Classification / Classification internationale de brevets:

H04B7/26

Am Anmeldetag benannte Vertragstaaten / Contracting states designated at date of filing / Etats contractants désignées lors du dépôt:

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Method and system for monitoring a mobile station presence in a special area.

This invention relates to a method for monitoring a mobile station presence in a special area. This invention relates also to a mobile system, a server, a radio transmitting device, and a mobile station suitable for carrying out such a method.

BACKGROUND ART

Development of short range wireless communication solutions based on the use of Bluetooth, DECT and WIFI within a small area such as homes is strong competition for mobile operators owning wide mobile networks. A mobile telephone network (called also mobile network) includes a large number of base stations and all the data processing means required to provide the telecommunication service to each mobile station serviced by said mobile network.

These short range wireless communication solutions can provide direct connection to fixed networks whose operators offer cheaper rates than those offered by mobile networks. It can therefore be of interest for mobile network operators to offer different rates depending on the instantaneous location of a mobile station connected to its mobile network, in particular in areas, called special areas, where it could face strong competition from some short range wireless communication solutions.

The published patent application nºUS20020094801 describes a technical solution: a fixed station sends an encoded first signal and the coverage of said first signal defines a special area. The fixed station and a mobile station using the special area are linked one another via the signal code. But this document does not disclose anything about the content of said coded signal. In order to realize protection against the abuse of the system, in an embodiment, this document proposes to provide the fixed station with receiving and comparison means for an access code that is to be applied to the fixed station via the mobile station in order to put the fixed station into operation.

The international application WO 00/27152 offers another solution for locating a mobile station based on the use of a guide unit that broadcasts a short range radio signal which defines a home area. This document discloses that the short range radio signal contains the identity code of said mobile station that has to identify its own identity code in order to notice to a mobile switching centre that it is located in its home area. This mobile station transmits then a home message to the mobile network, this home message being possibly used notably for defining the price/service connected to telephone calls. In this last technical solution, the guide unit has to know the identity of the mobile station and this last solution is thought to be used for a home special area.

However, this last technical solution does not allow the mobile network, to add for a mobile station one or more special areas wherein the presence of a mobile station is monitored without having to at least modify one or more guide units broadcasting in such areas. It lacks therefore of flexibility.

DISCLOSURE OF THE INVENTION

An object of the invention is therefore to provide a method for monitoring the presence of a mobile station in at least one special area, said method providing the flexibility to the mobile telephone network of associating new special areas for this mobile station in a secure way without modifying any radio transmitting device.

This object is achieved in accordance with claim 1 by providing a method for monitoring the presence of a mobile station in at least one special area associated to the mobile station, the method comprising the following steps:

a. at least one radio communication defining device transmits repeatedly in at least a channel one radio distinctive defining signal that defines the special area by its coverage,

b. the mobile station observes the channel and process any signal received in order to determine whether or not it is receiving any defining signal,

c. the mobile station processes any defining signal received in order to determine whether or not the defining signal received is a distinctive defining

signal that defines the special area,

d. the mobile station sends an updating signal to a mobile telephone network about its presence in the special area,

e. the mobile telephone network routes the updating signal to special operating means that adapt the value of at least one operating parameter depending on the presence of the mobile station in the special area,

the said method is characterized in that the special area is associated to the mobile station by transmitting to the mobile station a checking data, this checking data being used by the mobile station for determining whether or not the defining signal received is a distinctive defining signal that defines, alone or with other distinctive defining signals, the special area associated to the mobile station and the same checking data being sent to any mobile station whose presence in this special area is monitored.

Advantageously from the operator's point of view, the invention brings the flexibility needed to activate a special way of operating a mobile station in a special area by transmitting a checking data that will be stored in a mobile station database without having to modify, by way of introducing any new data (notably the identity code of said mobile station), at least one radio communication defining device like in the aforementioned international patent application WO 00/27152. Therefore, a radio communication defining device is not required to store all the mobile stations identity codes using the special area defined by at least the coverage of its defining signal(s).

According to the present invention, a special area associated to a mobile station can be defined by one or more defining signals. Therefore the checking data may preferably contain information included in every defining signals defining completely a special area (each one defines it partially) and the mobile station try to find any of this information in any defining signal received with comparison means. The mobile station may receive defining signals that do not define any special area for it. In the case where the special area is defined by two or more defining signals, this special area may be the intersection of all or part of them or the global coverage of the defining signals.

In addition, a method according to the invention is specially suitable to be used in environments like for example airports, company's premises or business centres where the number of different mobile stations to be serviced by the mobile telephone network would be high. With the solution of the aforementioned international patent application WO 00/27152, it would be necessary to store and transmit in and from a single radio communication defining device all the mobile station identity codes of the potential mobile stations using a special area defined in such environment, operation which would difficult or even impossible considering that the radio spectrum is a limited resource. Therefore, the application WO 00/27152 has a narrower geographical scope of usability. It is also not required, thanks to the invention, to send any activation code to activate a radio communication defining device and it is not required to store all the mobile stations activation codes in the radio communication defining device, as in one embodiment of the published patent application nºUS20020094801. Therefore, it is easier with this present invention to realize protection against abuse of the system.

The special operating means may be at least partly included in the data processing means of the mobile telephone network. All of them or part of them may be own or operate by an external provider of the mobile telephone network.

In a particular embodiment, the special area is deactivated for the mobile station by the mobile telephone network sending a deactivation signal to the mobile station to stop the mobile station from recognizing a defining signal that defines that special area as a distinctive one.

In a particular embodiment, the special operating means acknowledge the reception of the updating signal and transmit an acknowledgement signal to the mobile station. In this embodiment, the mobile station knows advantageously if the mobile telephone network received the updating signal or not.

In a particular embodiment, at least one radio communication defining device is a wireless device whose radio distinctive defining signal that defines the special area

is a distinctive wireless signal transmitted by the wireless device in a frequency range outside the frequency range allocated for the mobile telephone network. Preferably, the said distinctive wireless signal contains wireless device identification data and reliable information confirming that the wireless device is effectively located into a predetermined environment. The operator of the mobile telephone network advantageously avoids fraud linked to a possible shifting of the wireless device. The checking data associated to this wireless device includes this wireless device identification data.

In another particular embodiment, at least one radio communication defining device is a base station whose radio distinctive defining signal that defines the special area is a distinctive signal comprising a special mobile telephone network identification code, the checking data associated to this base station includes this special mobile telephone network identification code.

In another particular embodiment, at least one radio communication defining device is a base station whose radio distinctive defining signal that defines the special area is a distinctive base station identity signal comprising an identification code of the base station, the checking data associated to this base station includes this base station identification code. The mobile telephone network operator controls and knows the location of all the base stations broadcasting identification codes contained into the mobile station database and therefore advantageously controls the location of the special area.

In an embodiment of this invention, the special operating means store a parameters database linking the special area to the mobile station and to a set of at least the operating parameter; and the special operating means adapt the value of at least an operational parameter of this set when they receive an updating signal signalling that the mobile station exits or enters the special area. Thanks to this embodiment of the invention, the processing of these operating parameters is centralized in the special operating means and it is not done in each base station. In case the mobile station will be switch off, the mobile network operator will decide whether or not the values of the operating parameters associated to the

presence of the mobile station into special operating areas remain unchanged or are disabled into the database containing the set of operating parameters as consequence of the switching off process.

In a particular embodiment, the operating parameter is a tariff or a service flag that enables or disables a special tariff or a service for the mobile station. Advantageously, the operator's services offer can therefore being dependent on the location of the mobile station.

In a particular embodiment, the updating signal includes a request to access to a service or to a multimedia content and the mobile telephone network routes this request to a part of the special operating means that allow or forbid the provision of this service or multimedia content depending on whether or not the mobile station is into the special area. This part of the special operating means may be operated by the mobile telephone network operator or by a different provider.

In a particular embodiment, the transmission of the checking data to the mobile station is done via the mobile telephone network or via a signal of at least one radio device or via a person introducing the checking data in the mobile station.

According to the present invention, there is further provided a mobile system for monitoring the presence of a mobile station in a special area defined for this mobile station, said system comprising :

- checking means for detecting the presence of the mobile station in the special area associated to this mobile station, said checking means including :
    - o At least one radio communication defining device transmitting repeatedly in at least a channel a radio distinctive defining signal that defines the special area,
    - o in the mobile station, observing means for observing the channel and processing means for processing any signal received in the channel in order to determine whether or not the signal received is a defining signal and, if the signal received is a defining signal, whether or not

the signal received is a distinctive defining signal that defines the special area,

- transmission means for sending an updating signal regarding the presence of the mobile station in the special area from the processing means to special operating means included at least partly in data processing means of the mobile telephone network,

- the special operating means for adapting the value of at least one operating parameter depending on the presence of the mobile station in the special area,

characterized in that the said mobile system comprises storing means for storing a checking data in the mobile station, the processing means include means for using this checking data for determining whether or not the defining signal received is a distinctive defining signal that defines, alone or with other distinctive defining signals, the special area and the same checking data is sent to any mobile station whose presence in this special area is monitored.

In a particular embodiment of the invention, the mobile system comprises special area location monitoring means for monitoring the correct location of at least a part of the special area. It is then harder to fraud by moving the radio communication defining device. In a particular embodiment of the invention, the mobile system carries out a method according to the present invention.

This invention also concerns a server. According to the invention, this server is characterized in that it contains at least some of the special operating means included in the mobile system according to the present invention. This server may contain the whole or part of the special operating means. In this last case, the special operating means may be spread in several servers or computers.

According to the present invention, there is further provided a radio communication defining device, characterized in that it carries out a method according to the present invention. In a particular embodiment, the said radio communication defining device of the invention is a wireless device and it contains means for transmitting the distinctive wireless signal that defines the special area and means

for obtaining reliable information indicating whether or not the said wireless device is located into a predetermined environment.

This invention also concerns a mobile station, characterized in that this mobile station is suitable to carry out a method according to the present invention. This mobile station may be a mobile telephone or a Personal Digital Assistant for example.

BRIEF DESCRIPTION OF THE DRAWINGS

In the following detailed description of some possible embodiments, other features and advantages of the invention will appear, each description being made with reference to the following drawings:

Figure 1 is a schematic diagram illustrating an embodiment of a mobile system according to the invention;

Figure 2 is a schematic diagram illustrating another embodiment of a mobile system according to the invention;

Figure 3 is a schematic diagram illustrating another embodiment of a mobile system according to the invention;

Figure 4 is a flow chart illustrating partly an embodiment of a method according to the invention;

Figure 5 is a flow chart illustrating another part of an embodiment of a method according to the invention;

Figure 6 is a schematic diagram of a part of an operating parameters database in an embodiment of the invention;

Figure 7 is a schematic diagram of a part of another operating parameters database in an embodiment of the invention.

DETAILED DESCRIPTION

A mobile telephone network includes a large number of base stations and all the data processing means required to provide the telecommunication service to each

mobile station serviced by the mobile telephone network. The mobile telephone network may be cellular or not.

In this description and in the claims, it is supposed, in the case that the mobile telephone network is cellular, that each base station of the cellular mobile telephone network is associated to a unique cell. Therefore, some base stations of the cellular mobile network can be located in the same location and share technical means. For example, a tower may incorporate three sets of antennas, each set being part of a different base station of the same mobile network.

Figure 1, figure 2 and figure 3 are three schematic figures describing three particular embodiments of mobile systems according to the invention.

Figure 1 is a schematic diagram illustrating an embodiment of the invention wherein :

- any base station 107 or 105 of a mobile telephone network of an operator is a radio communication defining device transmitting a radio defining signal in a channel used by the mobile telephone network,
- the distinctive radio defining signal that defines the special area is a distinctive signal transmitted by some selected base stations 105, said distinctive signal comprising a special mobile telephone network identification code. The sum of the coverage of these selected base stations 105 defines a special area (the shaded area of figure 1).
- the checking data includes this special mobile telephone network identification code.

More precisely, Figure 1 shows a geographical area 102 covered by the mobile telephone network. The radio coverage of the mobile telephone network in this geographical area 102 is the addition of the radio coverage 104 and 106 of several base stations 105 and 107. The mobile telephone network includes data-processing means that comprise a server according to the invention including special operating means according to the invention.

Each base station is transmitting network data, including a mobile telephone network identification code, which allows a mobile station 100 in the geographical area 102 to select the appropriate mobile telephone network.

The operator of the mobile telephone network defines one special mobile telephone network identification code, called IC2, (in another embodiment, the operator may create more than one special mobile telephone network identification code) different from a normal mobile telephone network identification code, called IC1. Then the operator configures its mobile telephone network in such a way that some base stations 107 (in general the majority of them) transmit a radio defining signal comprising the normal mobile telephone network identification code and the selected base stations 105 (in general a minority of them) transmit a distinctive defining signal comprising a special mobile telephone network identification code.

The checking data (i.e. IC2) is stored into an internal mobile station database included in mobile station 100 storing means, this mobile station 100 being associated to this special area. The same checking data is sent to any mobile station whose presence in this special area is monitored.

The mobile station 100 contains observing means and processing means for determining that the distinctive defining signal transmitted by any base station 105 is received. These processing means include means for using the checking data that include, in this embodiment, comparing means. Thanks to these comparing means, the mobile telephone network identification codes received by the mobile station are compared to IC2 stored into the internal mobile station database: If the mobile station is in a position like the position (a) in figure 1, i.e. inside the special area, the mobile telephone network identification code received is equal to IC2 and therefore the mobile station 100 determines that it is into the special area. Otherwise, if the mobile station 100 is in position like the position (b) in figure 1, i.e. outside the special area, the mobile station 100 receives a defining signal containing IC1 different from IC2 and determines that it is not receiving any distinctive defining signal and therefore that it is not into the special area.

For example, if the mobile station 100 is a GSM mobile station operating into a GSM mobile telephone network, the mobile station 100 has the capability to store the received mobile telephone networks identification codes into a mobile station 100 memory. In that case, the mobile station 100 may access to such internal memory to get data to determine, together with the checking data (i.e. IC2), whether or not it is receiving any distinctive defining signal.

With the exception of the processes concerning the invention, a special mobile telephone network identification code (IC2) is equivalent, from the perspective of both the mobile station and the mobile telephone network, to a normal mobile telephone network identification code (IC1). In this context, processes such as network selection, selection / reselection of base stations and handover will not be influenced because some base stations transmit IC1 and some other transmit IC2, such lack of influence meaning that all the mobile station and the mobile telephone network processes (except the processes concerning the invention) will be handle as if IC1 and IC2 would be the same code.

For example, a mobile telephone network operator can use this embodiment of the invention to offer one set of normal billing rates in an urban environment of a country, and another set of special billing rates for a rural environment. Another example of the application of this embodiment of the invention is for a mobile telephone network operator to offer normal billing rates for the whole country except in industrial areas or business districts.

Figure 2 is a schematic diagram illustrating an example of another embodiment of a mobile system according to the invention wherein the radio communication defining device is a wireless device (212 or 212b), e.g. a WIFI, Bluetooth or DECT device, the radio distinctive defining signal that defines the special area is a distinctive wireless signal 214 or 214b (e.g. a WIFI, Bluetooth or DECT signal) transmitted by the wireless device (212 or 212b) in a frequency range outside the frequency range allocated for the mobile telephone network. A mobile station 200 whose presence in the special area is monitored includes observing means and processing means for determining whether or not any defining signal is received in

the frequency range used by the wireless device.

Each distinctive wireless signal contains wireless device identification data and reliable information confirming that its transmitting wireless device (212 or 212b in figure 2) is effectively located into a predetermined environment. The checking data comprises a set of at least one wireless device identification data.

The predetermined environment may be one or more specific geographical locations (for example several fixed points into a restaurant) or a physical environment that can be mobile (for example a car, a plane or a boat). The predetermined environment is defined by the operator of the mobile telephone network.

The distinctive wireless signals are preferably coded and the mobile station processing means include decoding means to decode the wireless signals received.

The mobile system comprises special area location monitoring means for monitoring the correct location of any wireless device that may transmit a distinctive wireless signal into this predetermined environment and therefore for monitoring at least a part of the special area.

In a particular embodiment of the special area location monitoring means, the reliable information comprised into the wireless signal confirms that the wireless device is effectively located into a predetermined geographical environment defined by the operator of the mobile telephone network when:

- the wireless device able to receive a RBU signal from at least one radio broadcasting unit (RBU)
- RBU identification data is comprised into the RBU signal,
- the wireless device receives, through the RBU signal from the RBU, the RBU identification data that are included into a RBU identification database of the wireless device..

The storage of the RBU identification data into the wireless device RBU identification data database may be done at the wireless device configuration stage. In the particular example of figure 2 and the wireless device 212, the RBU is a base station 205 of the mobile telephone network, the RBU identification data is a base station identification code. The wireless device 212 is authenticated into the mobile telephone network comprising the base station 205 and may receive the base station signal 220 when it is located within the range of coverage 204 of the base station 205.

In a second example of embodiment of the special area location monitoring means, the reliable information comprised into the wireless signal confirms that the wireless device is effectively located into a predetermined geographical environment defined by the operator of the mobile telephone network when it is physically connected to any fixed network connection points defined by the operator of the mobile telephone network for the special area and it is also authenticated into the said fixed network through any of the mentioned fixed network connection points. In this embodiment, the wireless device also comprises means for communicating with the fixed network. In a particular example of this embodiment, some parameters are stored into the wireless device during its configuration stage and such parameters are used by the wireless device to perform the said authentication process into the fixed network.

These connection points may be PSTN ('Public Switching Telephony Network') connectors for ADSL network services or electrical sockets for PLC ('Power Line Communication') home network services for example. In the particular example of figure 2 and the wireless device 212b, the wireless device 212b has to be connected to a connection point 230 of a fixed network and authenticated in this fixed network so that the reliable information comprised into the wireless signal 214b confirms that the wireless device is effectively located into a predetermined geographical environment.

In a third example of an embodiment of the special area location monitoring means (not illustrated in figure 2), the reliable information comprised into the

wireless signal confirms that the wireless device is effectively located into a predetermined physical environment defined by the operator of the mobile telephone network when:

- the wireless device is physically connected to a system registered and authorised by the mobile telephone network operator for the purposes of the invention and
- the wireless device is authenticated into the mentioned system.

In a particular example of this embodiment some parameters are stored into the wireless device during its configuration stage and such parameters are used by the wireless device to perform the referred authentication process into the system. This system may be, in an example, embedded in a mobile device such as a car or a boat.

More precisely, Figure 2 shows a geographical area 202 covered by a mobile telephone network of an operator, the radio coverage of the mobile telephone network in this geographical area 202 being the addition of the radio coverage of several base stations 205 and 207. The mobile telephone network includes a server according to the invention comprising special operating means. In this embodiment, a wireless device 212 is located in a geographical environment agreed between the operator and the user, such as for example near to the user's house or near his/her work place. The wireless device 212b is located either into a geographical environment, such as for example the user's home, or into a physical environment, which may be mobile, such as for example the user's car, such environments being agreed between the operator and the user.

The checking data associated to a special area is stored into an internal mobile station database included in a memory (storing means) of a mobile station 200 associated to this special area.

Processing means comprised in the mobile station 200 compare any wireless device identification data received with the checking data stored in its internal mobile station database and determines that a wireless signal received is a

distinctive wireless signal when:

- such wireless signal is coded in a format predefined for a distinctive wireless signal and
- the wireless device identification data comprised into the wireless signal is equal to at least one of the wireless device identification data stored into the internal mobile station database and
- the reliable information comprised into the wireless signal confirms that the wireless device is effectively located into a predetermined environment.

Otherwise the mobile station 200 determines that the wireless signal received is not a distinctive wireless signal.

In the embodiment illustrated by the figure 2, the sum of the coverage (203,203b) of the wireless devices 212 and 212b transmitting distinctive wireless signals 214 and 214b defines a special area for the mobile station 200 according to the invention.

Transmission means for sending an updating signal regarding the presence of the mobile station 200 in the special area (203, 203b) from the processing means to the special operating means are partly comprised in the mobile station 200 and in the mobile telephone network. The updating signal may comprise the result of the last determination performed by the mobile station about its presence into the special area. In another embodiment, the reliable information related to whether or not the wireless device 212 or 212b is or not effectively located into its predetermined environment is also included into the updating signal.

In this embodiment, an operator of a mobile telephone network covering a geographical area 202 may offer cheaper rates, called special billing rates, to the user of a mobile station 200 if he uses his/her mobile station 200 within the range of coverage 203 of the wireless device 212 (position (a) of the mobile station 200) or within the range of coverage 203b of the wireless device 212b (position (b) of the mobile station 200).

As an example, a mobile telephone network operator can use this embodiment of the invention to offer one set of special billing rates in premises associated to the user of the mobile station 200 as may be houses, cars or boats, and another set of normal billing rates for the rest of the environments where the user may use the mobile station 200. Another example of the application of this embodiment of the invention is for a mobile telephone network operator to offer normal billing rates for the whole country except in industrial areas, airports or restaurants.

Figure 3 is a schematic diagram illustrating an example of another embodiment of a mobile system according to the invention wherein the radio communication defining device is a base station, the radio defining signal that defines the special area is a distinctive base station identity signal comprising an identification code that identifies this base station, the checking data includes a set of at least one base station identification code.

Figure 3 shows a geographical area 302 covered by a mobile telephone network of an operator, the radio coverage of the mobile telephone network in this geographical area 302 being the addition of the radio coverage 304 and 306 of several base stations 305 and 307. The mobile telephone network includes a server according to the invention comprising special operating means.

Any mobile station 300 whose presence in the special area is monitored includes observing means and processing means for observing and processing the base station identity signal of the mobile telephone network base stations 305 and 307.

The checking data is stored into an internal mobile station database included in a memory (storing means) of a mobile station 300 associated to this special area.

Processing means of the mobile station 300 process the base stations identity signals received and compare their base station identification codes to the checking data and determine that at least one distinctive base station identification code signal is received (i.e. the mobile station 300 is in position (a)) when any of the base station identification codes received is equal to at least one of the base

station identification codes stored into the internal mobile station database and otherwise determine that it is not receiving any distinctive base station identification code signal (i.e. the mobile station 300 is in position (b)).

For example, when a GSM mobile station is operating into a GSM mobile telephone network, the GSM mobile station 300 receives the identification code of the active base station and also the identification codes of some available neighbours base stations. The GSM mobile station 300 may consequently process the base station identification codes received to determine, together with the checking data, whether or not it is receiving any distinctive base station identification code signal.

The sum of the coverages 304 of the base stations 305 transmitting distinctive base station identification code signals defines a special area for the mobile station 300 according to the invention.

In this embodiment, an operator of a mobile telephone network covering a geographical area 302 may offer special services to the user of a mobile station 300 if he uses his/her mobile station 300 within the range of coverage of the base stations 305.

As an example a mobile telephone network operator can use this embodiment of the invention to offer one set of normal billing rates in an urban environment of a country, and another set of special billing rates for a rural environment. Another example of the application of this embodiment of the invention is for a mobile telephone network operator to offer normal billing rates for the whole country except in industrial areas or small towns.

Any combination of the embodiments of a mobile system according to the invention described herein is another embodiment here below of a mobile system according to the invention. That combination can be the result from 'N' different distinctive defining signals, each one comprising a different special mobile telephone network identification code or a different wireless device identification

data or a different base station identification code ,.

For example, the mobile telephone network operator can then propose 'N' different sets of rates for 'N' different kinds of special areas for a given mobile station. In an example, an operator installs in the user's house a wireless device whose position is controlled by being or not in the range of coverage of a particular base station of the mobile network, another wireless device whose position is controlled by its connection to a fix network in the user's holiday cottage and a third wireless device whose position is controlled by its connection to a system embedded in the user's car. The operator creates a special mobile telephone network identification code transmitted by the all the base stations of the user's city. Then the operator stores in the storing means of the user's mobile station the three wireless devices identification data, the user's city special mobile telephone network identification code and several sets of base stations identification codes, each set being the set of identification of base stations covering public places like airports and train stations. Then, the operator can adapt the tariffs charged and the services provided to the user depending notably whether his/her mobile station is in its city or outside, in its house, holiday cottage or car and / or in public places.

An embodiment of a method for monitoring the presence of a mobile station in at least one special area according to the invention may include at least three parts:

- a first part, illustrated in figure 4, that includes the steps needed to successfully transmit, store, erase and maintain checking data in a mobile station according to the invention,
- a second part, illustrated in figure 5, that includes the steps needed for the mobile station to monitor its location in the special areas using the checking data that were transmitted to it and
- a third part, illustrated in figure 6 and 7, that includes the adaptation of the operational parameters depending on the presence of the mobile station in any special area where this mobile station is monitoring its presence.

This embodiment of such method according to the invention may be carried out for example using any of the embodiments of mobile systems according to the

invention described before.

Figure 4 is a flowchart of the first part 400 of a method according to one embodiment of the invention for successfully transmit, store, erase and maintain checking data in a mobile station according to the invention.

A mobile telephone network comprises in this embodiment data processing means that includes special operating means; the special operating means are included in a server and therefore are advantageously centralised and not distributed between each base station of the mobile telephone network.

An operator of a mobile telephone network (i.e. the company that operates this mobile telephone network) wishes to propose special billing rates and/or special services to users of its mobile telephone network, each user carrying a mobile station, when said users are within special areas of the invention.

The part 400 of this embodiment starts in step 402 when the operator wishes to monitor the presence of a mobile station in a special area.

In step 404, the operator defines a new special area if the operator wishes to create a new one. The special areas may be agreed between the operator and the user or simply defined by the operator.

The definition of the special area can be done by the coverage of one or several radio defining signals or by the intersection of the coverage of two or more radio defining signals.

In step 406, the operator updates a parameters database included in the special operating means. The parameters database associates each special area defined with the mobile stations whose presence in such special area is monitored. For the purposes of such association, each mobile station is identified into the parameters database by means of a mobile station identifier. In the parameters database, each mobile station identifier is associated with special tariffs and/or services

which may be or not available for the mobile station depending on the presence of such mobile station into a given special area (and also depending on whether such tariffs and/or services are enabled or disabled into the parameters database for such mobile station).

The operating parameter(s) that may be adapted depending on the presence of the mobile station in one or more special areas at the same time may be notably related to activation or deactivation flags of tariffs and/or services provided to the mobile station by the mobile telephone network. Therefore, tariffs may be more or less expensive for the said mobile station in predetermined special areas and / or the mobile station may be able or unable to use predetermined services offered by the operator of the mobile telephone network in predetermined special areas.

In step 408, the special operating means send a checking data to the mobile station.

The checking data transmission can notably be done:

1) by sending the checking data stored in a server of the mobile telephone network to the mobile station through the mobile telephone network transmission channels. In a particular example, the mobile telephone network is a GSM network and the checking data from the server will be sent to the mobile station via encrypted short messages using an 'Over the Air' platform. The mobile station is able to decode the short messages and to store the checking data into an internal mobile station database,

2) through the use of a mobile station special software able to store into an internal mobile station database checking data obtained by the mobile station from at least one radio communication defining device. In a particular example, it may be necessary that an operator's representative introduces a password to allow the mobile station special software to operate. The mobile station special software may ask the operator's representative to validate the storage of the checking data through the mobile telephone keyboard,

3) or via a person (e.g. an operator's representative) who enters the checking data into the mobile station using the mobile station keyboard.

Regarding the second option, two examples are provided. In a first example, the mobile station is operating in a GSM network, the mobile station obtains from the active cell its cell identification code and from other neighbouring cells, if available, their cell identification codes. When the special software is run for example in the user's home, it is able to obtain such cells identification codes and store them in the internal mobile station database of checking data, associating them with the user's home special area.

In a second example, the mobile station can obtain, by using a WIFI device embedded into the mobile station, neighbouring WIFI devices identification data. When the special software is run for example in the user's home, it is able to obtain such WIFI device identification data and store them in the internal mobile station database of checking data, associating them with the user's home special area.

Once the checking data has been successfully stored into the internal mobile station database, a confirmation of new checking data is sent to the parameters database. In addition, notably regarding to the second and third options to transmit checking data to the mobile station, the stored checking data may be sent by the mobile station to the parameters database through the mobile telephone network for the mobile telephone network to know this checking data..

In step 410, the special operating means wait for the confirmation of new checking data from the mobile station. Once the information is received, it is stored into the parameters database and the special operating means transmit an acknowledgment to the mobile station. In case the mobile station does not receive the acknowledgment after a certain time, the mobile station sends the confirmation of new checking data again until it receives the acknowledgment or until it resents the information up to a maximum number of times.

It is advantageous to store the checking data into the mobile station, mainly in comparison to the prior art where it was necessary to store mobile station identity

codes and/or activation signals into a fix unit.

If the confirmation of new checking data is not received (possibility 412) by the special operating means, the special operating means transmit again the checking data to the mobile station (step 408).

When the confirmation of new checking data from the mobile station is received (possibility 414) by the special operating means, the special operating means know in step 416 that the mobile station updated its internal mobile station database and the internal mobile station database is in accordance with the operator wishes.

After the first special area checking data or set of checking data is stored in the internal mobile station database, the operator can add more in the same way.

In another hand, in this embodiment of a method according to the invention, the operator can deactivate a special area following the steps 430 to 440.

In step 430, the operator chooses to deactivate a special area for a mobile station, with or without the agreement of the mobile station user. In step 432, the operator deactivates into the parameters database all the special tariffs and/or services associated to the presence of the mobile station into the special area. In step 434, the special operating means transmit a deactivation signal to the mobile station (using the mobile telephone network) asking the mobile station to erase, into its internal mobile station database, the checking data associated with the special area that the operator wishes to deactivate.

In another embodiment, the deactivation signal just blocks into the mobile station the use of the special area checking data but does not erase it. The result is the same: the deactivation signal avoids the mobile station recognising the special area(s) associated with this deactivation signal.

The transmission of the deactivation signal may be done notably as in the first and

third options for transmitting the checking data (as seen in description of step 408).

Once the deactivation signal has been successfully received and processed by the mobile station, a confirmation of deactivation is sent to the parameters database. In step 436, the special operating means wait for the confirmation of deactivation from the mobile station. Once the confirmation of deactivation is received by the special operating means (possibility 440), this fact is stored into the parameters database and the special operating means transmit an acknowledgment to the mobile station. In case the mobile station does not receive the acknowledgment after a certain time, the mobile station sends the confirmation of deactivation again until it receives the acknowledgment or, in another embodiment, until it resents the confirmation of deactivation up to a maximum number of times.

If the confirmation of deactivation is not received (possibility 438) by the special operating means, the special operating means transmit again a deactivation signal to the mobile station (step 434).

When the confirmation from the mobile station regarding the successful reception and process of the deactivation signal is received (possibility 440) by the operating means, the operating means know in step 416 that the mobile station updated its internal checking data database and the internal mobile station database is in accordance with the operator wishes.

In another hand, in this embodiment of a method according to the invention, the operator can modify a special area following the steps 450 to 460 to adapt the internal mobile station database to the operator's wishes. In step 450, the operator chooses to modify a special area for a given mobile station, with or without the agreement of the mobile station user, and defines such modified special area. For example, this can be done by including in the checking data associated to one special area, some additional checking data for the special area being not only the coverage of one distinctive defining signal but the intersection (or the sum) of the coverage of the former one and the coverage of a new one. This can be done too by erasing in a set of checking data associated to one special area, some

checking data in order to, for example, transform a special area defined as the intersection (or the sum) of the coverage of two distinctive defining signals into a special area defined as the coverage of one only distinctive defining signal.

In case the operator wishes to add a new checking data (the steps for erasing one can be easily inferred by analogy), in step 452, the operator updates the parameters database in order to include, if known, the new checking data associated to the mobile station and the modified special area.

In step 454, the special operating means send, by using any of the three options for transmitting checking data described in step 408, the new checking data to the mobile station using the mobile telephone network.

Once the new checking data has been successfully stored into the part of the internal mobile station database that contains the checking data linked to the special area that has to be modified, a confirmation of modification of checking data is sent to the parameters database. In addition, typically regarding to the second and third options to transmit checking data to the mobile station described in step 408, the stored new checking data may be sent by the mobile station to the parameters database through the mobile telephone network. In step 456, the special operating means wait for the confirmation of modification of checking data from the mobile station. Once the confirmation of modification is received, this fact is stored into the parameters database and the special operating means transmit an acknowledgment to the mobile station. In case the mobile station does not receive the acknowledgment after a certain time, the mobile station sends the information again until it receives the acknowledgment or, in another embodiment, until it resents the information up to a maximum number of times.

If the confirmation of modification of checking data is not received (possibility 458) by the special operating means, the special operating means send again the new checking data to the mobile station (step 454).

When the confirmation of modification sent from the mobile station is received by

the special operating means (possibility 460), the special operating means know that in step 416, the mobile station updated its internal checking data database and the internal mobile station database is in accordance with the operator wishes.

The second part of this embodiment of a method according to the invention is illustrated in figure 5 and includes the steps needed for the mobile station to monitor its location in the special areas using the checking data that were transmitted into it.

In step 500, a mobile station is switched on. In an embodiment, the mobile telephone network sets the values of the operating parameters managed in the parameters database to a set of initial values when the mobile station is switched off (as at that time it is not present in any special area) in order to start operating the mobile station when it is just switched on. In step 510, the mobile station observes, through the appropriate channel(s), any signal received and process it to determine whether or not it is receiving any defining signal from radio communication defining devices (e.g. from the base stations of a mobile telephone network or from wireless devices).

In one embodiment, the defining signal is coded (or part of the data contained in such a defining signal). In this embodiment, the mobile station is able to decode the information as part of the processing of the defining signals received.

A radio defining signal from a radio communication defining device may be transmitted on a continuous or periodical basis. The mobile station observation as to whether or not it is receiving any defining signal can be continuous or periodical. In step 512, the mobile station decide if it receives a defining signal (possibility 516) or not (possibility 514) after observing and processing any signal received.

When one or several defining signals are received, they are processed in step 518 by the mobile station notably in order to compare, in this embodiment, the appropriate part of their content with any checking data stored in the internal

mobile station database.

When a defining signal received is from a wireless device (transmitted in a frequency range outside the frequency range allocated for the mobile telephone network), the mobile station preferably also search in step 518 whether or not the defining signal received contains reliable information confirming (or not) that the wireless device is effectively located into a predetermined environment defined by the operator of the mobile telephone network.

Then, in step 520, depending on the result of the internal process carried out in step 518, the mobile station decides whether (possibility 524) or not (possibility 522) the defining signal received is a distinctive defining signal that defines a special area for this mobile station, therefore validating or not the defining signal received as a distinctive defining signal.

If the special area is defined by the sum of the coverage of several distinctive defining signals, the mobile station has to recognize at least one of the three distinctive defining signals at one time in order to determine that it is into this special area.

In another example, the mobile station knows that it is into a special area defined as the intersection of the coverage of several distinctive defining signals when it is observing and recognizing at one time all these distinctive defining signals.

The mobile station may be prepared to display a text or an icon (e.g. 'home' or 'airport' icon) when the mobile station determines that it is included in a particular special area for this mobile station.

In step 526, the mobile station sends and updating signal to the mobile telephone network about its presence in the special area.

In a particular embodiment, the mobile station sends periodically (for example every 30 seconds) an updating signal about its presence into a special area, such

updating signal comprising the result of the last determination performed by the mobile station about its presence into the special area.

In another particular embodiment the mobile station only sends to the mobile telephone network an updating signal about its presence into a special area when it enters into or exit from such special area.

For a special area defined by the sum of the coverage of several distinctive defining signals:

If the mobile station processing of the defining signals received in a certain moment determines that at least one distinctive defining signal associated to this special area is received:

- If the previous processing of the defining signals received determined that no distinctive defining signal associated to this special area was received at that time then the mobile station interprets that it has recently entered into this special area.
- If the next processing of the defining signals received determines that at least one distinctive defining signal associated to this special area is still being received then the mobile station interprets that it remains located into this special area;

If the mobile station processing of the defining signals received in a certain moment determines that no distinctive defining signal associated to this special area is received:

- If the previous processing of the defining signals received determined that at least one distinctive defining signal associated to this special area was received at that time then the mobile station interprets that it has recently left this special area.
- If the next processing of the defining signals received determines that no distinctive defining signal associated to this special area is still being received then the mobile station interprets that it remains out of this special area.

For a special area defined by the intersection of the coverage of several distinctive defining signals a procedure equivalent to the one above can be easily inferred by analogy.

The updating signal may be sent through a diversity of channels provided by the mobile telephone network. For example, in a GSM mobile network, the updating signals can be sent using the USSD ('Unstructured Supplementary Service Data', GSM standards) channel. The data comprised into the updating signal will typically be coded by the mobile station and decoded by the special operating means of the server.

In this embodiment, the updating signals are sent from the mobile station to the special operating means of the mobile telephone network requesting an acknowledgement from the special operating means.

In step 530, the mobile station search for the acknowledgment from the special operating means.

If the acknowledgement is not received in the mobile station (possibility 532) because the updating signal does not reach the special operating means or the mobile station detects a failure in the transmission of the updating signal or there is a failure in the transmission of the acknowledgment, then the mobile station may send the updating signal again up to a predetermined number of times according to a predefined retransmissions policy.

When the acknowledgment is received (possibility 531) into the mobile station, the mobile station knows in step 534 that the special operating means will make the appropriate adaptations in the operating parameters of the special areas database.

More generally, the special operating means area waiting for any updating signal from any mobile station whose identification code is into the parameters database. When the special operating means receive an updating signal from a mobile

station, they then adapt the operational parameters of the special areas database that depend on the presence of this mobile station in a special area associated with this mobile station and send the acknowledgement.

In one embodiment, the updating signal contains a request to access to services and/or to download contents provided direct or indirectly by the mobile telephone network of the operator. Then, an access or downloading right is granted or denied by the mobile telephone network depending on the presence of the mobile station in a special area.

The acknowledgment signals of the updating signal from the special operating means are preferably coded. In that case, the mobile station processing means are able to decode the acknowledgments of the updating signals.

The operator of the mobile telephone network has therefore a guarantee that the mobile telephone network will know at least a change on the presence of the mobile station in one or more special areas even if the radio communication link between the mobile station and the mobile telephone network is temporarily unavailable.

In a particular embodiment the mobile telephone network may enable or disable to the mobile station to use predetermined services depending on the presence of the mobile station into a special area.

As an example, the mobile station may incorporate special checking software able to generate statistics about the use of the mobile telephone (phone calls, messages, etc.) into special areas. This software may be enabled for operation by the mobile telephone network when the mobile station enters into a predetermined special area and disabled when the mobile station exits such special area.

As another example, the mobile telephone network may broadcast certain messages associated to a special area (e.g. airport information). The mobile station can be enabled by the mobile telephone network to accept and display

those broadcasted messages when it is located within this special area and disabled when it exits the special area.

The third part of this embodiment of a method according to the invention is illustrated in figures 6 and 7 and includes the adaptation of the operational parameters to the presence of the mobile station in any special area where this mobile station is monitoring its presence.

When the mobile telephone network receives an updating signal, the special operating means of the server adjust the value of at least one operating parameter of a parameters database linking the special area and the mobile station. The value of the operating parameter(s) depends on the information contained into the updating signal about the presence of the mobile station into the special area.

In a particular example, operating parameters related to a special tariff and some services are enabled or remains enabled into the referred parameters database when the information contained into the updating signal indicates that the mobile station has recently entered or remains located into the special area. In the same example, the special tariff and the services are disabled or remains disabled into the referred parameters database when the information contained into the updating signal indicates that the mobile station recently left or remains out of the special area.

More precisely, Figure 6 is a schematic illustration of an example of a part of the parameters database 600 of operating parameters included in the special operating means according to an embodiment of the invention. The illustrated part of the special operating means database 600 links two special areas SA1 606 and SA2 608 with 3 mobile stations identification codes MS(i-1), MS(i) and MS(I+1), each of which having an entry 603, 604 and 605.

The column 602 of the database comprises the mobile stations identification codes. A mobile station identification code refers to a code that is associated with the subscription of the mobile station user into the mobile telephone network. As

an example, in a GSM network the referred mobile station identification code may be the MSISDN.

In this example, the set of checking data of mobile station MS(i) for the special area SA1 606, defined in the column 610/606 of the entry 604 contains :

- a checking data 650 comprised into the distinctive defining signal of a first base station BS1 (e.g. the identification code of BS1), such distinctive defining signal defines the special area SA1 606,
- a checking data 652 comprised into the distinctive defining signal of a second base station BS2 (e.g. the identification code of BS1), such distinctive defining signal also defines the special area SA1 606, and
- a checking data 654 comprised into the distinctive defining signal of a wireless device WD1 (e.g. the identification data of WD1), such distinctive defining signal also defines the special area SA1 606,

for the special area SA1. The mobile station determines that it is located into the special area SA1 606 when it receives at least one of the three identifiers 650, 652, 654 comprised into the distinctive defining signals coming from BS1, BS2 and WD1, i.e. when it is located within the range of coverage of any of the three distinctive defining signals (according to one of the embodiments of the invention, in the case of the defining signal of WD1, in order to consider that such defining signal is a distinctive defining signal, it will additionally be necessary that the reliable information comprised into the defining signal confirms that WD1 is effectively located into a predetermined environment).

In this example, the value of column 611/606 for the mobile station MS(i) and for the special area 606 is enabled ('+') or disabled ('-') at a given time depending on whether or not the mobile telephone network receives a confirmation of new checking data (see description of figure 4) from this mobile station confirming that all the checking data corresponding with the special area has been stored into this mobile station (based on the same principle, it would also be possible to add another column in the parameters database to monitor the reception of confirmations of deactivation of checking data and another one to monitor the reception of confirmations of modification of checking data for a given special area

: see description of figure 4).

In this example, the value of column 611/606 for MS(i) is enabled (+) for the special area SA1 606. In another example, the value of column 611/606 for the mobile station MS (i) and for the special area 606 contains a set of values enabled ('+') or disabled ('-'), one for each checking data.

The column 612/606 corresponding to the operating parameter "Mobile Station Control Flag" is enabled ('+') or disabled ('-') at a given time for the mobile station MS (i) and for the special area SA1 606 depending on the information comprised into the updating signals received about the presence of the mobile station into the special area 606. In this example, at a given time, the mobile station MS(i) is supposed to be in SA1 606 as the operating parameter "Mobile Station Control Flag" 612/606 is enabled ('+').

When the "Mobile Station Control Flag" is enabled (+) at a given time for the mobile station MS(i) and for the special area 606, certain tariffs or services related to such special area may be available for the user of the mobile station depending on the value (+) or (-) of the corresponding tariff or service flags for such mobile station and special area into the operating parameters database. In this example, at a given time, in the column 'Tariff identifier' 614/606, the parameter is then set at 'XXX' and in the column 616/606, the 'Tariff Flag' is enabled (+). In the column 618/606, the 'Service identifier' parameter is then set at 'YYY' and in the column 620/606, the 'Service Flag' of said service 'YYY' is enabled ('+'). In the column 622/606, the 'Service identifier' parameter is set at 'ZZZ' and in the column 624/606, the 'Service Flag' of said service 'ZZZ' is disabled ('-') because service ZZZ is disabled at that time for the mobile station MS(i) and the special area SA1 606.

The set of columns 610/608 to 624/608 provides the same kind of information for the special area SA2 608. The set of checking data of mobile station MS(i) (column 610/608) refers to wireless devices WD1 with the checking data 656, WD2 with the checking data 658 and WD3 with the checking data 660 for the

special area SA2 608. In this special area, at that time, the value of column 611/608 for MS(i) is disabled (-), the operating parameter "Mobile Station Control Flag" (column 612/608) is disabled ('-'). Tariff 'PPP' (column 614/608) is enabled ('+' in column 616/608), service 'QQQ' (column 618/608) is enabled ('+' in column 620/608) and service 'RRR' (column 622/608) is enabled ('+' in column 624/608). The tariff PPP and the services QQQ and RRR are associated to mobile station MS(i) when it is in the special area SA2 608.

In another embodiment of the invention, the special operating means are distributed into different servers of the mobile telephone network or of service providers associated with the mobile telephone network and an updating signal may be sent to any of those servers.

In a particular example of this embodiment, there will be a server containing a part of the special operating means that stores a parameters database (e.g. the database illustrated in figure 6) of operating parameters containing the special areas checking data. In this example part of the updating signals from the mobile stations may be sent to this server of the mobile telephone network and processed by the part of the special operating means that this server contains.

In this example there will be at least another server, called switch server, into the mobile telephone network or associated to it, server that is including another part of the special operating means that include another parameters database of operating parameters, called switch parameters database, that does not contain checking data. The part of special operating means included in this other server allows or forbids the provision of some multimedia contents and applications available to mobile stations (and may preferably provide them itself) depending on the presence, in any special area registered in this switch parameters database, of any mobile station associated with this special area in this switch parameters database.

Figure 7 illustrates an example of a part of a switch parameters database 700 where 702, 703, 704, 705, 706, 708, 712/706 and 712/708 have the same

meaning than respectively 602, 603, 604, 605, 606, 608, 612/606 and 612/608 of Figure 6. The contents and applications 'AAA' are available to the mobile station MS(i) when it is into the special area SA1 706. The contents and applications 'BBB' are available to the mobile station MS(i) when it is into the special area SA2 708.

In the example of figure 7, the part of the special operating means included into the switch server receives, embedded into an updating signal from MS(i), a request to download a content or an application 'AAA', and the downloading right is granted because such updating signal from MS(i) also indicates (value '+' in column 712/706) that it is located in the special area 706 at that time.

In the same manner, in the example of figure 7, the part of the special operating means included into the switch server receives, embedded into an updating signal from MS(i), a request to download a content or an application 'BBB', but the downloading right is not granted because such updating signal from MS(i) also indicates (value '–' in column 712/708) that it is not located in the special area 708 at that time.

In some cases the switch server is entirely property of the mobile telephone network operator while in some others there is an agreement in place with a third party.

Although the present invention has been described in detail for purpose of illustration, it is understood that such detail is solely for that purpose, and variations can be made therein by those skilled in the art without departing from the scope of the invention. Thus, while the preferred embodiments of the method and of the mobile system have been described in reference to the environment in which they were developed, they are merely illustrative of the principles of the invention. Other embodiments and configurations may be devised without departing from the scope of the appended claims.

Further, although the embodiments of the invention described with reference to the

drawings comprise computer apparatus and processes performed in computer apparatus, the invention also extends to computer programs, particularly computer programs on or in a carrier, adapted for putting the invention into practice. The program may be in the form of source code, object code, a code intermediate source and object code such as in partially compiled form, or in any other form suitable for use in the implementation of the processes according to the invention. The carrier may be any entity or device capable of carrying the program. For example, the carrier may comprise a storage medium, such as a ROM, for example a CD ROM or a semiconductor ROM, or a magnetic recording medium, for example a floppy disc or hard disk. Further, the carrier may be a transmissible carrier such as an electrical or optical signal which may be conveyed via electrical or optical cable or by radio or other means. When the program is embodied in a signal which may be conveyed directly by a cable or other device or means, the carrier may be constituted by such cable or other device or means. Alternatively, the carrier may be an integrated circuit in which the program is embedded, the integrated circuit being adapted for performing, or for use in the performance of, the relevant processes.

CLAIMS

1. A method for monitoring the presence of a mobile station (100,200,300) in at least one special area (104,203,203b,304) associated to the mobile station, the method comprising the following steps :

(a) at least one radio communication defining device (105, 212, 212b, 305) transmits repeatedly in at least a channel one radio distinctive defining signal (214, 214b) that defines the special area by its coverage,

(b) (512) the mobile station observes the channel and process any signal received in order to determine whether or not it is receiving any defining signal,

(c) the mobile station processes any defining signal received in order to determine whether or not the defining signal received is a distinctive defining signal that defines the special area,

(d) (526) the mobile station sends an updating signal to a mobile telephone network about its presence in the special area,

(e) the mobile telephone network routes the updating signal to special operating means (600,700) that adapt the value of at least one operating parameter (612/606,612/608,712/706,712/708) depending on the presence of the mobile station in the special area,

the said method is characterized in that the special area is associated to the mobile station by transmitting to the mobile station a checking data (408,454), this checking data being used (518) by the mobile station for determining whether (524) or not (522) the defining signal received is a distinctive defining signal that defines, alone or with other distinctive defining signals, the special area associated to the mobile station and the same checking data being sent to any mobile station whose presence in this special area is monitored.

2. A method according to claim 1, characterized in that the special area (104,203,203b,304) is deactivated (440) for the mobile station by the mobile telephone network sending a deactivation signal to the mobile station (100,200,300) to stop the mobile station from recognizing a defining signal that defines that special area as a distinctive one.

3. A method according to claim 1 or 2, characterized in that the special operating means acknowledge (531) the reception of the updating signal and transmit an acknowledgement signal to the mobile station.

4. A method according to claim 1, 2 or 3, characterized in that at least one radio communication defining device is a wireless device (212,212b) whose radio distinctive defining signal that defines the special area is a distinctive wireless signal (214,214b) transmitted by the wireless device in a frequency range outside the frequency range allocated for the mobile telephone network, the said distinctive wireless signal contains wireless device identification data and reliable information confirming that the wireless device is effectively located into a predetermined environment (204,230), the checking data associated to this wireless device (212,212b) includes this wireless device identification data.

5. A method according to any of claims 1 to 4, characterized in that at least one radio communication defining device is a base station (105) whose radio distinctive defining signal that defines the special area (104) is a distinctive signal comprising a special mobile telephone network identification code, the checking data associated to this base station (105) includes this special mobile telephone network identification code.

6. A method according to any of claims 1 to 5, characterized in that at least one radio communication defining device is a base station (305) whose radio distinctive defining signal that defines the special area (304) is a distinctive base station identity signal comprising an identification code of the base station, the checking data associated to this base station includes this base station identification code.

7. A method according to any preceding claim, characterized in that the special operating means store a parameters database (600,700) linking the special area (104,203,203b,304) to the mobile station (100,200,300) and to a set of at least the operating parameter (612/606,612/608,712/706,712/708); and the special operating means adapt the value of at least an operational parameter of this set

when they receive an updating signal signalling that the mobile station exits or enters the special area.

8. A method according to any preceding claim, characterized in that the operating parameter is a tariff (616/606, 616/608) flag or a service flag (620/606,624/606,620/608,624/608) that enables or disables a special tariff ('XXX','PPP') or a service ('YYY','ZZZ','QQQ','RRR') for the mobile station (100,200,300).

9. A method according to any preceding claim, characterized in that the updating signal includes a request to access to a service ('AAA','BBB') or to a multimedia content ('AAA','BBB') and the mobile telephone network routes this request to a part of the special operating means (700) that allow or forbid the provision of this service or multimedia content depending on whether or not the mobile station (100,200,300) is into the special area (104,203,203b,304).

10. A method according to any preceding claim, characterized in that the transmission of the checking data to the mobile station (100,200,300) is done via the mobile telephone network or via a signal of a at least one radio device or via a person introducing the checking data in the mobile station.

11. A mobile system for monitoring the presence of a mobile station (100,200,300) in a special area (104,203,203b,304) defined for this mobile station, said system comprising:

- checking means for detecting the presence of the mobile station in the special area associated to this mobile station, said checking means including :
  - At least one radio communication defining device (105, 212, 212b, 305) transmitting repeatedly in at least a channel a radio distinctive defining signal (214, 214b) that defines the special area,
  - in the mobile station, observing means for observing the channel and processing means for processing any signal received in the channel in order to determine whether or not the signal received is a defining signal and, if the signal received is a defining signal, whether or not the signal

received is a distinctive defining signal that defines the special area,

- transmission means for sending an updating signal regarding the presence of the mobile station in the special area from the processing means to special operating means included at least partly in data processing means of the mobile telephone network,

- the special operating means for adapting the value of at least one operating parameter (612/606,612/608,712/706,712/708) depending on the presence of the mobile station in the special area,

characterized in that the said mobile system comprises storing means for storing a checking data in the mobile station, the processing means include means for using this checking data for determining whether or not the defining signal received is a distinctive defining signal that defines, alone or with other distinctive defining signals, the special area and the same checking data is sent to any mobile station whose presence in this special area is monitored.

12. A mobile system according to claim 11, characterized in that the mobile system comprises special area location monitoring means (205,212) for monitoring the correct location of at least a part of the special area (212).

13. A mobile system according to claim 11 or 12, characterized in that the mobile system carries out a method according to any one of claims 1 to 10.

14. A server, characterized in that it contains at least some of the special operating means included in the mobile system according to any one of claims 11 to 13.

15. A radio communication defining device (105,212,212b,305), characterized in that it carries out a method according to any one of the claims 1 to 10.

16. A radio communication defining device according to claim 15, characterized in that the said radio communication defining device is a wireless device (212,212b) and it contains means for transmitting a distinctive wireless signal (214,214b) that defines the special area (203,203b) and means for obtaining reliable information

indicating whether or not the said wireless device is located into a predetermined environment (204,230).

17. A mobile station, characterized in that this mobile station is suitable to carry out a method according to any one of the claims 1 to 10.

Method and system for monitoring a mobile station presence in a special area.

Method for monitoring the presence of a mobile station (200) in at least one special area (203,203b), wherein a radio communication defining device (212,212b) transmits one radio distinctive defining signal (214,214b) that defines the special area by its coverage, the mobile station processes a signal received in order to determine whether or not it is a defining signal and more precisely a distinctive one that defines the special area, the mobile station sends an updating signal to a mobile telephone network, the network routes the updating signal to special operating means that adapt the value of an operating parameter.

According to the invention, the special area is associated to the mobile station by transmitting to the mobile station a checking data used by the mobile station for determining whether or not the defining signal received is a distinctive defining signal.

Figure 2

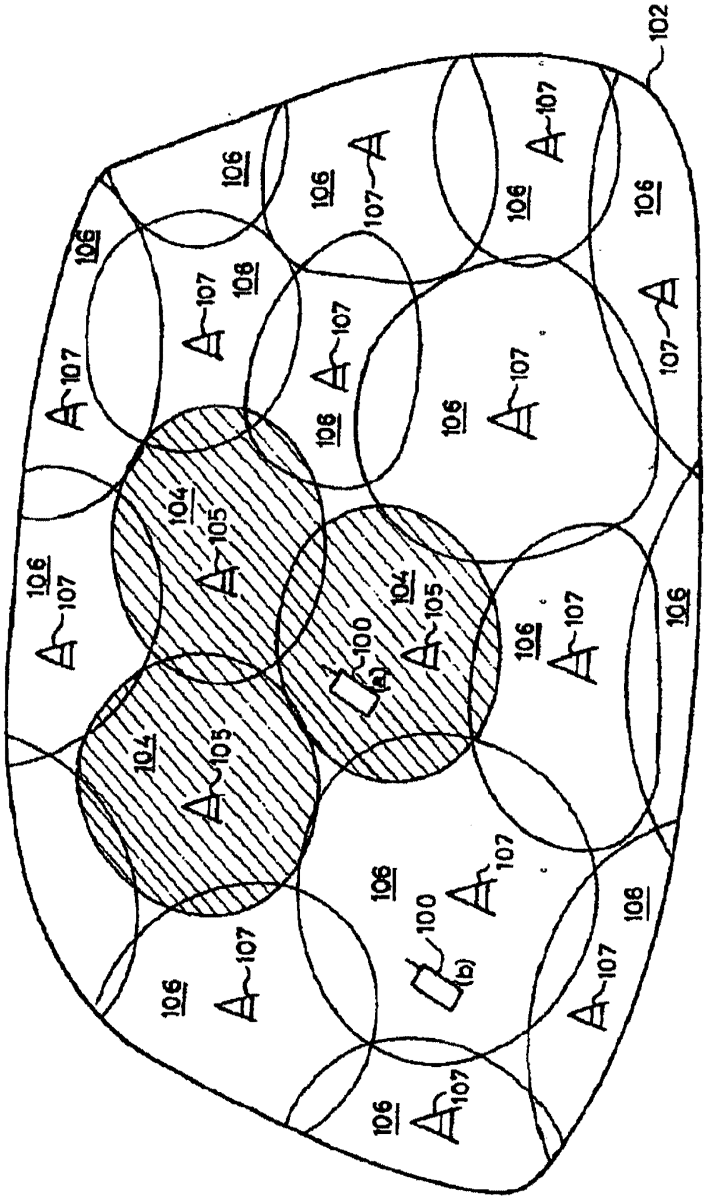


FIG_1

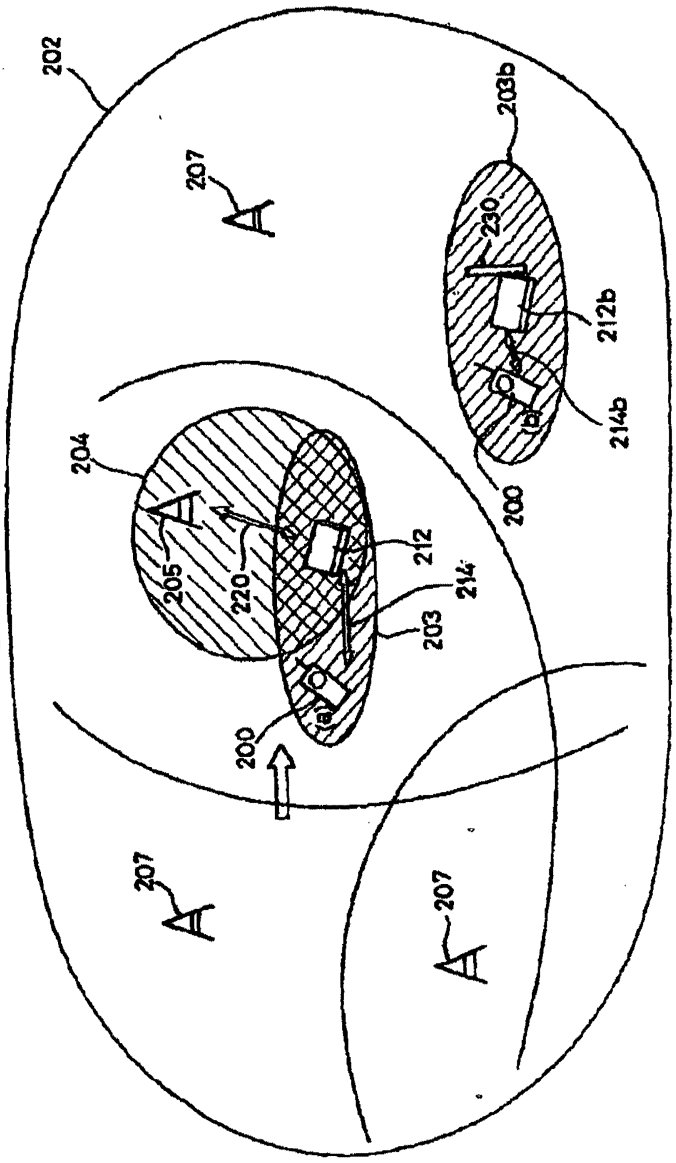

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FIG_2

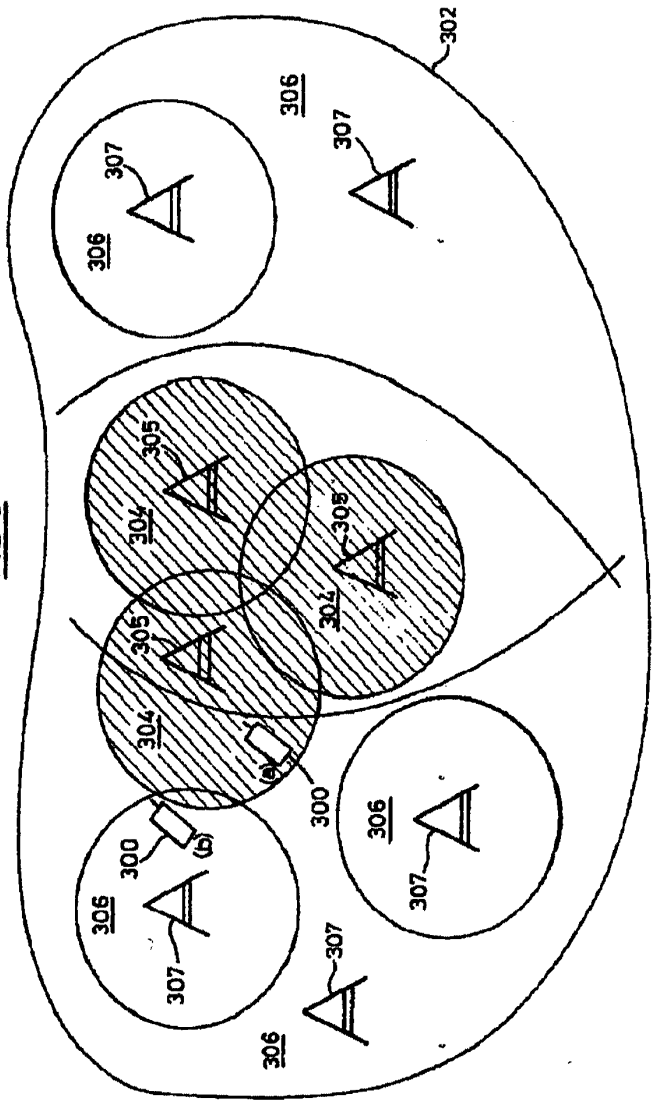


FIG_3

FIG_4

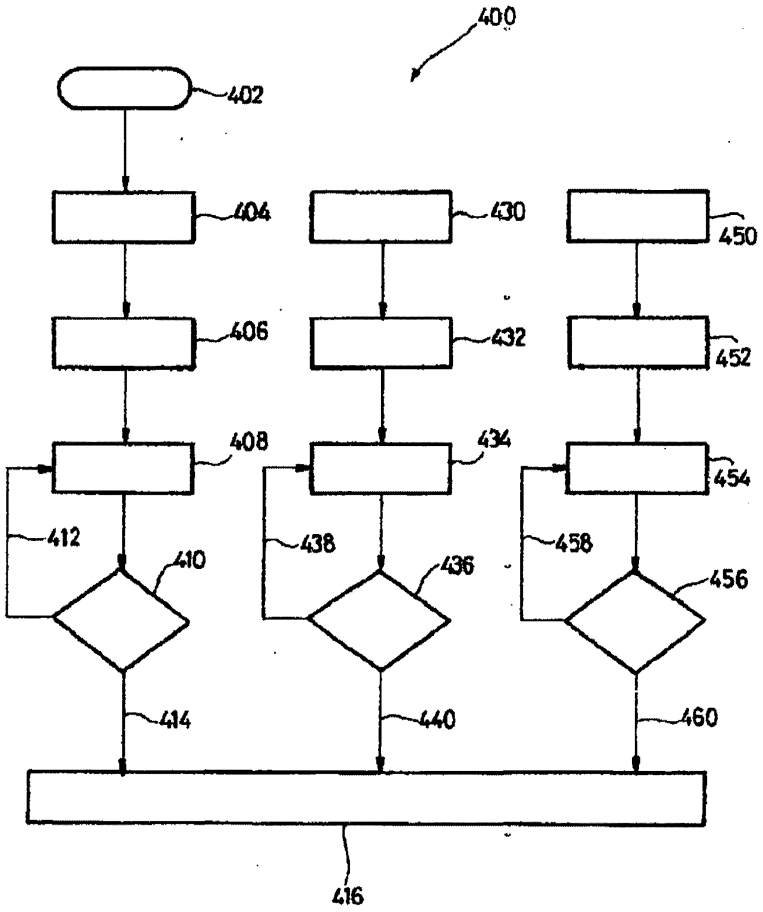

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FIG_5

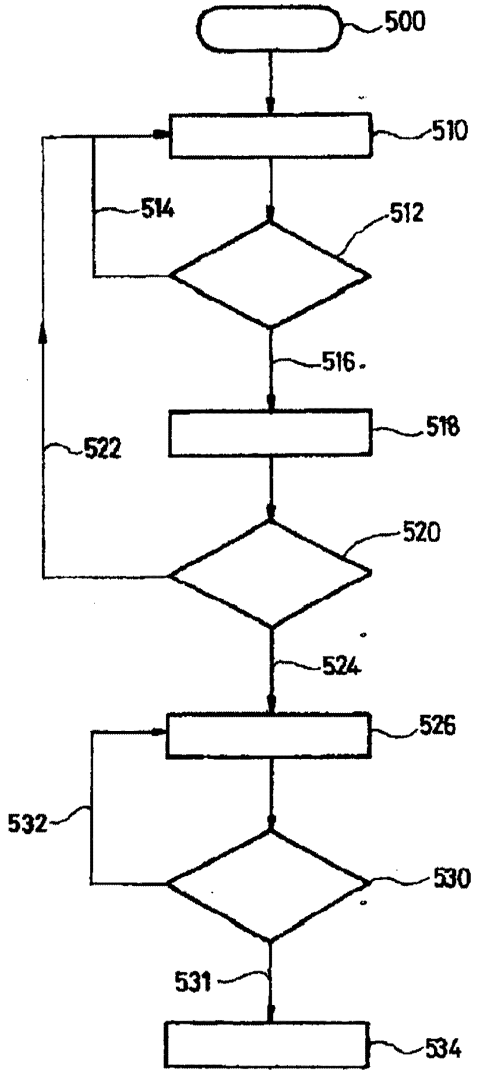


FIG_6

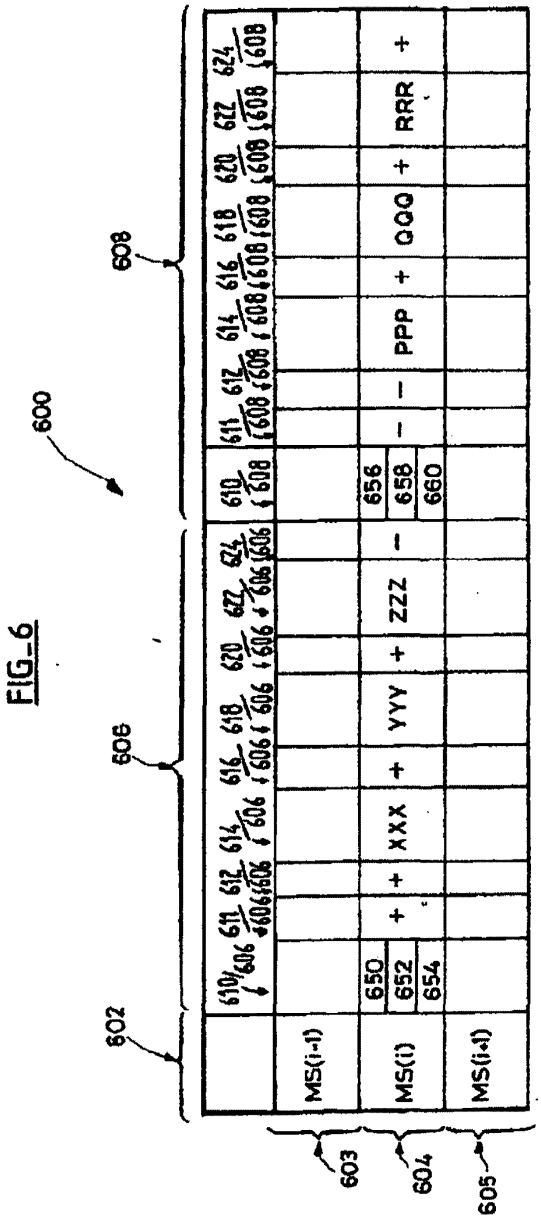
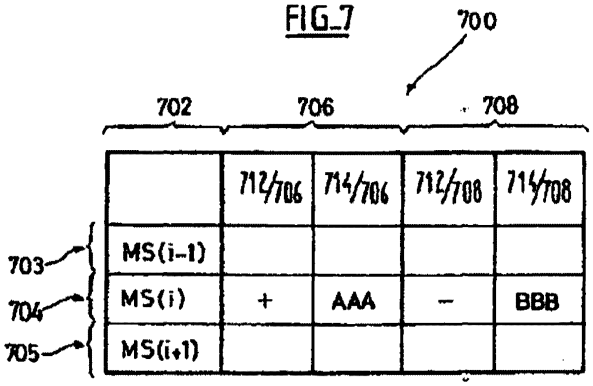

600
602
606
608
603
604
605
MS(i-1)
MS(i)
MS(i+1)
650
652
654
656
658
660
XXX
YYY
ZZZ
PPP
QQQ
RRR

FIG_7


700
702
706
708
712/706
714/706
712/708
714/708
703
MS(i-1)
704
MS(i)
+
AAA
–
BBB
705
MS(i+1)

PCT REQUEST

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0	**For receiving Office use only**	
0-1	International Application No.	**PCT/EP2007/052939**
0-2	International Filing Date	**27 MAR 2007 (27.03.2007)**
0-3	Name of receiving Office and "PCT International Application"	**RO/EP**

0-4	**Form PCT/RO/101 PCT Request**	
0-4-1	Prepared Using	PCT Online Filing Version 3.5.000.186 MT/FOP 20020701/0.20.5.5
0-5	**Petition** The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty	
0-6	**Receiving Office (specified by the applicant)**	European Patent Office (EPO) (RO/EP)
0-7	**Applicant's or agent's file reference**	P646PC00
I	**Title of Invention**	Method and system for monitoring a mobile station presence in a special area.
II	**Applicant**	
II-1	This person is	applicant and inventor
II-2	Applicant for	all designated States
II-4	Name (LAST, First)	PÉREZ LAFUENTE, Carlos Alberto
II-5	Address	28029 Madrid Spain
II-6	State of nationality	ES
II-7	State of residence	ES

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IV-1	**Agent or common representative; or address for correspondence**	
	The person identified below is hereby/ has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:	agent
IV-1-1	Name (LAST, First)	BARLOCCI PENNATI, Anna
IV-1-2	Address	Zea, Barlocci & Markvardsen, S. L. 08008 Barcelona Spain
IV-1-3	Telephone No.	+34 93 342 64 72
IV-1-4	Facsimile No.	+34 93 342 79 70
IV-1-5	e-mail	barlocci@zbm-patents.com
IV-1-6	Agent's registration No.	092960.4
V	**DESIGNATIONS**	
V-1	**The filing of this request constitutes under Rule 4.9(a), the designation of all Contracting States bound by the PCT on the international filing date, for the grant of every kind of protection available and, where applicable, for the grant of both regional and national patents.**	
VI-1	**Priority claim of earlier regional application**	
VI-1-1	Filing date	28 March 2006 (28.03.2006)
VI-1-2	Number	06111804.8
VI-1-3	Regional Office	EP
VI-2	**Priority document request**	
	The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) identified above as item(s):	VI-1
VII-1	**International Searching Authority Chosen**	European Patent Office (EPO) (ISA/EP)
VII-2	**Request to use results of earlier search; reference to that search**	
VII-2-1	Date	28 March 2006 (28.03.2006)
VII-2-2	Number	06111804.8
VII-2-3	Country (or regional Office)	EP

PCT REQUEST

Print Out (Original in Electronic Form)

VIII	**Declarations**	Number of declarations	
VIII-1	Declaration as to the identity of the inventor	–	
VIII-2	Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent	–	
VIII-3	Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application	–	
VIII-4	Declaration of inventorship (only for the purposes of the designation of the United States of America)	–	
VIII-5	Declaration as to non-prejudicial disclosures or exceptions to lack of novelty	–	
IX	**Check list**	number of sheets	electronic file(s) attached
IX-1	Request (including declaration sheets)	4	✓
IX-2	Description	35	✓
IX-3	Claims	5	✓
IX-4	Abstract	1	✓
IX-5	Drawings	7	✓
IX-7	TOTAL	52	
	Accompanying Items	paper document(s) attached	electronic file(s) attached
IX-8	Fee calculation sheet	–	✓
IX-17	PCT-SAFE physical media	–	–
IX-18	other	Pre-conversion archive	✓
IX-19	**Figure of the drawings which should accompany the abstract**	2	
IX-20	**Language of filing of the international application**	English	
X-1	**Signature of applicant, agent or common representative**	(PKCS7 Digital Signature)	
X-1-1	Name (LAST, First)	BARLOCCI PENNATI, Anna	
X-1-2	Name of signatory	ES, ZBM Patents, A. Barlocci 2015	
X-1-3	Capacity	(Representative)	

PCT REQUEST

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10-1	**Date of actual receipt of the purported international application**	**27 MAR 2007 (27.03.2007)**
10-2	**Drawings:**	X
10-2-1	Received	
10-2-2	Not received	
10-3	**Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application**	
10-4	**Date of timely receipt of the required corrections under PCT Article 11(2)**	
10-5	**International Searching Authority**	ISA/EP
10-6	**Transmittal of search copy delayed until search fee is paid**	X

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11-1	**Date of receipt of the record copy by the International Bureau**	

From the INTERNATIONAL BUREAU

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NOTIFICATION CONCERNING
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(PCT Administrative Instructions, Section 411)

To:

BARLOCCI PENNATI, Anna
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ESPAGNE

Date of mailing *(day/month/year)* 04 May 2007 (04.05.2007)	
Applicant's or agent's file reference P646PC00	**IMPORTANT NOTIFICATION**
International application No. PCT/EP2007/052939	International filing date *(day/month/year)* 27 March 2007 (27.03.2007)
International publication date *(day/month/year)* **Not yet published**	Priority date *(day/month/year)* 28 March 2006 (28.03.2006)
Applicant PÉREZ LAFUENTE, Carlos, Alberto	

1. By means of this Form, which replaces any previously issued notification concerning submission or transmittal of priority documents, the applicant is hereby notified of the date of receipt by the International Bureau of the priority document(s) relating to all earlier application(s) whose priority is claimed. Unless otherwise indicated by the letters "NR", in the right-hand column or by an asterisk appearing next to a date of receipt, the priority document concerned was submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b).

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Priority date	Priority application No.	Country or regional Office or PCT receiving Office	Date of receipt of priority document
28 March 2006 (28.03.2006)	06111804.8	EP	23 April 2007 (23.04.2007)

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NOTIFICATION OF THE RECORDING OF A CHANGE

(PCT Rule 92*bis*.1 and Administrative Instructions, Section 422)

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ZBM Patents, S.L.
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ESPAGNE

Date of mailing *(day/month/year)*
11 June 2007 (11.06.2007)

Applicant's or agent's file reference
P646PC00

IMPORTANT NOTIFICATION

International application No.
PCT/EP2007/052939

International filing date *(day/month/year)*
27 March 2007 (27.03.2007)

1. The following indications appeared on record concerning:

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Form PCT/IB/306 (October 2005) 1/C96MODML8

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Form Revision Date: December 8, 2006

(12) International Application Status Report

Received at International Bureau: 11 April 2007 (11.04.2007)

Information valid as of: Not available
Report generated on: 26.01.2010

(10) Publication number:
WO2007/110430

(43) Publication date:
04 October 2007 (04.10.2007)

(26) Publication language:
English (EN)

(21) Application Number:
PCT/EP2007/052939

(22) Filing Date:
27 March 2007 (27.03.2007)

(25) Filing language:
English (EN)

(31) Priority number(s):
06111804.8 (EP)

(31) Priority date(s):
28 March 2006 (28.03.2006)

(31) Priority status:
Priority document received (in compliance with PCT Rule 17.1)

(51) International Patent Classification:
H04W 24/00 (2009.01); *H04W 28/18* (2009.01); *H04W 48/08* (2009.01); *H04W 48/16* (2009.01); *H04W 64/00* (2009.01)

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(54) Title (EN): METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECIAL AREA.

(54) Title (FR): PROCÉDÉ ET SYSTÈME PERMETTANT DE SURVEILLER LA PRÉSENCE D'UNE STATION MOBILE DANS UNE ZONE SPÉCIALE

(57) Abstract:

(EN): Method for monitoring the presence of a mobile station (200) in at least one special area (203,203b), wherein a radio communication defining device (212,212b) transmits one radio distinctive defining signal (214,214b) that defines the special area by its coverage, the mobile station processes a signal received in order to determine whether or not it is a defining signal and more precisely a distinctive one that defines the special area, the mobile station sends an updating signal to a mobile telephone network, the network routes the updating signal to special operating means that adapt the value of an operating parameter. According to the invention, the special area is associated to the mobile station by transmitting to the mobile station a checking data used by the mobile station for determining whether or not the defining signal received is a distinctive defining signal.

(FR): L'invention concerne un procédé permettant de surveiller la présence d'une station mobile (200) dans au moins une zone spéciale (203, 203b), un dispositif (212, 212b) de définition d'une communication radio transmettant un signal radio distinctif de définition (214, 214b) qui définit la zone spéciale par sa couverture, la station mobile traite un signal reçu afin de déterminer s'il s'agit ou non d'un signal de définition et, plus précisément, d'un signal distinctif qui définit la zone spéciale, la station mobile envoie un signal de mise à jour vers un réseau téléphonique mobile, le réseau achemine le signal de mise à jour vers un moyen spécial de mise en œuvre qui adapte la valeur d'un paramètre de mise en œuvre. Conformément à l'invention, la zone spéciale est associée à la station mobile en émettant vers la station mobile des données de contrôle utilisées par la station mobile pour déterminer si le signal de définition reçu est ou non un signal de définition distinctif.

International search report:
Received at International Bureau: 29 June 2007 (29.06.2007) [EP]

International preliminary examination report:
Not available

(81) Designated States:

AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

European Patent Office (EPO) : AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR

African Intellectual Property Organization (OAPI) : BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

African Regional Intellectual Property Organization (ARIPO) : BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW

Eurasian Patent Organization (EAPO) : AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

PCT

(43) International Publication Date
4 October 2007 (04.10.2007)

(10) International Publication Number
WO 2007/110430 A1

(51) International Patent Classification:
H04Q 7/38 (2006.01) *H04Q 7/32* (2006.01)

(21) International Application Number:
PCT/EP2007/052939

(22) International Filing Date: 27 March 2007 (27.03.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
06111804.8 28 March 2006 (28.03.2006) EP

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(72) Inventor: **PÉREZ LAFUENTE, Carlos, Alberto** [ES/ES]; E-28029 Madrid (ES).

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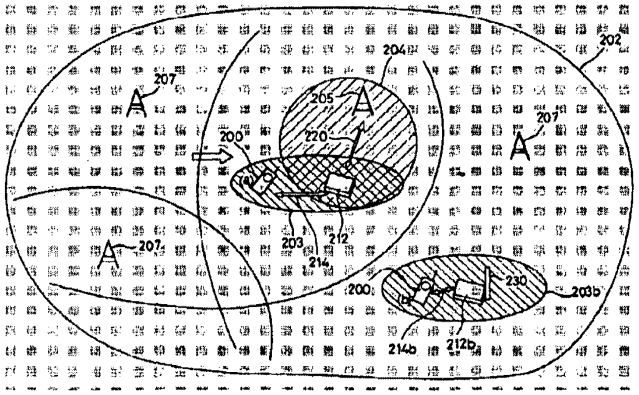
(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECIAL AREA.



(57) Abstract: Method for monitoring the presence of a mobile station (200) in at least one special area (203,203b), wherein a radio communication defining device (212,212b) transmits one radio distinctive defining signal (214,214b) that defines the special area by its coverage, the mobile station processes a signal received in order to determine whether or not it is a defining signal and more precisely a distinctive one that defines the special area, the mobile station sends an updating signal to a mobile telephone network, the network routes the updating signal to special operating means that adapt the value of an operating parameter. According to the invention, the special area is associated to the mobile station by transmitting to the mobile station a checking data used by the mobile station for determining whether or not the defining signal received is a distinctive defining signal.

WO 2007/110430 A1

Method and system for monitoring a mobile station presence in a special area.

This invention relates to a method for monitoring a mobile station presence in a special area. This invention relates also to a mobile system, a server, a radio transmitting device, and a mobile station suitable for carrying out such a method.

BACKGROUND ART

Development of short range wireless communication solutions based on the use of Bluetooth, DECT and WIFI within a small area such as homes is strong competition for mobile operators owning wide mobile networks. A mobile telephone network (called also mobile network) includes a large number of base stations and all the data processing means required to provide the telecommunication service to each mobile station serviced by said mobile network.

These short range wireless communication solutions can provide direct connection to fixed networks whose operators offer cheaper rates than those offered by mobile networks. It can therefore be of interest for mobile network operators to offer different rates depending on the instantaneous location of a mobile station connected to its mobile network, in particular in areas, called special areas, where it could face strong competition from some short range wireless communication solutions.

The published patent application nºUS20020094801 describes a technical solution: a fixed station sends an encoded first signal and the coverage of said first signal defines a special area. The fixed station and a mobile station using the special area are linked one another via the signal code. But this document does not disclose anything about the content of said coded signal. In order to realize protection against the abuse of the system, in an embodiment, this document proposes to provide the fixed station with receiving and comparison means for an access code that is to be applied to the fixed station via the mobile station in order to put the fixed station into operation.

The international application WO 00/27152 offers another solution for locating a mobile station based on the use of a guide unit that broadcasts a short range radio signal which defines a home area. This document discloses that the short range radio signal contains the identity code of said mobile station that has to identify its own identity code in order to notice to a mobile switching centre that it is located in its home area. This mobile station transmits then a home message to the mobile network, this home message being possibly used notably for defining the price/service connected to telephone calls. In this last technical solution, the guide unit has to know the identity of the mobile station and this last solution is thought to be used for a home special area.

However, this last technical solution does not allow the mobile network, to add for a mobile station one or more special areas wherein the presence of a mobile station is monitored without having to at least modify one or more guide units broadcasting in such areas. It lacks therefore of flexibility.

DISCLOSURE OF THE INVENTION

An object of the invention is therefore to provide a method for monitoring the presence of a mobile station in at least one special area, said method providing the flexibility to the mobile telephone network of associating new special areas for this mobile station in a secure way without modifying any radio transmitting device.

This object is achieved in accordance with claim 1 by providing a method for monitoring the presence of a mobile station in at least one special area associated to the mobile station, the method comprising the following steps:

a. at least one radio communication defining device transmits repeatedly in at least a channel one radio distinctive defining signal that defines the special area by its coverage,

b. the mobile station observes the channel and process any signal received in order to determine whether or not it is receiving any defining signal,

c. the mobile station processes any defining signal received in order to determine whether or not the defining signal received is a distinctive defining

signal that defines the special area,

d. the mobile station sends an updating signal to a mobile telephone network about its presence in the special area,

e. the mobile telephone network routes the updating signal to special operating means that adapt the value of at least one operating parameter depending on the presence of the mobile station in the special area,

the said method is characterized in that the special area is associated to the mobile station by transmitting to the mobile station a checking data, this checking data being used by the mobile station for determining whether or not the defining signal received is a distinctive defining signal that defines, alone or with other distinctive defining signals, the special area associated to the mobile station and the same checking data being sent to any mobile station whose presence in this special area is monitored.

Advantageously from the operator's point of view, the invention brings the flexibility needed to activate a special way of operating a mobile station in a special area by transmitting a checking data that will be stored in a mobile station database without having to modify, by way of introducing any new data (notably the identity code of said mobile station), at least one radio communication defining device like in the aforementioned international patent application WO 00/27152. Therefore, a radio communication defining device is not required to store all the mobile stations identity codes using the special area defined by at least the coverage of its defining signal(s).

According to the present invention, a special area associated to a mobile station can be defined by one or more defining signals. Therefore the checking data may preferably contain information included in every defining signals defining completely a special area (each one defines it partially) and the mobile station try to find any of this information in any defining signal received with comparison means. The mobile station may receive defining signals that do not define any special area for it. In the case where the special area is defined by two or more defining signals, this special area may be the intersection of all or part of them or the global coverage of the defining signals.

In addition, a method according to the invention is specially suitable to be used in environments like for example airports, company's premises or business centres where the number of different mobile stations to be serviced by the mobile telephone network would be high. With the solution of the aforementioned international patent application WO 00/27152, it would be necessary to store and transmit in and from a single radio communication defining device all the mobile station identity codes of the potential mobile stations using a special area defined in such environment, operation which would difficult or even impossible considering that the radio spectrum is a limited resource. Therefore, the application WO 00/27152 has a narrower geographical scope of usability. It is also not required, thanks to the invention, to send any activation code to activate a radio communication defining device and it is not required to store all the mobile stations activation codes in the radio communication defining device, as in one embodiment of the published patent application nºUS20020094801. Therefore, it is easier with this present invention to realize protection against abuse of the system.

The special operating means may be at least partly included in the data processing means of the mobile telephone network. All of them or part of them may be own or operate by an external provider of the mobile telephone network.

In a particular embodiment, the special area is deactivated for the mobile station by the mobile telephone network sending a deactivation signal to the mobile station to stop the mobile station from recognizing a defining signal that defines that special area as a distinctive one.

In a particular embodiment, the special operating means acknowledge the reception of the updating signal and transmit an acknowledgement signal to the mobile station. In this embodiment, the mobile station knows advantageously if the mobile telephone network received the updating signal or not.

In a particular embodiment, at least one radio communication defining device is a wireless device whose radio distinctive defining signal that defines the special area

is a distinctive wireless signal transmitted by the wireless device in a frequency range outside the frequency range allocated for the mobile telephone network. Preferably, the said distinctive wireless signal contains wireless device identification data and reliable information confirming that the wireless device is effectively located into a predetermined environment. The operator of the mobile telephone network advantageously avoids fraud linked to a possible shifting of the wireless device. The checking data associated to this wireless device includes this wireless device identification data.

In another particular embodiment, at least one radio communication defining device is a base station whose radio distinctive defining signal that defines the special area is a distinctive signal comprising a special mobile telephone network identification code, the checking data associated to this base station includes this special mobile telephone network identification code.

In another particular embodiment, at least one radio communication defining device is a base station whose radio distinctive defining signal that defines the special area is a distinctive base station identity signal comprising an identification code of the base station, the checking data associated to this base station includes this base station identification code. The mobile telephone network operator controls and knows the location of all the base stations broadcasting identification codes contained into the mobile station database and therefore advantageously controls the location of the special area.

In an embodiment of this invention, the special operating means store a parameters database linking the special area to the mobile station and to a set of at least the operating parameter; and the special operating means adapt the value of at least an operational parameter of this set when they receive an updating signal signalling that the mobile station exits or enters the special area. Thanks to this embodiment of the invention, the processing of these operating parameters is centralized in the special operating means and it is not done in each base station. In case the mobile station will be switch off, the mobile network operator will decide whether or not the values of the operating parameters associated to the

presence of the mobile station into special operating areas remain unchanged or are disabled into the database containing the set of operating parameters as consequence of the switching off process.

In a particular embodiment, the operating parameter is a tariff or a service flag that enables or disables a special tariff or a service for the mobile station. Advantageously, the operator's services offer can therefore being dependent on the location of the mobile station.

In a particular embodiment, the updating signal includes a request to access to a service or to a multimedia content and the mobile telephone network routes this request to a part of the special operating means that allow or forbid the provision of this service or multimedia content depending on whether or not the mobile station is into the special area. This part of the special operating means may be operated by the mobile telephone network operator or by a different provider.

In a particular embodiment, the transmission of the checking data to the mobile station is done via the mobile telephone network or via a signal of at least one radio device or via a person introducing the checking data in the mobile station.

According to the present invention, there is further provided a mobile system for monitoring the presence of a mobile station in a special area defined for this mobile station, said system comprising :

- checking means for detecting the presence of the mobile station in the special area associated to this mobile station, said checking means including :
    - At least one radio communication defining device transmitting repeatedly in at least a channel a radio distinctive defining signal that defines the special area,
    - in the mobile station, observing means for observing the channel and processing means for processing any signal received in the channel in order to determine whether or not the signal received is a defining signal and, if the signal received is a defining signal, whether or not

the signal received is a distinctive defining signal that defines the special area,

- transmission means for sending an updating signal regarding the presence of the mobile station in the special area from the processing means to special operating means included at least partly in data processing means of the mobile telephone network,

- the special operating means for adapting the value of at least one operating parameter depending on the presence of the mobile station in the special area,

characterized in that the said mobile system comprises storing means for storing a checking data in the mobile station, the processing means include means for using this checking data for determining whether or not the defining signal received is a distinctive defining signal that defines, alone or with other distinctive defining signals, the special area and the same checking data is sent to any mobile station whose presence in this special area is monitored.

In a particular embodiment of the invention, the mobile system comprises special area location monitoring means for monitoring the correct location of at least a part of the special area. It is then harder to fraud by moving the radio communication defining device. In a particular embodiment of the invention, the mobile system carries out a method according to the present invention.

This invention also concerns a server. According to the invention, this server is characterized in that it contains at least some of the special operating means included in the mobile system according to the present invention. This server may contain the whole or part of the special operating means. In this last case, the special operating means may be spread in several servers or computers.

According to the present invention, there is further provided a radio communication defining device, characterized in that it carries out a method according to the present invention. In a particular embodiment, the said radio communication defining device of the invention is a wireless device and it contains means for transmitting the distinctive wireless signal that defines the special area and means

for obtaining reliable information indicating whether or not the said wireless device is located into a predetermined environment.

This invention also concerns a mobile station, characterized in that this mobile station is suitable to carry out a method according to the present invention. This mobile station may be a mobile telephone or a Personal Digital Assistant for example.

BRIEF DESCRIPTION OF THE DRAWINGS

In the following detailed description of some possible embodiments, other features and advantages of the invention will appear, each description being made with reference to the following drawings:

Figure 1 is a schematic diagram illustrating an embodiment of a mobile system according to the invention;

Figure 2 is a schematic diagram illustrating another embodiment of a mobile system according to the invention;

Figure 3 is a schematic diagram illustrating another embodiment of a mobile system according to the invention;

Figure 4 is a flow chart illustrating partly an embodiment of a method according to the invention;

Figure 5 is a flow chart illustrating another part of an embodiment of a method according to the invention;

Figure 6 is a schematic diagram of a part of an operating parameters database in an embodiment of the invention;

Figure 7 is a schematic diagram of a part of another operating parameters database in an embodiment of the invention.

DETAILED DESCRIPTION

A mobile telephone network includes a large number of base stations and all the data processing means required to provide the telecommunication service to each

mobile station serviced by the mobile telephone network. The mobile telephone network may be cellular or not.

In this description and in the claims, it is supposed, in the case that the mobile telephone network is cellular, that each base station of the cellular mobile telephone network is associated to a unique cell. Therefore, some base stations of the cellular mobile network can be located in the same location and share technical means. For example, a tower may incorporate three sets of antennas, each set being part of a different base station of the same mobile network.

Figure 1, figure 2 and figure 3 are three schematic figures describing three particular embodiments of mobile systems according to the invention.

Figure 1 is a schematic diagram illustrating an embodiment of the invention wherein :

- any base station 107 or 105 of a mobile telephone network of an operator is a radio communication defining device transmitting a radio defining signal in a channel used by the mobile telephone network,
- the distinctive radio defining signal that defines the special area is a distinctive signal transmitted by some selected base stations 105, said distinctive signal comprising a special mobile telephone network identification code. The sum of the coverage of these selected base stations 105 defines a special area (the shaded area of figure 1).
- the checking data includes this special mobile telephone network identification code.

More precisely, Figure 1 shows a geographical area 102 covered by the mobile telephone network. The radio coverage of the mobile telephone network in this geographical area 102 is the addition of the radio coverage 104 and 106 of several base stations 105 and 107. The mobile telephone network includes data-processing means that comprise a server according to the invention including special operating means according to the invention.

Each base station is transmitting network data, including a mobile telephone network identification code, which allows a mobile station 100 in the geographical area 102 to select the appropriate mobile telephone network.

The operator of the mobile telephone network defines one special mobile telephone network identification code, called IC2, (in another embodiment, the operator may create more than one special mobile telephone network identification code) different from a normal mobile telephone network identification code, called IC1. Then the operator configures its mobile telephone network in such a way that some base stations 107 (in general the majority of them) transmit a radio defining signal comprising the normal mobile telephone network identification code and the selected base stations 105 (in general a minority of them) transmit a distinctive defining signal comprising a special mobile telephone network identification code.

The checking data (i.e. IC2) is stored into an internal mobile station database included in mobile station 100 storing means, this mobile station 100 being associated to this special area. The same checking data is sent to any mobile station whose presence in this special area is monitored.

The mobile station 100 contains observing means and processing means for determining that the distinctive defining signal transmitted by any base station 105 is received. These processing means include means for using the checking data that include, in this embodiment, comparing means. Thanks to these comparing means, the mobile telephone network identification codes received by the mobile station are compared to IC2 stored into the internal mobile station database: If the mobile station is in a position like the position (a) in figure 1, i.e. inside the special area, the mobile telephone network identification code received is equal to IC2 and therefore the mobile station 100 determines that it is into the special area. Otherwise, if the mobile station 100 is in position like the position (b) in figure 1, i.e. outside the special area, the mobile station 100 receives a defining signal containing IC1 different from IC2 and determines that it is not receiving any distinctive defining signal and therefore that it is not into the special area.

For example, if the mobile station 100 is a GSM mobile station operating into a GSM mobile telephone network, the mobile station 100 has the capability to store the received mobile telephone networks identification codes into a mobile station 100 memory. In that case, the mobile station 100 may access to such internal memory to get data to determine, together with the checking data (i.e. IC2), whether or not it is receiving any distinctive defining signal.

With the exception of the processes concerning the invention, a special mobile telephone network identification code (IC2) is equivalent, from the perspective of both the mobile station and the mobile telephone network, to a normal mobile telephone network identification code (IC1). In this context, processes such as network selection, selection / reselection of base stations and handover will not be influenced because some base stations transmit IC1 and some other transmit IC2, such lack of influence meaning that all the mobile station and the mobile telephone network processes (except the processes concerning the invention) will be handle as if IC1 and IC2 would be the same code.

For example, a mobile telephone network operator can use this embodiment of the invention to offer one set of normal billing rates in an urban environment of a country, and another set of special billing rates for a rural environment. Another example of the application of this embodiment of the invention is for a mobile telephone network operator to offer normal billing rates for the whole country except in industrial areas or business districts.

Figure 2 is a schematic diagram illustrating an example of another embodiment of a mobile system according to the invention wherein the radio communication defining device is a wireless device (212 or 212b), e.g. a WIFI, Bluetooth or DECT device, the radio distinctive defining signal that defines the special area is a distinctive wireless signal 214 or 214b (e.g. a WIFI, Bluetooth or DECT signal) transmitted by the wireless device (212 or 212b) in a frequency range outside the frequency range allocated for the mobile telephone network. A mobile station 200 whose presence in the special area is monitored includes observing means and processing means for determining whether or not any defining signal is received in

the frequency range used by the wireless device.

Each distinctive wireless signal contains wireless device identification data and reliable information confirming that its transmitting wireless device (212 or 212b in figure 2) is effectively located into a predetermined environment. The checking data comprises a set of at least one wireless device identification data.

The predetermined environment may be one or more specific geographical locations (for example several fixed points into a restaurant) or a physical environment that can be mobile (for example a car, a plane or a boat). The predetermined environment is defined by the operator of the mobile telephone network.

The distinctive wireless signals are preferably coded and the mobile station processing means include decoding means to decode the wireless signals received.

The mobile system comprises special area location monitoring means for monitoring the correct location of any wireless device that may transmit a distinctive wireless signal into this predetermined environment and therefore for monitoring at least a part of the special area.

In a particular embodiment of the special area location monitoring means, the reliable information comprised into the wireless signal confirms that the wireless device is effectively located into a predetermined geographical environment defined by the operator of the mobile telephone network when:

- the wireless device able to receive a RBU signal from at least one radio broadcasting unit (RBU)
- RBU identification data is comprised into the RBU signal,
- the wireless device receives, through the RBU signal from the RBU, the RBU identification data that are included into a RBU identification database of the wireless device..

The storage of the RBU identification data into the wireless device RBU identification data database may be done at the wireless device configuration stage. In the particular example of figure 2 and the wireless device 212, the RBU is a base station 205 of the mobile telephone network, the RBU identification data is a base station identification code. The wireless device 212 is authenticated into the mobile telephone network comprising the base station 205 and may receive the base station signal 220 when it is located within the range of coverage 204 of the base station 205.

In a second example of embodiment of the special area location monitoring means, the reliable information comprised into the wireless signal confirms that the wireless device is effectively located into a predetermined geographical environment defined by the operator of the mobile telephone network when it is physically connected to any fixed network connection points defined by the operator of the mobile telephone network for the special area and it is also authenticated into the said fixed network through any of the mentioned fixed network connection points. In this embodiment, the wireless device also comprises means for communicating with the fixed network. In a particular example of this embodiment, some parameters are stored into the wireless device during its configuration stage and such parameters are used by the wireless device to perform the said authentication process into the fixed network.

These connection points may be PSTN ('Public Switching Telephony Network') connectors for ADSL network services or electrical sockets for PLC ('Power Line Communication') home network services for example. In the particular example of figure 2 and the wireless device 212b, the wireless device 212b has to be connected to a connection point 230 of a fixed network and authenticated in this fixed network so that the reliable information comprised into the wireless signal 214b confirms that the wireless device is effectively located into a predetermined geographical environment.

In a third example of an embodiment of the special area location monitoring means (not illustrated in figure 2), the reliable information comprised into the

wireless signal confirms that the wireless device is effectively located into a predetermined physical environment defined by the operator of the mobile telephone network when:

- the wireless device is physically connected to a system registered and authorised by the mobile telephone network operator for the purposes of the invention and
- the wireless device is authenticated into the mentioned system.

In a particular example of this embodiment some parameters are stored into the wireless device during its configuration stage and such parameters are used by the wireless device to perform the referred authentication process into the system. This system may be, in an example, embedded in a mobile device such as a car or a boat.

More precisely, Figure 2 shows a geographical area 202 covered by a mobile telephone network of an operator, the radio coverage of the mobile telephone network in this geographical area 202 being the addition of the radio coverage of several base stations 205 and 207. The mobile telephone network includes a server according to the invention comprising special operating means. In this embodiment, a wireless device 212 is located in a geographical environment agreed between the operator and the user, such as for example near to the user's house or near his/her work place. The wireless device 212b is located either into a geographical environment, such as for example the user's home, or into a physical environment, which may be mobile, such as for example the user's car, such environments being agreed between the operator and the user.

The checking data associated to a special area is stored into an internal mobile station database included in a memory (storing means) of a mobile station 200 associated to this special area.

Processing means comprised in the mobile station 200 compare any wireless device identification data received with the checking data stored in its internal mobile station database and determines that a wireless signal received is a

distinctive wireless signal when:

- such wireless signal is coded in a format predefined for a distinctive wireless signal and
- the wireless device identification data comprised into the wireless signal is equal to at least one of the wireless device identification data stored into the internal mobile station database and
- the reliable information comprised into the wireless signal confirms that the wireless device is effectively located into a predetermined environment.

Otherwise the mobile station 200 determines that the wireless signal received is not a distinctive wireless signal.

In the embodiment illustrated by the figure 2, the sum of the coverage (203,203b) of the wireless devices 212 and 212b transmitting distinctive wireless signals 214 and 214b defines a special area for the mobile station 200 according to the invention.

Transmission means for sending an updating signal regarding the presence of the mobile station 200 in the special area (203, 203b) from the processing means to the special operating means are partly comprised in the mobile station 200 and in the mobile telephone network. The updating signal may comprise the result of the last determination performed by the mobile station about its presence into the special area. In another embodiment, the reliable information related to whether or not the wireless device 212 or 212b is or not effectively located into its predetermined environment is also included into the updating signal.

In this embodiment, an operator of a mobile telephone network covering a geographical area 202 may offer cheaper rates, called special billing rates, to the user of a mobile station 200 if he uses his/her mobile station 200 within the range of coverage 203 of the wireless device 212 (position (a) of the mobile station 200) or within the range of coverage 203b of the wireless device 212b (position (b) of the mobile station 200).

As an example, a mobile telephone network operator can use this embodiment of the invention to offer one set of special billing rates in premises associated to the user of the mobile station 200 as may be houses, cars or boats, and another set of normal billing rates for the rest of the environments where the user may use the mobile station 200. Another example of the application of this embodiment of the invention is for a mobile telephone network operator to offer normal billing rates for the whole country except in industrial areas, airports or restaurants.

Figure 3 is a schematic diagram illustrating an example of another embodiment of a mobile system according to the invention wherein the radio communication defining device is a base station, the radio defining signal that defines the special area is a distinctive base station identity signal comprising an identification code that identifies this base station, the checking data includes a set of at least one base station identification code.

Figure 3 shows a geographical area 302 covered by a mobile telephone network of an operator, the radio coverage of the mobile telephone network in this geographical area 302 being the addition of the radio coverage 304 and 306 of several base stations 305 and 307. The mobile telephone network includes a server according to the invention comprising special operating means.

Any mobile station 300 whose presence in the special area is monitored includes observing means and processing means for observing and processing the base station identity signal of the mobile telephone network base stations 305 and 307.

The checking data is stored into an internal mobile station database included in a memory (storing means) of a mobile station 300 associated to this special area.

Processing means of the mobile station 300 process the base stations identity signals received and compare their base station identification codes to the checking data and determine that at least one distinctive base station identification code signal is received (i.e. the mobile station 300 is in position (a)) when any of the base station identification codes received is equal to at least one of the base

station identification codes stored into the internal mobile station database and otherwise determine that it is not receiving any distinctive base station identification code signal (i.e. the mobile station 300 is in position (b)).

For example, when a GSM mobile station is operating into a GSM mobile telephone network, the GSM mobile station 300 receives the identification code of the active base station and also the identification codes of some available neighbours base stations. The GSM mobile station 300 may consequently process the base station identification codes received to determine, together with the checking data, whether or not it is receiving any distinctive base station identification code signal.

The sum of the coverages 304 of the base stations 305 transmitting distinctive base station identification code signals defines a special area for the mobile station 300 according to the invention.

In this embodiment, an operator of a mobile telephone network covering a geographical area 302 may offer special services to the user of a mobile station 300 if he uses his/her mobile station 300 within the range of coverage of the base stations 305.

As an example a mobile telephone network operator can use this embodiment of the invention to offer one set of normal billing rates in an urban environment of a country, and another set of special billing rates for a rural environment. Another example of the application of this embodiment of the invention is for a mobile telephone network operator to offer normal billing rates for the whole country except in industrial areas or small towns.

Any combination of the embodiments of a mobile system according to the invention described herein is another embodiment here below of a mobile system according to the invention. That combination can be the result from 'N' different distinctive defining signals, each one comprising a different special mobile telephone network identification code or a different wireless device identification

data or a different base station identification code ,.

For example, the mobile telephone network operator can then propose 'N' different sets of rates for 'N' different kinds of special areas for a given mobile station. In an example, an operator installs in the user's house a wireless device whose position is controlled by being or not in the range of coverage of a particular base station of the mobile network, another wireless device whose position is controlled by its connection to a fix network in the user's holiday cottage and a third wireless device whose position is controlled by its connection to a system embedded in the user's car. The operator creates a special mobile telephone network identification code transmitted by the all the base stations of the user's city. Then the operator stores in the storing means of the user's mobile station the three wireless devices identification data, the user's city special mobile telephone network identification code and several sets of base stations identification codes, each set being the set of identification of base stations covering public places like airports and train stations. Then, the operator can adapt the tariffs charged and the services provided to the user depending notably whether his/her mobile station is in its city or outside, in its house, holiday cottage or car and / or in public places.

An embodiment of a method for monitoring the presence of a mobile station in at least one special area according to the invention may include at least three parts:

- a first part, illustrated in figure 4, that includes the steps needed to successfully transmit, store, erase and maintain checking data in a mobile station according to the invention,
- a second part, illustrated in figure 5, that includes the steps needed for the mobile station to monitor its location in the special areas using the checking data that were transmitted to it and
- a third part, illustrated in figure 6 and 7, that includes the adaptation of the operational parameters depending on the presence of the mobile station in any special area where this mobile station is monitoring its presence.

This embodiment of such method according to the invention may be carried out for example using any of the embodiments of mobile systems according to the

invention described before.

Figure 4 is a flowchart of the first part 400 of a method according to one embodiment of the invention for successfully transmit, store, erase and maintain checking data in a mobile station according to the invention.

A mobile telephone network comprises in this embodiment data processing means that includes special operating means; the special operating means are included in a server and therefore are advantageously centralised and not distributed between each base station of the mobile telephone network.

An operator of a mobile telephone network (i.e. the company that operates this mobile telephone network) wishes to propose special billing rates and/or special services to users of its mobile telephone network, each user carrying a mobile station, when said users are within special areas of the invention.

The part 400 of this embodiment starts in step 402 when the operator wishes to monitor the presence of a mobile station in a special area.

In step 404, the operator defines a new special area if the operator wishes to create a new one. The special areas may be agreed between the operator and the user or simply defined by the operator.

The definition of the special area can be done by the coverage of one or several radio defining signals or by the intersection of the coverage of two or more radio defining signals.

In step 406, the operator updates a parameters database included in the special operating means. The parameters database associates each special area defined with the mobile stations whose presence in such special area is monitored. For the purposes of such association, each mobile station is identified into the parameters database by means of a mobile station identifier. In the parameters database, each mobile station identifier is associated with special tariffs and/or services

which may be or not available for the mobile station depending on the presence of such mobile station into a given special area (and also depending on whether such tariffs and/or services are enabled or disabled into the parameters database for such mobile station).

The operating parameter(s) that may be adapted depending on the presence of the mobile station in one or more special areas at the same time may be notably related to activation or deactivation flags of tariffs and/or services provided to the mobile station by the mobile telephone network. Therefore, tariffs may be more or less expensive for the said mobile station in predetermined special areas and / or the mobile station may be able or unable to use predetermined services offered by the operator of the mobile telephone network in predetermined special areas.

In step 408, the special operating means send a checking data to the mobile station.

The checking data transmission can notably be done:

1) by sending the checking data stored in a server of the mobile telephone network to the mobile station through the mobile telephone network transmission channels. In a particular example, the mobile telephone network is a GSM network and the checking data from the server will be sent to the mobile station via encrypted short messages using an 'Over the Air' platform. The mobile station is able to decode the short messages and to store the checking data into an internal mobile station database,

2) through the use of a mobile station special software able to store into an internal mobile station database checking data obtained by the mobile station from at least one radio communication defining device. In a particular example, it may be necessary that an operator's representative introduces a password to allow the mobile station special software to operate. The mobile station special software may ask the operator's representative to validate the storage of the checking data through the mobile telephone keyboard,

3) or via a person (e.g. an operator's representative) who enters the checking data into the mobile station using the mobile station keyboard.

Regarding the second option, two examples are provided. In a first example, the mobile station is operating in a GSM network, the mobile station obtains from the active cell its cell identification code and from other neighbouring cells, if available, their cell identification codes. When the special software is run for example in the user's home, it is able to obtain such cells identification codes and store them in the internal mobile station database of checking data, associating them with the user's home special area.

In a second example, the mobile station can obtain, by using a WIFI device embedded into the mobile station, neighbouring WIFI devices identification data. When the special software is run for example in the user's home, it is able to obtain such WIFI device identification data and store them in the internal mobile station database of checking data, associating them with the user's home special area.

Once the checking data has been successfully stored into the internal mobile station database, a confirmation of new checking data is sent to the parameters database. In addition, notably regarding to the second and third options to transmit checking data to the mobile station, the stored checking data may be sent by the mobile station to the parameters database through the mobile telephone network for the mobile telephone network to know this checking data..

In step 410, the special operating means wait for the confirmation of new checking data from the mobile station. Once the information is received, it is stored into the parameters database and the special operating means transmit an acknowledgment to the mobile station. In case the mobile station does not receive the acknowledgment after a certain time, the mobile station sends the confirmation of new checking data again until it receives the acknowledgment or until it resents the information up to a maximum number of times.

It is advantageous to store the checking data into the mobile station, mainly in comparison to the prior art where it was necessary to store mobile station identity

codes and/or activation signals into a fix unit.

If the confirmation of new checking data is not received (possibility 412) by the special operating means, the special operating means transmit again the checking data to the mobile station (step 408).

When the confirmation of new checking data from the mobile station is received (possibility 414) by the special operating means, the special operating means know in step 416 that the mobile station updated its internal mobile station database and the internal mobile station database is in accordance with the operator wishes.

After the first special area checking data or set of checking data is stored in the internal mobile station database, the operator can add more in the same way.

In another hand, in this embodiment of a method according to the invention, the operator can deactivate a special area following the steps 430 to 440.

In step 430, the operator chooses to deactivate a special area for a mobile station, with or without the agreement of the mobile station user. In step 432, the operator deactivates into the parameters database all the special tariffs and/or services associated to the presence of the mobile station into the special area. In step 434, the special operating means transmit a deactivation signal to the mobile station (using the mobile telephone network) asking the mobile station to erase, into its internal mobile station database, the checking data associated with the special area that the operator wishes to deactivate.

In another embodiment, the deactivation signal just blocks into the mobile station the use of the special area checking data but does not erase it. The result is the same: the deactivation signal avoids the mobile station recognising the special area(s) associated with this deactivation signal.

The transmission of the deactivation signal may be done notably as in the first and

third options for transmitting the checking data (as seen in description of step 408).

Once the deactivation signal has been successfully received and processed by the mobile station, a confirmation of deactivation is sent to the parameters database. In step 436, the special operating means wait for the confirmation of deactivation from the mobile station. Once the confirmation of deactivation is received by the special operating means (possibility 440), this fact is stored into the parameters database and the special operating means transmit an acknowledgment to the mobile station. In case the mobile station does not receive the acknowledgment after a certain time, the mobile station sends the confirmation of deactivation again until it receives the acknowledgment or, in another embodiment, until it resents the confirmation of deactivation up to a maximum number of times.

If the confirmation of deactivation is not received (possibility 438) by the special operating means, the special operating means transmit again a deactivation signal to the mobile station (step 434).

When the confirmation from the mobile station regarding the successful reception and process of the deactivation signal is received (possibility 440) by the operating means, the operating means know in step 416 that the mobile station updated its internal checking data database and the internal mobile station database is in accordance with the operator wishes.

In another hand, in this embodiment of a method according to the invention, the operator can modify a special area following the steps 450 to 460 to adapt the internal mobile station database to the operator's wishes. In step 450, the operator chooses to modify a special area for a given mobile station, with or without the agreement of the mobile station user, and defines such modified special area. For example, this can be done by including in the checking data associated to one special area, some additional checking data for the special area being not only the coverage of one distinctive defining signal but the intersection (or the sum) of the coverage of the former one and the coverage of a new one. This can be done too by erasing in a set of checking data associated to one special area, some

checking data in order to, for example, transform a special area defined as the intersection (or the sum) of the coverage of two distinctive defining signals into a special area defined as the coverage of one only distinctive defining signal.

In case the operator wishes to add a new checking data (the steps for erasing one can be easily inferred by analogy), in step 452, the operator updates the parameters database in order to include, if known, the new checking data associated to the mobile station and the modified special area.

In step 454, the special operating means send, by using any of the three options for transmitting checking data described in step 408, the new checking data to the mobile station using the mobile telephone network.

Once the new checking data has been successfully stored into the part of the internal mobile station database that contains the checking data linked to the special area that has to be modified, a confirmation of modification of checking data is sent to the parameters database. In addition, typically regarding to the second and third options to transmit checking data to the mobile station described in step 408, the stored new checking data may be sent by the mobile station to the parameters database through the mobile telephone network. In step 456, the special operating means wait for the confirmation of modification of checking data from the mobile station. Once the confirmation of modification is received, this fact is stored into the parameters database and the special operating means transmit an acknowledgment to the mobile station. In case the mobile station does not receive the acknowledgment after a certain time, the mobile station sends the information again until it receives the acknowledgment or, in another embodiment, until it resents the information up to a maximum number of times.

If the confirmation of modification of checking data is not received (possibility 458) by the special operating means, the special operating means send again the new checking data to the mobile station (step 454).

When the confirmation of modification sent from the mobile station is received by

the special operating means (possibility 460), the special operating means know that in step 416, the mobile station updated its internal checking data database and the internal mobile station database is in accordance with the operator wishes.

The second part of this embodiment of a method according to the invention is illustrated in figure 5 and includes the steps needed for the mobile station to monitor its location in the special areas using the checking data that were transmitted into it.

In step 500, a mobile station is switched on. In an embodiment, the mobile telephone network sets the values of the operating parameters managed in the parameters database to a set of initial values when the mobile station is switched off (as at that time it is not present in any special area) in order to start operating the mobile station when it is just switched on. In step 510, the mobile station observes, through the appropriate channel(s), any signal received and process it to determine whether or not it is receiving any defining signal from radio communication defining devices (e.g. from the base stations of a mobile telephone network or from wireless devices).

In one embodiment, the defining signal is coded (or part of the data contained in such a defining signal). In this embodiment, the mobile station is able to decode the information as part of the processing of the defining signals received.

A radio defining signal from a radio communication defining device may be transmitted on a continuous or periodical basis. The mobile station observation as to whether or not it is receiving any defining signal can be continuous or periodical. In step 512, the mobile station decide if it receives a defining signal (possibility 516) or not (possibility 514) after observing and processing any signal received.

When one or several defining signals are received, they are processed in step 518 by the mobile station notably in order to compare, in this embodiment, the appropriate part of their content with any checking data stored in the internal

mobile station database.

When a defining signal received is from a wireless device (transmitted in a frequency range outside the frequency range allocated for the mobile telephone network), the mobile station preferably also search in step 518 whether or not the defining signal received contains reliable information confirming (or not) that the wireless device is effectively located into a predetermined environment defined by the operator of the mobile telephone network.

Then, in step 520, depending on the result of the internal process carried out in step 518, the mobile station decides whether (possibility 524) or not (possibility 522) the defining signal received is a distinctive defining signal that defines a special area for this mobile station, therefore validating or not the defining signal received as a distinctive defining signal.

If the special area is defined by the sum of the coverage of several distinctive defining signals, the mobile station has to recognize at least one of the three distinctive defining signals at one time in order to determine that it is into this special area.

In another example, the mobile station knows that it is into a special area defined as the intersection of the coverage of several distinctive defining signals when it is observing and recognizing at one time all these distinctive defining signals.

The mobile station may be prepared to display a text or an icon (e.g. 'home' or 'airport' icon) when the mobile station determines that it is included in a particular special area for this mobile station.

In step 526, the mobile station sends and updating signal to the mobile telephone network about its presence in the special area.

In a particular embodiment, the mobile station sends periodically (for example every 30 seconds) an updating signal about its presence into a special area, such

updating signal comprising the result of the last determination performed by the mobile station about its presence into the special area.

In another particular embodiment the mobile station only sends to the mobile telephone network an updating signal about its presence into a special area when it enters into or exit from such special area.

For a special area defined by the sum of the coverage of several distinctive defining signals:

If the mobile station processing of the defining signals received in a certain moment determines that at least one distinctive defining signal associated to this special area is received:

- If the previous processing of the defining signals received determined that no distinctive defining signal associated to this special area was received at that time then the mobile station interprets that it has recently entered into this special area.
- If the next processing of the defining signals received determines that at least one distinctive defining signal associated to this special area is still being received then the mobile station interprets that it remains located into this special area;

If the mobile station processing of the defining signals received in a certain moment determines that no distinctive defining signal associated to this special area is received:

- If the previous processing of the defining signals received determined that at least one distinctive defining signal associated to this special area was received at that time then the mobile station interprets that it has recently left this special area.
- If the next processing of the defining signals received determines that no distinctive defining signal associated to this special area is still being received then the mobile station interprets that it remains out of this special area.

For a special area defined by the intersection of the coverage of several distinctive defining signals a procedure equivalent to the one above can be easily inferred by analogy.

The updating signal may be sent through a diversity of channels provided by the mobile telephone network. For example, in a GSM mobile network, the updating signals can be sent using the USSD ('Unstructured Supplementary Service Data', GSM standards) channel. The data comprised into the updating signal will typically be coded by the mobile station and decoded by the special operating means of the server.

In this embodiment, the updating signals are sent from the mobile station to the special operating means of the mobile telephone network requesting an acknowledgement from the special operating means.

In step 530, the mobile station search for the acknowledgment from the special operating means.

If the acknowledgement is not received in the mobile station (possibility 532) because the updating signal does not reach the special operating means or the mobile station detects a failure in the transmission of the updating signal or there is a failure in the transmission of the acknowledgment, then the mobile station may send the updating signal again up to a predetermined number of times according to a predefined retransmissions policy.

When the acknowledgment is received (possibility 531) into the mobile station, the mobile station knows in step 534 that the special operating means will make the appropriate adaptations in the operating parameters of the special areas database.

More generally, the special operating means area waiting for any updating signal from any mobile station whose identification code is into the parameters database. When the special operating means receive an updating signal from a mobile

station, they then adapt the operational parameters of the special areas database that depend on the presence of this mobile station in a special area associated with this mobile station and send the acknowledgement.

In one embodiment, the updating signal contains a request to access to services and/or to download contents provided direct or indirectly by the mobile telephone network of the operator. Then, an access or downloading right is granted or denied by the mobile telephone network depending on the presence of the mobile station in a special area.

The acknowledgment signals of the updating signal from the special operating means are preferably coded. In that case, the mobile station processing means are able to decode the acknowledgments of the updating signals.

The operator of the mobile telephone network has therefore a guarantee that the mobile telephone network will know at least a change on the presence of the mobile station in one or more special areas even if the radio communication link between the mobile station and the mobile telephone network is temporarily unavailable.

In a particular embodiment the mobile telephone network may enable or disable to the mobile station to use predetermined services depending on the presence of the mobile station into a special area.

As an example, the mobile station may incorporate special checking software able to generate statistics about the use of the mobile telephone (phone calls, messages, etc.) into special areas. This software may be enabled for operation by the mobile telephone network when the mobile station enters into a predetermined special area and disabled when the mobile station exits such special area.

As another example, the mobile telephone network may broadcast certain messages associated to a special area (e.g. airport information). The mobile station can be enabled by the mobile telephone network to accept and display

those broadcasted messages when it is located within this special area and disabled when it exits the special area.

The third part of this embodiment of a method according to the invention is illustrated in figures 6 and 7 and includes the adaptation of the operational parameters to the presence of the mobile station in any special area where this mobile station is monitoring its presence.

When the mobile telephone network receives an updating signal, the special operating means of the server adjust the value of at least one operating parameter of a parameters database linking the special area and the mobile station. The value of the operating parameter(s) depends on the information contained into the updating signal about the presence of the mobile station into the special area.

In a particular example, operating parameters related to a special tariff and some services are enabled or remains enabled into the referred parameters database when the information contained into the updating signal indicates that the mobile station has recently entered or remains located into the special area. In the same example, the special tariff and the services are disabled or remains disabled into the referred parameters database when the information contained into the updating signal indicates that the mobile station recently left or remains out of the special area.

More precisely, Figure 6 is a schematic illustration of an example of a part of the parameters database 600 of operating parameters included in the special operating means according to an embodiment of the invention. The illustrated part of the special operating means database 600 links two special areas SA1 606 and SA2 608 with 3 mobile stations identification codes MS(i-1), MS(i) and MS(I+1), each of which having an entry 603, 604 and 605.

The column 602 of the database comprises the mobile stations identification codes. A mobile station identification code refers to a code that is associated with the subscription of the mobile station user into the mobile telephone network. As

an example, in a GSM network the referred mobile station identification code may be the MSISDN.

In this example, the set of checking data of mobile station MS(i) for the special area SA1 606, defined in the column 610/606 of the entry 604 contains :

- a checking data 650 comprised into the distinctive defining signal of a first base station BS1 (e.g. the identification code of BS1), such distinctive defining signal defines the special area SA1 606,
- a checking data 652 comprised into the distinctive defining signal of a second base station BS2 (e.g. the identification code of BS1), such distinctive defining signal also defines the special area SA1 606, and
- a checking data 654 comprised into the distinctive defining signal of a wireless device WD1 (e.g. the identification data of WD1), such distinctive defining signal also defines the special area SA1 606,

for the special area SA1. The mobile station determines that it is located into the special area SA1 606 when it receives at least one of the three identifiers 650, 652, 654 comprised into the distinctive defining signals coming from BS1, BS2 and WD1, i.e. when it is located within the range of coverage of any of the three distinctive defining signals (according to one of the embodiments of the invention, in the case of the defining signal of WD1, in order to consider that such defining signal is a distinctive defining signal, it will additionally be necessary that the reliable information comprised into the defining signal confirms that WD1 is effectively located into a predetermined environment).

In this example, the value of column 611/606 for the mobile station MS(i) and for the special area 606 is enabled ('+') or disabled ('-') at a given time depending on whether or not the mobile telephone network receives a confirmation of new checking data (see description of figure 4) from this mobile station confirming that all the checking data corresponding with the special area has been stored into this mobile station (based on the same principle, it would also be possible to add another column in the parameters database to monitor the reception of confirmations of deactivation of checking data and another one to monitor the reception of confirmations of modification of checking data for a given special area

: see description of figure 4).

In this example, the value of column 611/606 for MS(i) is enabled (+) for the special area SA1 606. In another example, the value of column 611/606 for the mobile station MS (i) and for the special area 606 contains a set of values enabled ('+') or disabled ('-'), one for each checking data.

The column 612/606 corresponding to the operating parameter "Mobile Station Control Flag" is enabled ('+') or disabled ('-') at a given time for the mobile station MS (i) and for the special area SA1 606 depending on the information comprised into the updating signals received about the presence of the mobile station into the special area 606. In this example, at a given time, the mobile station MS(i) is supposed to be in SA1 606 as the operating parameter "Mobile Station Control Flag" 612/606 is enabled ('+').

When the "Mobile Station Control Flag" is enabled (+) at a given time for the mobile station MS(i) and for the special area 606, certain tariffs or services related to such special area may be available for the user of the mobile station depending on the value (+) or (-) of the corresponding tariff or service flags for such mobile station and special area into the operating parameters database. In this example, at a given time, in the column 'Tariff identifier' 614/606, the parameter is then set at 'XXX' and in the column 616/606, the 'Tariff Flag' is enabled (+). In the column 618/606, the 'Service identifier' parameter is then set at 'YYY' and in the column 620/606, the 'Service Flag' of said service 'YYY' is enabled ('+'). In the column 622/606, the 'Service identifier' parameter is set at 'ZZZ' and in the column 624/606, the 'Service Flag' of said service 'ZZZ' is disabled ('-') because service ZZZ is disabled at that time for the mobile station MS(i) and the special area SA1 606.

The set of columns 610/608 to 624/608 provides the same kind of information for the special area SA2 608. The set of checking data of mobile station MS(i) (column 610/608) refers to wireless devices WD1 with the checking data 656, WD2 with the checking data 658 and WD3 with the checking data 660 for the

special area SA2 608. In this special area, at that time, the value of column 611/608 for MS(i) is disabled (-), the operating parameter "Mobile Station Control Flag" (column 612/608) is disabled ('-'). Tariff 'PPP' (column 614/608) is enabled ('+' in column 616/608), service 'QQQ' (column 618/608) is enabled ('+' in column 620/608) and service 'RRR' (column 622/608) is enabled ('+' in column 624/608). The tariff PPP and the services QQQ and RRR are associated to mobile station MS(i) when it is in the special area SA2 608.

In another embodiment of the invention, the special operating means are distributed into different servers of the mobile telephone network or of service providers associated with the mobile telephone network and an updating signal may be sent to any of those servers.

In a particular example of this embodiment, there will be a server containing a part of the special operating means that stores a parameters database (e.g. the database illustrated in figure 6) of operating parameters containing the special areas checking data. In this example part of the updating signals from the mobile stations may be sent to this server of the mobile telephone network and processed by the part of the special operating means that this server contains.

In this example there will be at least another server, called switch server, into the mobile telephone network or associated to it, server that is including another part of the special operating means that include another parameters database of operating parameters, called switch parameters database, that does not contain checking data. The part of special operating means included in this other server allows or forbids the provision of some multimedia contents and applications available to mobile stations (and may preferably provide them itself) depending on the presence, in any special area registered in this switch parameters database, of any mobile station associated with this special area in this switch parameters database.

Figure 7 illustrates an example of a part of a switch parameters database 700 where 702, 703, 704, 705, 706, 708, 712/706 and 712/708 have the same

meaning than respectively 602, 603, 604, 605, 606, 608, 612/606 and 612/608 of Figure 6. The contents and applications 'AAA' are available to the mobile station MS(i) when it is into the special area SA1 706. The contents and applications 'BBB' are available to the mobile station MS(i) when it is into the special area SA2 708.

In the example of figure 7, the part of the special operating means included into the switch server receives, embedded into an updating signal from MS(i), a request to download a content or an application 'AAA', and the downloading right is granted because such updating signal from MS(i) also indicates (value '+' in column 712/706) that it is located in the special area 706 at that time.

In the same manner, in the example of figure 7, the part of the special operating means included into the switch server receives, embedded into an updating signal from MS(i), a request to download a content or an application 'BBB', but the downloading right is not granted because such updating signal from MS(i) also indicates (value '–' in column 712/708) that it is not located in the special area 708 at that time.

In some cases the switch server is entirely property of the mobile telephone network operator while in some others there is an agreement in place with a third party.

Although the present invention has been described in detail for purpose of illustration, it is understood that such detail is solely for that purpose, and variations can be made therein by those skilled in the art without departing from the scope of the invention. Thus, while the preferred embodiments of the method and of the mobile system have been described in reference to the environment in which they were developed, they are merely illustrative of the principles of the invention. Other embodiments and configurations may be devised without departing from the scope of the appended claims.

Further, although the embodiments of the invention described with reference to the

drawings comprise computer apparatus and processes performed in computer apparatus, the invention also extends to computer programs, particularly computer programs on or in a carrier, adapted for putting the invention into practice. The program may be in the form of source code, object code, a code intermediate source and object code such as in partially compiled form, or in any other form suitable for use in the implementation of the processes according to the invention. The carrier may be any entity or device capable of carrying the program. For example, the carrier may comprise a storage medium, such as a ROM, for example a CD ROM or a semiconductor ROM, or a magnetic recording medium, for example a floppy disc or hard disk. Further, the carrier may be a transmissible carrier such as an electrical or optical signal which may be conveyed via electrical or optical cable or by radio or other means. When the program is embodied in a signal which may be conveyed directly by a cable or other device or means, the carrier may be constituted by such cable or other device or means. Alternatively, the carrier may be an integrated circuit in which the program is embedded, the integrated circuit being adapted for performing, or for use in the performance of, the relevant processes.

CLAIMS

1. A method for monitoring the presence of a mobile station (100,200,300) in at least one special area (104,203,203b,304) associated to the mobile station, the method comprising the following steps :

(a) at least one radio communication defining device (105, 212, 212b, 305) transmits repeatedly in at least a channel one radio distinctive defining signal (214, 214b) that defines the special area by its coverage,

(b) (512) the mobile station observes the channel and process any signal received in order to determine whether or not it is receiving any defining signal,

(c) the mobile station processes any defining signal received in order to determine whether or not the defining signal received is a distinctive defining signal that defines the special area,

(d) (526) the mobile station sends an updating signal to a mobile telephone network about its presence in the special area,

(e) the mobile telephone network routes the updating signal to special operating means (600,700) that adapt the value of at least one operating parameter (612/606,612/608,712/706,712/708) depending on the presence of the mobile station in the special area,

the said method is characterized in that the special area is associated to the mobile station by transmitting to the mobile station a checking data (408,454), this checking data being used (518) by the mobile station for determining whether (524) or not (522) the defining signal received is a distinctive defining signal that defines, alone or with other distinctive defining signals, the special area associated to the mobile station and the same checking data being sent to any mobile station whose presence in this special area is monitored.

2. A method according to claim 1, characterized in that the special area (104,203,203b,304) is deactivated (440) for the mobile station by the mobile telephone network sending a deactivation signal to the mobile station (100,200,300) to stop the mobile station from recognizing a defining signal that defines that special area as a distinctive one.

3. A method according to claim 1 or 2, characterized in that the special operating means acknowledge (531) the reception of the updating signal and transmit an acknowledgement signal to the mobile station.

4. A method according to claim 1, 2 or 3, characterized in that at least one radio communication defining device is a wireless device (212,212b) whose radio distinctive defining signal that defines the special area is a distinctive wireless signal (214,214b) transmitted by the wireless device in a frequency range outside the frequency range allocated for the mobile telephone network, the said distinctive wireless signal contains wireless device identification data and reliable information confirming that the wireless device is effectively located into a predetermined environment (204,230), the checking data associated to this wireless device (212,212b) includes this wireless device identification data.

5. A method according to any of claims 1 to 4, characterized in that at least one radio communication defining device is a base station (105) whose radio distinctive defining signal that defines the special area (104) is a distinctive signal comprising a special mobile telephone network identification code, the checking data associated to this base station (105) includes this special mobile telephone network identification code.

6. A method according to any of claims 1 to 5, characterized in that at least one radio communication defining device is a base station (305) whose radio distinctive defining signal that defines the special area (304) is a distinctive base station identity signal comprising an identification code of the base station, the checking data associated to this base station includes this base station identification code.

7. A method according to any preceding claim, characterized in that the special operating means store a parameters database (600,700) linking the special area (104,203,203b,304) to the mobile station (100,200,300) and to a set of at least the operating parameter (612/606,612/608,712/706,712/708); and the special operating means adapt the value of at least an operational parameter of this set

when they receive an updating signal signalling that the mobile station exits or enters the special area.

8. A method according to any preceding claim, characterized in that the operating parameter is a tariff (616/606, 616/608) flag or a service flag (620/606,624/606,620/608,624/608) that enables or disables a special tariff ('XXX','PPP') or a service ('YYY','ZZZ','QQQ','RRR') for the mobile station (100,200,300).

9. A method according to any preceding claim, characterized in that the updating signal includes a request to access to a service ('AAA','BBB') or to a multimedia content ('AAA','BBB') and the mobile telephone network routes this request to a part of the special operating means (700) that allow or forbid the provision of this service or multimedia content depending on whether or not the mobile station (100,200,300) is into the special area (104,203,203b,304).

10. A method according to any preceding claim, characterized in that the transmission of the checking data to the mobile station (100,200,300) is done via the mobile telephone network or via a signal of a at least one radio device or via a person introducing the checking data in the mobile station.

11. A mobile system for monitoring the presence of a mobile station (100,200,300) in a special area (104,203,203b,304) defined for this mobile station, said system comprising:

- checking means for detecting the presence of the mobile station in the special area associated to this mobile station, said checking means including :
  - At least one radio communication defining device (105, 212, 212b, 305) transmitting repeatedly in at least a channel a radio distinctive defining signal (214, 214b) that defines the special area,
  - in the mobile station, observing means for observing the channel and processing means for processing any signal received in the channel in order to determine whether or not the signal received is a defining signal and, if the signal received is a defining signal, whether or not the signal

received is a distinctive defining signal that defines the special area,

- transmission means for sending an updating signal regarding the presence of the mobile station in the special area from the processing means to special operating means included at least partly in data processing means of the mobile telephone network,

- the special operating means for adapting the value of at least one operating parameter (612/606,612/608,712/706,712/708) depending on the presence of the mobile station in the special area,

characterized in that the said mobile system comprises storing means for storing a checking data in the mobile station, the processing means include means for using this checking data for determining whether or not the defining signal received is a distinctive defining signal that defines, alone or with other distinctive defining signals, the special area and the same checking data is sent to any mobile station whose presence in this special area is monitored.

12. A mobile system according to claim 11, characterized in that the mobile system comprises special area location monitoring means (205,212) for monitoring the correct location of at least a part of the special area (212).

13. A mobile system according to claim 11 or 12, characterized in that the mobile system carries out a method according to any one of claims 1 to 10.

14. A server, characterized in that it contains at least some of the special operating means included in the mobile system according to any one of claims 11 to 13.

15. A radio communication defining device (105,212,212b,305), characterized in that it carries out a method according to any one of the claims 1 to 10.

16. A radio communication defining device according to claim 15, characterized in that the said radio communication defining device is a wireless device (212,212b) and it contains means for transmitting a distinctive wireless signal (214,214b) that defines the special area (203,203b) and means for obtaining reliable information

indicating whether or not the said wireless device is located into a predetermined environment (204,230).

17. A mobile station, characterized in that this mobile station is suitable to carry out a method according to any one of the claims 1 to 10.

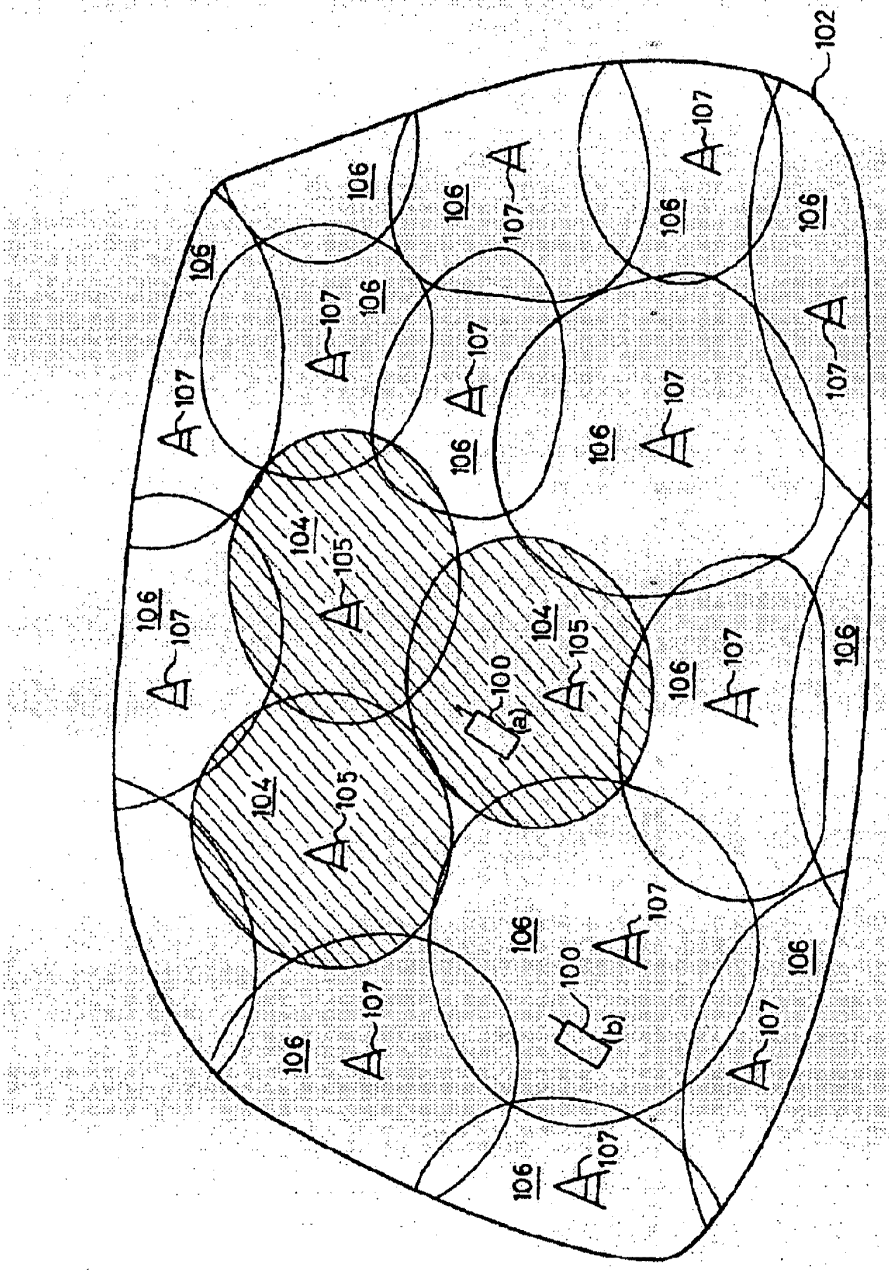


FIG_1

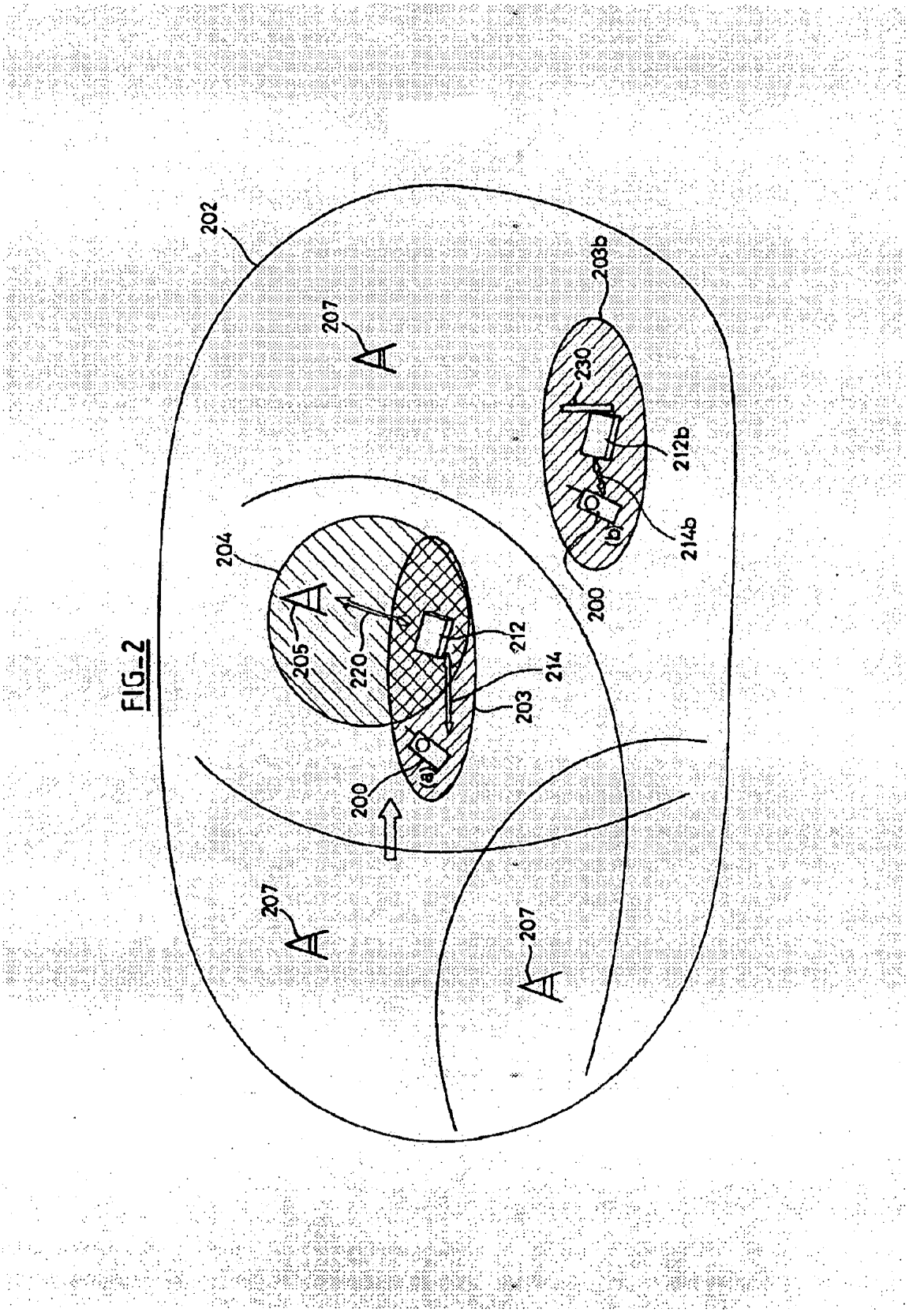

202
207
203b
230
212b
214b
204
205
220
212
214
203
200
(a)
(b)
207
207
207

FIG_2

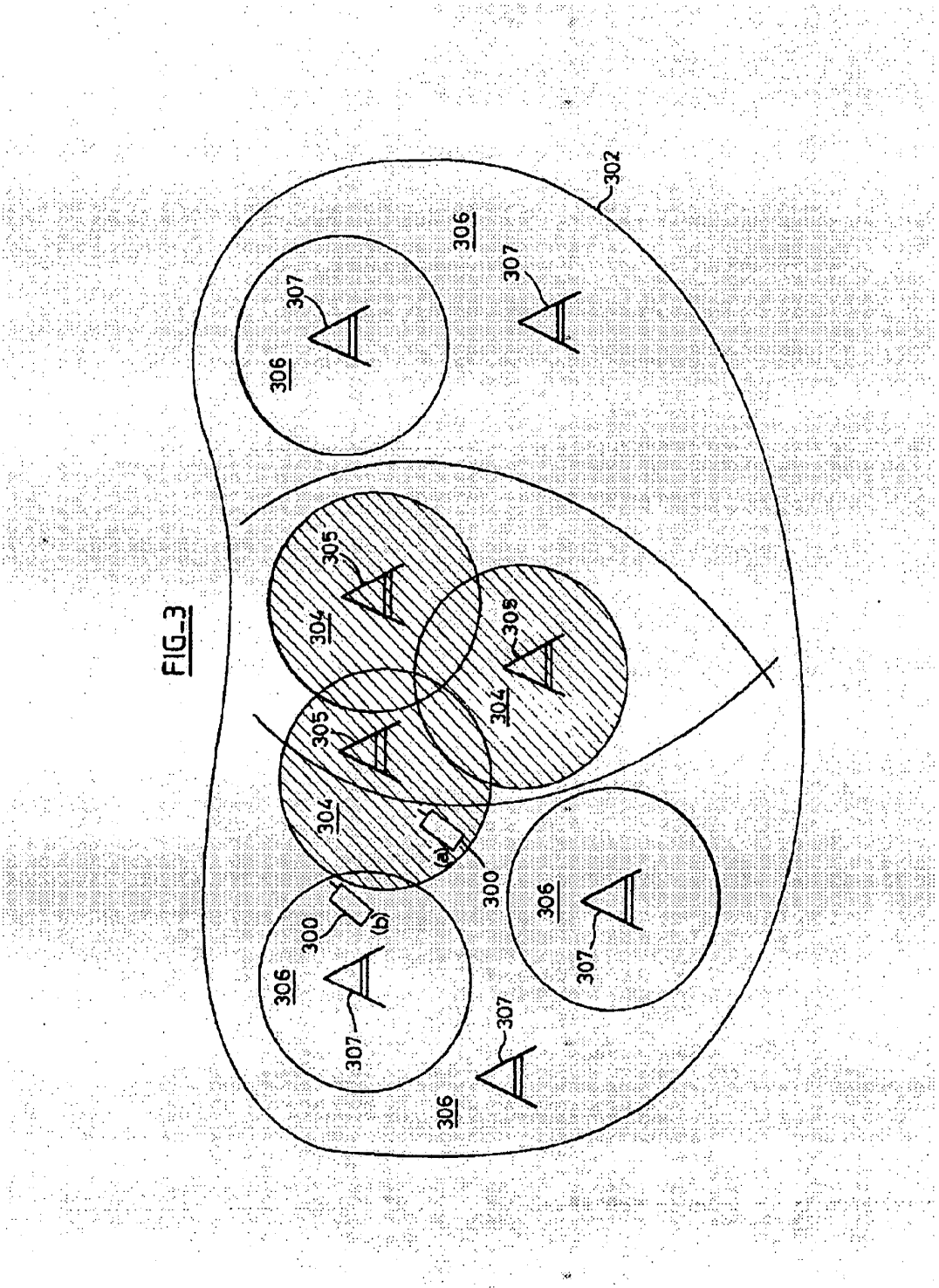


FIG_3

FIG_4

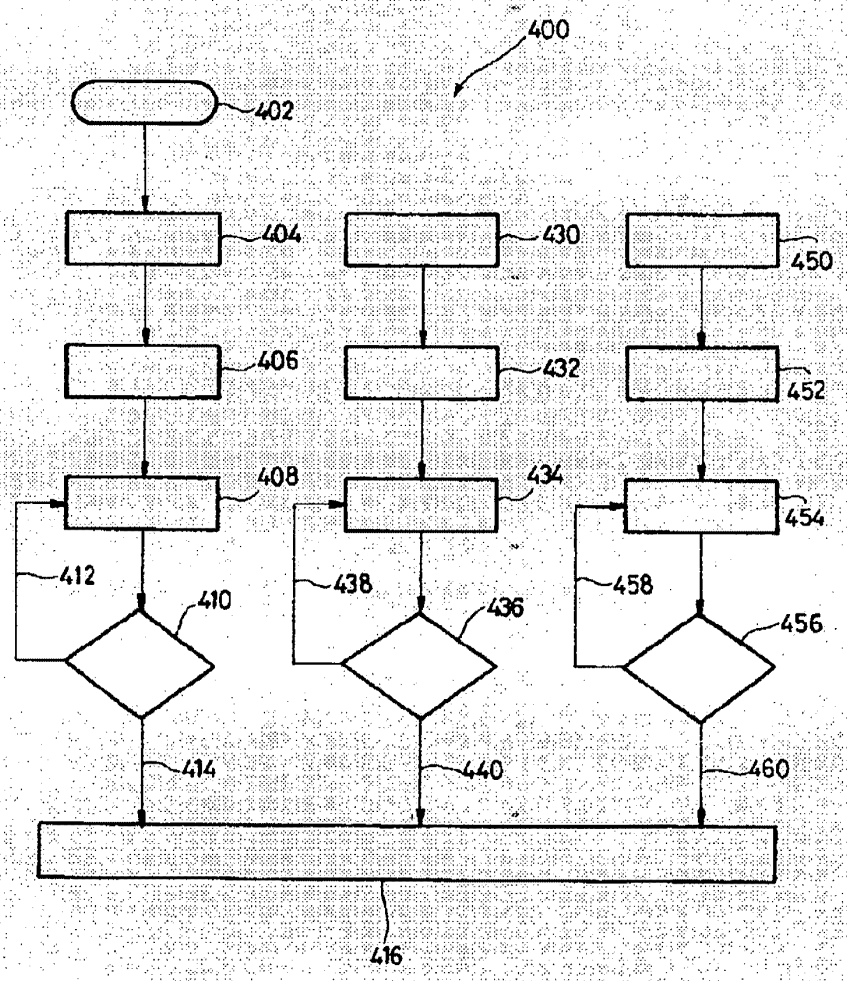

400
402
404
430
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432
452
408
434
454
412
438
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410
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456
414
440
460
416

FIG_5

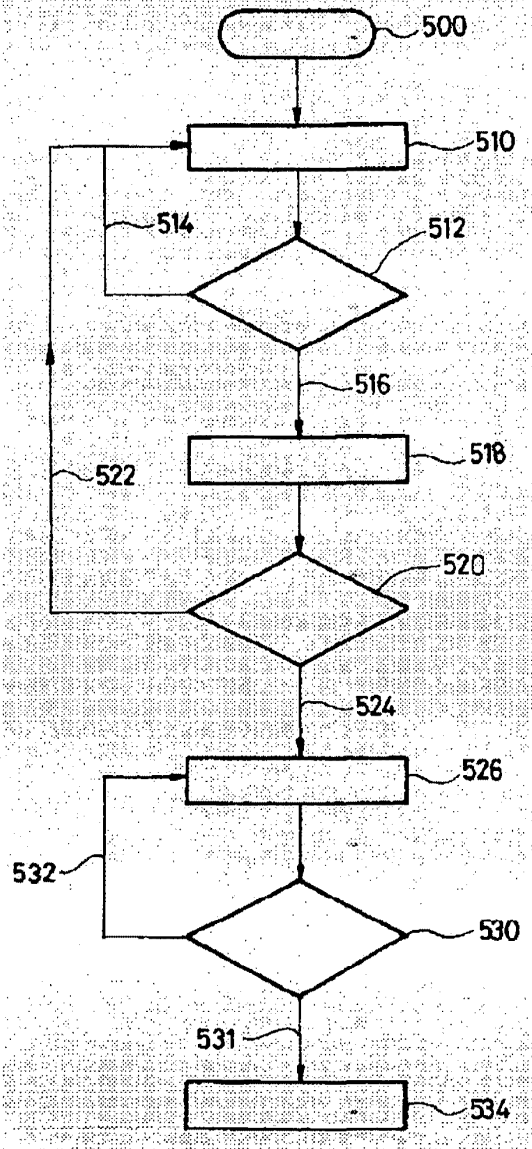


FIG-6

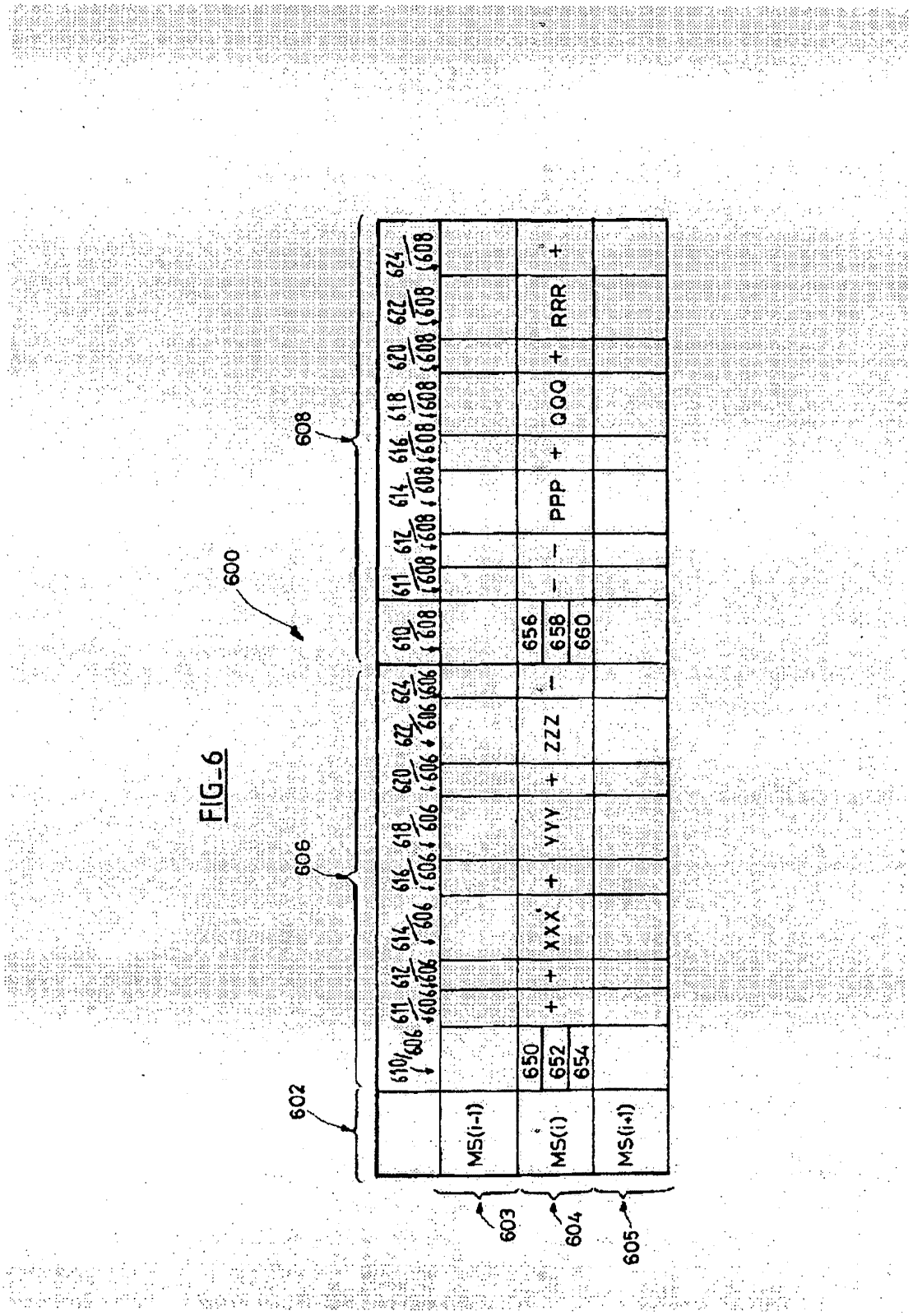
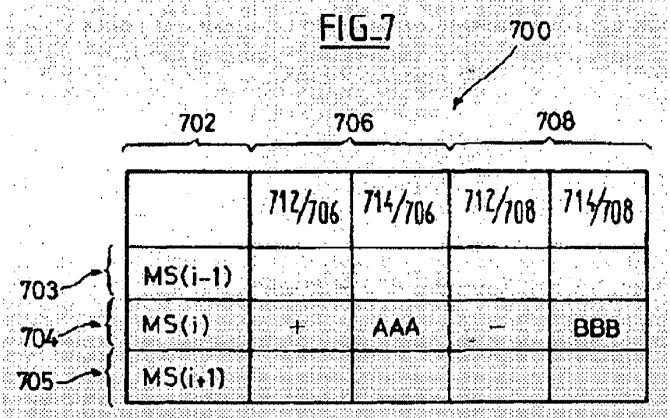

600
602
603
604
605
606
608
MS(i-1)
MS(i)
MS(i+1)
650
652
654
656
658
660
XXX
YYY
ZZZ
PPP
QQQ
RRR

FIG_7


700
702
706
708
712/706
714/706
712/708
714/708
703
MS(i-1)
704
MS(i)
+
AAA
–
BBB
705
MS(i+1)

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2007/052939

A. CLASSIFICATION OF SUBJECT MATTER
INV. H04Q7/38 H04Q7/32

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
H04Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 334 052 B1 (NORDSTRAND INGRID) 25 December 2001 (2001-12-25) abstract figures 2-5 column 1, line 51 - line 64 column 4, line 29 - line 50 column 5, line 17 - line 21 column 5, line 46 - column 6, line 3 column 7, line 10 - column 9, line 3 column 11, line 4 - line 10 column 12, line 10 - line 33 claim 1	1-17
X	WO 01/03372 A (SAMSUNG ELECTRONICS CO., LTD) 11 January 2001 (2001-01-11) abstract page 6, line 20 - page 7, line 11 figures 4-6	1-17

-/--

[X] Further documents are listed in the continuation of Box C. [X] See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier document but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
21 June 2007	29/06/2007

Name and mailing address of the ISA/	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Matt, Stefan

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INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2007/052939

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 826 414 B1 (REYNOLDS PHILIP ET AL) 30 November 2004 (2004-11-30) abstract column 4, line 39 - line 52 column 5, line 23 - line 45 column 6, line 2 - line 47 column 7, line 19 - column 8, line 36 column 10, line 64 - line 66	1-17

Form PCT/ISA/210 (continuation of second sheet) (April 2005)

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/EP2007/052939

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6334052 B1	25-12-2001	AU 741961 B2	13-12-2001
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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44*bis*)

Applicant's or agent's file reference P646PC00	**FOR FURTHER ACTION**	See item 4 below
International application No. PCT/EP2007/052939	International filing date *(day/month/year)* 27 March 2007 (27.03.2007)	Priority date *(day/month/year)* 28 March 2006 (28.03.2006)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant PÉREZ LAFUENTE, Carlos, Alberto		

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 *bis*.1(a).

2. This REPORT consists of a total of 11 sheets, including this cover sheet.

   In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

☒	Box No. I	Basis of the report
☐	Box No. II	Priority
☐	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
☐	Box No. IV	Lack of unity of invention
☒	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
☐	Box No. VI	Certain documents cited
☒	Box No. VII	Certain defects in the international application
☒	Box No. VIII	Certain observations on the international application

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44*bis*.3(c) and 93*bis*.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44*bis* .2).

	Date of issuance of this report 30 September 2008 (30.09.2008)
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer Yolaine Cussac
Facsimile No. +41 22 338 82 70	e-mail: pt05.pct@wipo.int

Form PCT/IB/373 (January 2004)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/EP2007/052939	27.03.2007	28.03.2006

International Patent Classification (IPC) or both national classification and IPC
INV. H04Q7/38 H04Q7/32

Applicant
PEREZ LAFUENTE, Carlos Alberto

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notifed the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:	Date of completion of this opinion	Authorized Officer
European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	see form PCT/ISA/210	Matt, Stefan Telephone No. +49 89 2399-7638

Form (PCT/ISA/237) (Cover Sheet) (April 2005)

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed

   ☐ a translation of the international application into , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1 (b)).

2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

   a. type of material:

      ☐ a sequence listing

      ☐ table(s) related to the sequence listing

   b. format of material:

      ☐ on paper

      ☐ in electronic form

   c. time of filing/furnishing:

      ☐ contained in the international application as filed.

      ☐ filed together with the international application in electronic form.

      ☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	3,4,6,8,9
	No:	Claims	1,2,5,7,10-17
Inventive step (IS)	Yes:	Claims	
	No:	Claims	1-17
Industrial applicability (IA)	Yes:	Claims	1-17
	No:	Claims	

2. Citations and explanations

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Cited Documents

1. Reference is made to the following documents:

D1: US-B-6334052
D2: WO-A-01/03372
D3: US-B-6826414

Re Item V
Reasoned statement under Rule 66.2 (a) (ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. re independent **Claim 1**:

The subject-matter of independent **claim 1 is not novel** in the sense of Article 33 (2) PCT for the following reasons:

Document D1 discloses a method for subscription-based cell selection of a mobile station in idle mode and shows all features of independent claim 1 (references in parentheses applying to this document):

A method for monitoring the presence of a mobile station in at least one special area associated to the mobile station (*D1, Mobile station 201, figure 2*), the method (*D1, abstract*) comprising the following steps

(a) at least one radio communication defining device transmits repeatedly in at least a channel one radio distinctive defining signal that defines the special area by its coverage (*D1, "...cell-related information on a radio control channel that is broadcast from one of the cells in the communication system...", col.4, lines 43-50; col.5, lines 46-52*),

(b) the mobile station observes the channel and process any signal received in order to determine whether or not it is receiving any defining signal (*D1, implicitly disclosed: mobile station, figure 2; "...MS searches all radio Frequency*

channels ...", col. 8, lines 64- col. 9, line 10),

(c) the mobile station processes any defining signal received in order to determine whether or not the defining signal received is a distinctive defining signal that defines the special area (*D1, col.7, lines 22-29; claim 1, col. 13, lines 5-13*),

(d) the mobile station sends an updating signal to a mobile telephone network about its presence in the special area (*D1, "...cell selection/re-selection...camping/registration...", col.11, lines 4-10*),

(e) the mobile telephone network routes the updating signal to special operating means that adapt the value of at least one operating parameter depending on the presence of the mobile station in the special area (*D1, implicitly disclosed: "...it is possible for a GSM network operator... to set special tariffs and allow special services depending on the subscription...", col. 1, lines 55-65*),

the special area is associated to the mobile station by transmitting to the mobile station a checking data (*D1, "...service area information being stored in the SIM...when the ... MS performs network registration...the network will send the information to the MS...", col.12, lines 10-34*), this checking data being used by the mobile station for determining whether or not the defining signal received is a distinctive defining signal that defines, alone or with other distinctive defining signals, the special area associated to the mobile station (*D1, col.7, lines 23-26*) and the same checking data being sent to any mobile station whose presence in this special area is monitored (*D1, implicitly disclosed: "...cell selection/re-selection...camping/registration...", col.11, lines 4-10*).

Please note, the adaptation of operating parameter is considered as implicitly disclosed due to the fact that each location update/re-registration procedure in cellular networks like GSM leads to a modification of data-entries (e.g. LAI) in the HLR (VLR).

D1 thus discloses all features of independent **claim 1** . As a consequence **its subject-matter lacks novelty** in the sense of Article 33(2) PCT.

Even if the applicant would argue that **claim 1** was new, based on minor differences between the claimed method and the known idle mode cell selection procedure as disclosed in D1, the subject matter of **claim 1 would still not involve the required inventive step** (Article 33 PCT) as D1 aims at the same object and discloses the same type of solution as disclosed in claim 1.

It is further noted that also the above-cited documents **D2** (*Home zone service method for mobile telephone subscribers in mobile radio communication system*) and **D3** (*Mobile communications system having a cellular communications network comprising a public network portion and a private network portion using a common radio interface protocol*) aim at the same object and disclose a similar solution as the present invention. **Independent claim 1 does therefore also not appear to involve the required inventive step (Article 33 (3) PCT) vis-à-vis the disclosure of D2 or D3**. Reference is made to the following passages:

D2:

- *abstract*
- *figure 4*
- *figure 6:*
    - *61: STORE HOME ZONE LIST*
    - *62: TRANSMISSION OF SECTOR ID/BTS ID*
    - *63: INSIDE HOME ZONE?*
    - *64: LOCATION REGISTRATION REQUEST*

- *page 6, lines 20 - page 7, line 11*

D3:

- *abstract*
- *figures 5, 6*
- *col. 4, lines 39-42*
- *col. 5, lines 22-45*
- *col. 6, lines 4-34*

2. re independent **Claims 11, 14, 15 and 17**:

The subject matter of **independent system claim 11 (mobile system)** corresponds to the subject-matter of the independent method claim 1 in terms of structural features.

The subject-matter of **independent apparatus claims 14 (server), 15 (radio communication defining device)** and **17 (mobile station)** corresponds to the respective process-steps according to claim 1 performed by the affiliated device (server, radio communication defining device, mobile station).

The disclosed passages of D1-D3 as indicated in the previous subsection as well as the given arguments are also applicable for claims 11, 14, 15 and 17.

As a consequence the subject-matter of **claims 11, 14, 15 and 17** is **not new in the sense of Article 33(2) PCT and does not involve an inventive step in the sense of Article 33(3) PCT.**

3. re dependent **Claims 2-10, 12, 13, 16**:

Dependent **claims 2-10, 12, 13, 16** do at **least not appear to add something of inventive significance** in the sense of Article 33(3) PCT to those independent claims to which they are appended, as the additional features introduced by said claims refer only to minor implementing details which are disclosed or obviously derivable from the cited documents D1-D3 or fall within the general knowledge of a person skilled in the art. In particular:

Claim 2: A deactivation signal is implicitly disclosed in D1 (*col. 12, lines 26-30*), due to the fact, that a home zone list update message comprising new preferred area(s) is equivalent with a home zone list update message whereas the original preferred areas are not longer considered.

Claim 3: The acknowledgment of such an update message is considered as a minor implementation detail.

Claim 4: The application of the disclosed solution of D1 to a WLAN environment (i.e. comprising an access point rather than a base station, sending a beacon comprising the SSID) is an obvious design procedure for the skilled person as both radio access network architectures are very similar.

Claims 5, 6: The usage of a base station as radio communication defining device is disclosed in D1-D3. The usage of a certain identifier which uniquely identifies a well-defined service area (LAI, cell-ID, NW-ID etc.) is considered as a minor implementation detail. The skilled person would select the most appropriate identifier according to the extend of the service area which is described by that identifier.

Claim 7: The provision of special operating means for updating parameters describing the linking of a special area to a mobile station in a database can be considered as implicitly disclosed in D1-D3 (e.g. in the HLR, which is responsible for storing subscriber-related data).

Claims 8: The usage of flags for enabling/disabling a service/tariff is considered as a minor implementation detail. Furthermore it corresponds to a standard procedure for the skilled person.

Claim 9: It is clear for the skilled person, that admission control of a requested service is performed in the core-network. The application of such an admission control to a dedicated service like multimedia content is an obvious design procedure.

Claim 10: The transmission of checking data is inter-alia disclosed in D1 (*col.12, lines 10-29*).

Re Item VII

Certain defects in the international application (form and content)

1. Contrary to the requirements of Rule 5.1.(a) (ii) PCT, the relevant background art disclosed in document D1 noted above is not mentioned in the description, nor is this document identified therein.

Re Item VIII

Certain observations on the international application with respect to clarity (Article 6 PCT):

1. re **Claim 5:**

   Claim 5 does not meet the requirements of Article 6 PCT in that the matter for which protection is sought is not defined. Claim 5 defines:

   "...***reliable*** *information confirming that the wireless device is effectively located...*"

   This claim attempts to define the subject-matter in terms of the result to be achieved. The current definition leaves open how the effect of **reliability** is achieved. In the following examination, this term is considered as a relative term with no particular meaning.

2. re **Claim 12:**

   Claim 12 is unclear, Article 6 PCT, because the definition

   "*...monitoring means for monitoring the correct* ***location of ... the special area****...*"

   is vague and unclear and leaves the reader in doubt as to the meaning of the technical feature to which it refers thereby rendering the definition of the subject-matter of said claims unclear.

3. re **Claim 14:**

   Independent claim 14 is unclear, Article 6 PCT, because the definition

   " ***...at least some of*** *the special operating means...*"

   is vague and unclear and leaves the reader in doubt as to the meaning of the technical feature to which it refers thereby rendering the definition of the subject-

matter of said claims unclear.

4. re **Claim 15:**

Independent claim 15 is unclear, Article 6 PCT, because the definition of that claim leaves open which process steps according to claim 1 are actually performed by that radio communication defining device.

5. In case of submitting amendments - e.g. in the PCT Chapter II or in the regional phase - the following remarks should be noted:

5.1 The opening part of the description should be brought into agreement with the wording thereof (Rule 5.1 (a) (iii) PCT).

5.2 While filing amended claims the applicant is requested to take into consideration comments comprised in all section of this communication. The applicant is requested to clearly identify the amendments carried out, no matter whether they concern amendments by addition, replacement or deletion, and to indicate the passages of the application as filed on which these amendments are based (Rule 66.8 (a) PCT). This is necessary to ensure that no subject-matter has been added which extends beyond the content of the application as originally filed, Article 34 (2) (b) PCT, rendering all amendments made valid.

5.3 The applicant's attention is drawn to the fact that, as a consequence of Rule 66.8 (a) PCT the examiner is not permitted to carry out any amendments under the PCT procedure, however minor these may be.

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43*bis*.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/EP2007/052939	27.03.2007	28.03.2006

International Patent Classification (IPC) or both national classification and IPC
INV. H04Q7/38 H04Q7/32

Applicant
PEREZ LAFUENTE, Carlos Alberto

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notifed the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:	Date of completion of this opinion	Authorized Officer
European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	see form PCT/ISA/210	Matt, Stefan Telephone No. +49 89 2399-7638

Form (PCT/ISA/237) (Cover Sheet) (April 2005)

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed

   ☐ a translation of the international application into , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1 (b)).

2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

   a. type of material:

      ☐ a sequence listing

      ☐ table(s) related to the sequence listing

   b. format of material:

      ☐ on paper

      ☐ in electronic form

   c. time of filing/furnishing:

      ☐ contained in the international application as filed.

      ☐ filed together with the international application in electronic form.

      ☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	3,4,6,8,9
	No:	Claims	1,2,5,7,10-17
Inventive step (IS)	Yes:	Claims	
	No:	Claims	1-17
Industrial applicability (IA)	Yes:	Claims	1-17
	No:	Claims	

2. Citations and explanations

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Cited Documents

1. Reference is made to the following documents:

   D1: US-B-6334052
   D2: WO-A-01/03372
   D3: US-B-6826414

Re Item V
Reasoned statement under Rule 66.2 (a) (ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. re independent **Claim 1**:

   The subject-matter of independent **claim 1 is not novel** in the sense of Article 33 (2) PCT for the following reasons:

   Document D1 discloses a method for subscription-based cell selection of a mobile station in idle mode and shows all features of independent claim 1 (references in parentheses applying to this document):

   A method for monitoring the presence of a mobile station in at least one special area associated to the mobile station (*D1, Mobile station 201, figure 2*), the method (*D1, abstract*) comprising the following steps

   (a) at least one radio communication defining device transmits repeatedly in at least a channel one radio distinctive defining signal that defines the special area by its coverage (*D1, "...cell-related information on a radio control channel that is broadcast from one of the cells in the communication system...", col.4, lines 43-50; col.5, lines 46-52*),

   (b) the mobile station observes the channel and process any signal received in order to determine whether or not it is receiving any defining signal (*D1, implicitly disclosed: mobile station, figure 2; "...MS searches all radio Frequency*

channels ...", col. 8, lines 64- col. 9, line 10),

(c) the mobile station processes any defining signal received in order to determine whether or not the defining signal received is a distinctive defining signal that defines the special area (*D1, col.7, lines 22-29; claim 1, col. 13, lines 5-13*),

(d) the mobile station sends an updating signal to a mobile telephone network about its presence in the special area (*D1, "...cell selection/re-selection...camping/registration...", col.11, lines 4-10*),

(e) the mobile telephone network routes the updating signal to special operating means that adapt the value of at least one operating parameter depending on the presence of the mobile station in the special area (*D1, implicitly disclosed: "...it is possible for a GSM network operator... to set special tariffs and allow special services depending on the subscription...", col. 1, lines 55-65*),

the special area is associated to the mobile station by transmitting to the mobile station a checking data (*D1, "...service area information being stored in the SIM...when the ... MS performs network registration...the network will send the information to the MS...", col.12, lines 10-34*), this checking data being used by the mobile station for determining whether or not the defining signal received is a distinctive defining signal that defines, alone or with other distinctive defining signals, the special area associated to the mobile station (*D1, col.7, lines 23-26*) and the same checking data being sent to any mobile station whose presence in this special area is monitored (*D1, implicitly disclosed: "...cell selection/re-selection...camping/registration...", col.11, lines 4-10*).

Please note, the adaptation of operating parameter is considered as implicitly disclosed due to the fact that each location update/re-registration procedure in cellular networks like GSM leads to a modification of data-entries (e.g. LAI) in the HLR (VLR).

D1 thus discloses all features of independent **claim 1** . As a consequence **its subject-matter lacks novelty** in the sense of Article 33(2) PCT.

Even if the applicant would argue that **claim 1** was new, based on minor differences between the claimed method and the known idle mode cell selection procedure as disclosed in D1, the subject matter of **claim 1 would still not involve the required inventive step** (Article 33 PCT) as D1 aims at the same object and discloses the same type of solution as disclosed in claim 1.

It is further noted that also the above-cited documents **D2** (*Home zone service method for mobile telephone subscribers in mobile radio communication system*) and **D3** (*Mobile communications system having a cellular communications network comprising a public network portion and a private network portion using a common radio interface protocol*) aim at the same object and disclose a similar solution as the present invention. **Independent claim 1 does therefore also not appear to involve the required inventive step (Article 33 (3) PCT) vis-à-vis the disclosure of D2 or D3**. Reference is made to the following passages:

D2:
- *abstract*
- *figure 4*
- *figure 6:*
    - *61: STORE HOME ZONE LIST*
    - *62: TRANSMISSION OF SECTOR ID/BTS ID*
    - *63: INSIDE HOME ZONE?*
    - *64: LOCATION REGISTRATION REQUEST*

- *page 6, lines 20 - page 7, line 11*

D3:
- *abstract*
- *figures 5, 6*
- *col. 4, lines 39-42*
- *col. 5, lines 22-45*
- *col. 6, lines 4-34*

2. re independent **Claims 11, 14, 15 and 17**:

The subject matter of **independent system claim 11 (mobile system)** corresponds to the subject-matter of the independent method claim 1 in terms of structural features.

The subject-matter of **independent apparatus claims 14 (server), 15 (radio communication defining device)** and **17 (mobile station)** corresponds to the respective process-steps according to claim 1 performed by the affiliated device (server, radio communication defining device, mobile station).

The disclosed passages of D1-D3 as indicated in the previous subsection as well as the given arguments are also applicable for claims 11, 14, 15 and 17.

As a consequence the subject-matter of **claims 11, 14, 15 and 17** is **not new in the sense of Article 33(2) PCT and does not involve an inventive step in the sense of Article 33(3) PCT.**

3. re dependent **Claims 2-10, 12, 13, 16**:

Dependent **claims 2-10, 12, 13, 16** do at **least not appear to add something of inventive significance** in the sense of Article 33(3) PCT to those independent claims to which they are appended, as the additional features introduced by said claims refer only to minor implementing details which are disclosed or obviously derivable from the cited documents D1-D3 or fall within the general knowledge of a person skilled in the art. In particular:

Claim 2: A deactivation signal is implicitly disclosed in D1 (*col. 12, lines 26-30*), due to the fact, that a home zone list update message comprising new preferred area(s) is equivalent with a home zone list update message whereas the original preferred areas are not longer considered.

Claim 3: The acknowledgment of such an update message is considered as a minor implementation detail.

Claim 4: The application of the disclosed solution of D1 to a WLAN environment (i.e. comprising an access point rather than a base station, sending a beacon comprising the SSID) is an obvious design procedure for the skilled person as both radio access network architectures are very similar.

Claims 5, 6: The usage of a base station as radio communication defining device is disclosed in D1-D3. The usage of a certain identifier which uniquely identifies a well-defined service area (LAI, cell-ID, NW-ID etc.) is considered as a minor implementation detail. The skilled person would select the most appropriate identifier according to the extend of the service area which is described by that identifier.

Claim 7: The provision of special operating means for updating parameters describing the linking of a special area to a mobile station in a database can be considered as implicitly disclosed in D1-D3 (e.g. in the HLR, which is responsible for storing subscriber-related data).

Claims 8: The usage of flags for enabling/disabling a service/tariff is considered as a minor implementation detail. Furthermore it corresponds to a standard procedure for the skilled person.

Claim 9: It is clear for the skilled person, that admission control of a requested service is performed in the core-network. The application of such an admission control to a dedicated service like multimedia content is an obvious design procedure.

Claim 10: The transmission of checking data is inter-alia disclosed in D1 (*col.12, lines 10-29*).

Re Item VII

Certain defects in the international application (form and content)

1. Contrary to the requirements of Rule 5.1.(a) (ii) PCT, the relevant background art disclosed in document D1 noted above is not mentioned in the description, nor is this document identified therein.

Re Item VIII

Certain observations on the international application with respect to clarity (Article 6 PCT):

1. re **Claim 5:**

   Claim 5 does not meet the requirements of Article 6 PCT in that the matter for which protection is sought is not defined. Claim 5 defines:

   "*...**reliable** information confirming that the wireless device is effectively located...*"

   This claim attempts to define the subject-matter in terms of the result to be achieved. The current definition leaves open how the effect of **reliability** is achieved. In the following examination, this term is considered as a relative term with no particular meaning.

2. re **Claim 12:**

   Claim 12 is unclear, Article 6 PCT, because the definition

   "*...monitoring means for monitoring the correct **location of ... the special area**...*"

   is vague and unclear and leaves the reader in doubt as to the meaning of the technical feature to which it refers thereby rendering the definition of the subject-matter of said claims unclear.

3. re **Claim 14:**

   Independent claim 14 is unclear, Article 6 PCT, because the definition

   " *...**at least some of** the special operating means...*"

   is vague and unclear and leaves the reader in doubt as to the meaning of the technical feature to which it refers thereby rendering the definition of the subject-

matter of said claims unclear.

4. re **Claim 15:**

Independent claim 15 is unclear, Article 6 PCT, because the definition of that claim leaves open which process steps according to claim 1 are actually performed by that radio communication defining device.

5. In case of submitting amendments - e.g. in the PCT Chapter II or in the regional phase - the following remarks should be noted:

5.1 The opening part of the description should be brought into agreement with the wording thereof (Rule 5.1 (a) (iii) PCT).

5.2 While filing amended claims the applicant is requested to take into consideration comments comprised in all section of this communication. The applicant is requested to clearly identify the amendments carried out, no matter whether they concern amendments by addition, replacement or deletion, and to indicate the passages of the application as filed on which these amendments are based (Rule 66.8 (a) PCT). This is necessary to ensure that no subject-matter has been added which extends beyond the content of the application as originally filed, Article 34 (2) (b) PCT, rendering all amendments made valid.

5.3 The applicant's attention is drawn to the fact that, as a consequence of Rule 66.8 (a) PCT the examiner is not permitted to carry out any amendments under the PCT procedure, however minor these may be.

Document code: WFEE

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	PÉREZ LAFUENTE, Carlos Alberto
U.S. Serial No.:	To Be Assigned
Filed:	concurrently
National Stage of International Application:	PCT/EP2007/052939
International Filing Date:	27 March 2007
For:	METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECIAL AREA

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

Applicant respectfully submits this Information Disclosure Statement pursuant to 37 C.F.R. §§ 1.97 and 1.98 in order to comply with the duty of disclosure under 37 C.F.R. § 1.56. The references are listed on the attached modified PTO Form No. 1449.

Applicant respectfully requests that the information submitted herewith be expressly considered during the prosecution of this application and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom. Applicant further requests that a copy of the PTO Form No. 1449, appropriately initialed by the Examiner, be returned to Applicants' attorney.

This Information Disclosure Statement is being submitted concurrently with the above-identified applicaiton. Therefore, no fee is due. However, should any fees be due, the Director is authorized to charge Deposit Account No. 50-0540 for such fees.

Respectfully submitted,

Dated: September 26, 2008

/Aaron Haleva/

Aaron Haleva, Reg. No. 44,733
Kramer Levin Naftalis & Frankel LLP
1177 Avenue of the Americas
New York, N.Y. 10036
(212) 715-9100 (telephone)
(212) 715-8000 (facsimile)

Customer No. 31013

FORM PTO-i39O U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFiCE **TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EQ/US) CONCERNING A FILING UNDER 35 U.S.C. 371**		ATTORNEY 'S DOCKET NUMBER 062403/00002 U.S. APPLICATION NO. (if known, see 37 CFR 1.5)
INTERNATIONAL APPLICATION NO. PCT/EP2007/052939	INTERNATIONAL FILING DATE 27 March 2007	PRIORITY DATE CLAIMED 28 March 2006
TITLE OF INVENTION METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECIAL AREA		
APPLICANT(S) FOR DO/EO/US PEREZ LAFUENTE, Carlos Alberto		

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

☒ This application is the national phase filing of corresponding international application number PCT/EP2007/052939 filed on March 27, 2007, which claims priority to and benefit of the European application no. 06111804.8 filed March 28, 2006.

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.

2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.

3. ☒ This is an express request to begin national examination procedures *(35* U.S.C. 371(f)).

4. ☒ The US has been elected by the expiration of 19 months from the priority date (Article 31).

5. ☒ A copy of the International Application *(35* U.S.C. 371 (c)(2))
   a. ☐ is attached hereto (required only if not communicated by the International Bureau).
   b. ☒ has been communicated by the International Bureau.
   c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).

6. ☐ An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).
   a. ☐ is attached hereto.
   b. ☐ has been previously submitted under 35 U.S.C. 1 54(d)(4).

7. ☐ Amendments to the claims of the International Application under PCT Article 19 *(35* U.S.C. 371(c)(3))
   a. ☐ are attached hereto (required only if not communicated by the International Bureau).
   b. ☐ have been communicated by the International Bureau.
   c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
   d. ☐ have not been made and will not be made.

8. ☐ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371 (c)(3)).

9. ☐ An unexecuted oath or declaration of the inventor(s) *(35* U.S.C. 371(c)(4)).

10. ☐ An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. *371(c)(5)).*

Items 11 to 20 below concern document(s) or information included:

11. ☒ An Information Disclosure Statement under 37 CFR 1.97 and 1.98; PTO 1449 and references cited therein.

12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.

13. ☒ A FIRST preliminary amendment.

14. ☐ A SECOND or SUBSEQUENT preliminary amendment.

15. ☐ A substitute specification.

16. ☐ A change of power of attorney and/or address letter.

17. ☐ A paper and computer-readable form of the sequence listing

18. A second copy of the published international application under 35 U.S.C. 1 54(d)(4).

19. ☐ A second copy of the English language translation of the international application under 35 U.S.C. 1 *54(d)(4).*

20. ☒ Other items or information: Application Data Sheet

KL3 2679748.1

U.S. APPLICATION NO. (if known, see 37 CFR 1.5)	INTERNATIONAL APPLICATION NO. PCT/EP2007/052939	ATTORNEY'S DOCKET NUMBER 062403/00002

The following fees are submitted:	CALCULATIONS	PTO USE ONLY
21. ☒ Basic national fee (37 CFR 1.492(a))....**$310.00**	$155.00	
22. ☒ Examination fee (37 CFR 1.492(c)) If the written opinion prepared by ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4)....**$0.00** All other situations....**$210.00**	$105.00	
23. ☒ Search fee (37 CFR 1.492(b)) If the written opinion of the ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4)....**$0.00** Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority....**$100.00** International Search Report prepared by an ISA other than the US and provided to the Office or previously communicated to the US by the IB....**$410.00** All other situations....**$500.00**	$255.00	
TOTAL OF 21, 22 and 23 =	**$515.00**	
☐ Additional Fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing or computer program listing filed in an electronic medium). The fee is $250 for each additional 50 sheets of paper or fraction thereof.		

Total Sheets	Extra Sheets	Number of Each additional 50 or fraction thereof (round **up** to a whole number)	RATE		
-100 = 0	0/50 =0	N/A	x **$250.00**	$	
Surcharge of **$130.00** for furnishing any of the search fee, examination fee or the oath or declaration after the date of commencement of the national stage (37 CFR 1.492(h).				**$**	

CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE		
Total claims	17-20	0	x **$50.00**	**$0.00**	
Independent claims	2-3	0	x **$200.00**	$	
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ **$360.00**	$	
TOTAL OF ABOVE CALCULATIONS =				**$515.00**	
☐ Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by ½					
SUBTOTAL =				**$515.00**	
Processing fee of **$130.00** for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(f)). +				$	
TOTAL NATIONAL FEE =				**$515.00**	
Fee for recording the enclosed assignment (37 **CFR 1.21(h)). The** assignment must be accompanied by an appropriate cover sheet (37 CFR **3.28, 3.31). $40.00 per property** +					
TOTAL FEES ENCLOSED =				**$515.00**	
				Amount to be refunded:	$
				charged:	$

a. ☐ A check in the amount of **$ .00** is enclosed to cover the above fees.

b. ☒ Please charge Deposit Account No. **50-0540** in the amount of **$515.00** to cover the above fees.

c. ☒ The Director is hereby authorized to charge any additional fees which may be required under 37 C.F.R. 1.495(b) or any other applicable provision in order to avoid abandonment, or credit any overpayment to Deposit Account No**. 50-0540** .

SEND ALL CORRESPONDENCE TO:

Customer No. 31013

/Aaron Haleva/
SIGNATURE
Charles Achkar, Reg. No. 44,733

KL3 2679748.1

PTO/SB/14 (08-05)
Approved for use through 07/31/2006. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	062403/00002
	Application Number	
Title of Invention	METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECIAL AREA	

The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76.
This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.

Secrecy Order 37 CFR 5.2

☐ Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)

Applicant Information:

Applicant 1 Remove

Applicant Authority ◉ Inventor ○ Legal Representative under 35 U.S.C. 117 ○ Party of Interest under 35 U.S.C. 118

Prefix	Given Name	Middle Name	Family Name	Suffix
	Carlos	Alberto	PÉREZ LAFUENTE	

Residence Information (Select One) ○ US Residency ◉ Non US Residency ○ Active US Military Service

City	Madrid	Country Of Residence[i]	ES
Citizenship under 37 CFR 1.41(b)[i]	ES		

Mailing Address of Applicant:

Address 1	C/ Julio Palacios, 13, Esc. Izq. 8º E		
Address 2			
City	Madrid	State/Province	
Postal Code	28029	Country[i]	ES

All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the **Add** button. Add

Correspondence Information:

Enter either Customer Number or complete the Correspondence Information section below.
For further information see 37 CFR 1.33(a).

☐ **An Address is being provided for the correspondence Information of this application.**

Customer Number	31013		
Email Address		Add Email	Remove Email

Application Information:

Title of the Invention	METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECIAL AREA		
Attorney Docket Number	062403/00002	Small Entity Status Claimed	☐
Application Type	Nonprovisional		
Subject Matter	Utility		
Suggested Class (if any)		Sub Class (if any)	
Suggested Technology Center (if any)			
Total Number of Drawing Sheets (if any)	7	Suggested Figure for Publication (if any)	

PTO/SB/14 (08-05)
Approved for use through 07/31/2006. OMB 0651-0032
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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	062403/00002
	Application Number	
Title of Invention	METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECIAL AREA	

Publication Information:
☐ Request Early Publication (Fee required at time of Request 37 CFR 1.219)
☐ Request Not to Publish. I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application has not been and will not be the subject of an application filed in another country, or under a multilateral agreement, that requires publication at eighteen months after filing.

Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32).
Enter either Customer Number or complete the Representative Name section below. If both sections are completed the Customer Number will be used for the Representative Information during processing.

Please Select One:	◉ Customer Number	○ US Patent Practitioner	○ US Representative (37 CFR 11.9)
Customer Number	31013		

Domestic Priority Information:

This section allows for the applicant to claim benefit under 35 U.S.C. 119(e), 120, 121, or 365(c). Providing this information in the application data sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78(a)(2) or CFR 1.78(a)(4), and need not otherwise be made part of the specification.

Prior Application Status	Pending		Remove
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
	a 371 of international	PCT/EP2007/052939	2007-03-27

Additional Domestic Priority Data may be generated within this form by selecting the **Add** button. Add

Foreign Priority Information:

This section allows for the applicant to claim benefit of foreign priority and to identify any prior foreign application for which priority is not claimed. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55(a).

			Remove
Application Number	Country [i]	Parent Filing Date (YYYY-MM-DD)	Priority Claimed
PCT/EP2007/052939	WO	2007-03-27	◉ Yes ○ No
			Remove
Application Number	Country [i]	Parent Filing Date (YYYY-MM-DD)	Priority Claimed
06111804.8	EP	2006-03-28	◉ Yes ○ No

Additional Foreign Priority Data may be generated within this form by selecting the **Add** button. Add

PTO/SB/14 (08-05)
Approved for use through 07/31/2006. OMB 0651-0032
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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	062403/00002
	Application Number	
Title of Invention	METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECIAL AREA	

Assignee Information:

Providing this information in the application data sheet does not substitute for compliance with any requirement of part 3 of Title 37 of the CFR to have an assignment recorded in the Office.

Assignee 1 Remove

If the Assignee is an Organization check here. ☐

Prefix	**Given Name**	Middle Name	**Family Name**	Suffix

Mailing Address Information:

Address 1			
Address 2			
City		**State/Province**	
Country [i]	US	Postal Code	
Phone Number		Fax Number	
Email Address			

Additional Assignee Data may be generated within this form by selecting the **Add** button. Add

Signature:

A signature of the applicant or representative is required in accordance with 37 CFR 1.33 and 10.18. Please see 37 CFR 1.4(d) for the form of the signature.

Signature	/Aaron Haleva/			Date (YYYY-MM-DD)	2008-09-26
First Name	Aaron	Last Name	Haleva	Registration Number	44733

This collection of information is required by 37 CFR 1.76. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	PÉREZ LAFUENTE, Carlos Alberto
U.S. Serial No.:	To Be Assigned
Filed:	concurrently
National Stage of International Application:	PCT/EP2007/052939
International Filing Date:	27 March 2007
For:	METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECIAL AREA

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PRELIMINARY AMENDMENT

Sir:

Prior to the issuance of a first office action please amend the above-identified application as follows:

Amendments to the Specification begin on page 2 of this paper.

Amendments to the Claims begin on page 3 of this paper.

Remarks begin on page 8 of this paper.

AMENDMENTS TO THE SPECIFICATION

On page 1, after the title, please add the following new cross-referencing title and paragraph:

CROSS REFERENCE TO RELATED APPLICATIONS

This application is the United States national phase filing of the corresponding international application number PCT/EP2007/052939 filed on March 27, 2007, which claims priority to and benefit of the European patent application no. 06111804.8 filed March 28, 2006, each of which is hereby incorporated herein by reference.

IN THE CLAIMS:

1. (Currently Amended) A method for monitoring the presence of a mobile station ~~(100,200,300)~~ in at least one special area ~~(104, 203, 203b, 304)~~ associated to the mobile station, the method comprising the following steps:

(a) at least one radio communication defining device ~~(105, 212, 212b, 305)~~ transmits repeatedly in at least a channel one radio distinctive defining signal ~~(214, 214b)~~ that defines the special area by its coverage,

(b) ~~(512)~~ the mobile station observes the channel and process any signal received in order to determine whether or not it is receiving any defining signal,

(c) the mobile station processes any defining signal received in order to determine whether or not the defining signal received is a distinctive defining signal that defines the special area,

(d) ~~(526)~~ the mobile station sends an updating signal to a mobile telephone network about its presence in the special area,

(e) the mobile telephone network routes the updating signal to special operating means ~~(600,700)~~ that adapt the value of at least one operating parameter ~~(612/606,612/608,712/706,712/708)~~ depending on the presence of the mobile station in the special area, the said method is characterized in that the special area is associated to the mobile station by transmitting to the mobile station a checking data ~~(408,454)~~, this checking data being used ~~(518)~~ by the mobile station for determining whether ~~(524)~~ or not ~~(522)~~ the defining signal received is a distinctive defining signal that defines, alone or with other distinctive defining signals, the special area associated to the mobile station and the same checking data being sent to any mobile station whose presence in this special area is monitored.

2. (Currently Amended) A method according to claim 1, characterized in that the special area ~~(104,203,203b,304)~~ is deactivated ~~(440)~~ for the mobile station by the mobile telephone network sending a deactivation signal to the mobile station ~~(100,200,300)~~ to stop the mobile station from recognizing a defining signal that defines that special area as a distinctive one.

3. (Currently Amended) A method according to claim 1 ~~or 2~~, characterized in that the special operating means acknowledge ~~(531)~~ the reception of the updating signal and transmit an acknowledgement signal to the mobile station.

4. (Currently Amended) A method according to claim 1 ~~, 2 or 3~~, characterized in that at least one radio communication defining device is a wireless device ~~(212,212b)~~ whose radio distinctive defining signal that defines the special area is a distinctive wireless signal ~~(214,214b)~~ transmitted by the wireless device in a frequency range outside the frequency range allocated for the mobile telephone network, the said distinctive wireless signal contains wireless device identification data and reliable information confirming that the wireless device is effectively located into a predetermined environment ~~(204,230)~~, the checking data associated to this wireless device ~~(212,212b)~~ includes this wireless device identification data.

5. (Currently Amended) A method according to claim 1, ~~any of claims 1 to 4,~~ characterized in that at least one radio communication defining device is a base station ~~(105)~~ whose radio distinctive defining signal that defines the special area ~~(104)~~ is a distinctive signal comprising a special mobile telephone network identification code, the checking data associated to this base station ~~(105) includes~~ this special mobile telephone network identification code.

6. (Currently Amended) A method according to claim 1, ~~any of claims 1 to 4,~~ characterized in that at least one radio communication defining device is a base station ~~(305) whose~~ radio distinctive defining signal that defines the special area ~~(304) is~~ a distinctive base station identity

signal comprising an identification code of the base station, the checking data associated to this base station includes this base station identification code.

7. (Currently Amended) A method according to claim 1, ~~any preceding claim,~~ characterized in that the special operating means store a parameters database ~~(600,700)~~ linking the special area ~~(104,203,203b,304)~~ to the mobile station ~~(100,200,300)~~ and to a set of at least the operating parameter ~~(612/606,612/608,712/706,712/708)~~; and the special operating means adapt the value of at least an operational parameter of this set when they receive an updating signal signalling that the mobile station exits or enters the special area.

8. (Currently Amended) A method according to claim 1, ~~any preceding claim,~~ characterized in that the operating parameter is a tariff ~~(616/606, 616/608)~~ flag or a service flag ~~(620/606,624/606,620/608,624/608)~~ that enables or disables a special tariff ('XXXVPPP') or a service ('YYY','ZZZ','QQQ','RRR') for the mobile station ~~(100,200,300)~~.

9. (Currently Amended) A method according to claim 1, ~~any preceding claim,~~ characterized in that the updating signal includes a request to access to a service ('AAA', 'BBB') or to a multimedia content ('AAA', 'BBB') and the mobile telephone network routes this request to a part of the special operating means ~~(700)~~ that allow or forbid the provision of this service or multimedia content depending on whether or not the mobile station ~~(100,200,300)~~ is into the special area ~~(104,203,203b,304)~~.

10. (Currently Amended) A method according to claim 1, ~~any preceding claim,~~ characterized in that the transmission of the checking data to the mobile station ~~(100,200,300)~~ is done via the mobile telephone network or via a signal of a at least one radio device or via a person introducing the checking data in the mobile station.

11. (Currently Amended) A mobile system for monitoring the presence of a mobile station ~~(100,200,300)~~ in a special area ~~(104,203,203b,304)~~ defined for this mobile station, said system comprising:

- checking means for detecting the presence of the mobile station in the special area associated to this mobile station, said checking means including :

  ■ At least one radio communication defining device ~~(105, 212, 212b, 305)~~ transmitting repeatedly in at least a channel a radio distinctive defining signal ~~(214, 214b)~~ that defines the special area,

  ■ in the mobile station, observing means for observing the channel and processing means for processing any signal received in the channel in order to determine whether or not the signal received is a defining signal and, if the signal received is a defining signal, whether or not the signal received is a distinctive defining signal that defines the special area,

- transmission means for sending an updating signal regarding the presence of the mobile station in the special area from the processing means to special operating means included at least partly in data processing means of the mobile telephone network,

- the special operating means for adapting the value of at least one operating parameter ~~(612/606,612/608,712/706,712/708)~~ depending on the presence of the mobile station in the special area, characterized in that the said mobile system comprises storing means for storing a checking data in the mobile station, the processing means include means for using this checking data for determining whether or not the defining signal received is a distinctive defining signal that defines, alone or with other distinctive defining signals, the special area and the same checking data is sent to any mobile station whose presence in this special area is monitored.

12. (Currently Amended) A mobile system according to claim 11, characterized in that the mobile system comprises special area location monitoring means ~~(205,212)~~ for monitoring the correct location of at least a part of the special area ~~(212).~~

13. (Currently Amended) A mobile system according to claim 11 ~~or 12~~, characterized in that the mobile system carries out a method according to claim 1 ~~any one of claims 1 to 10~~.

14. (Currently Amended) A server, characterized in that it contains at least some of the special operating means included in the mobile system according to claim 1 ~~any one of claims 1 to 13~~.

15. (Currently Amended) A radio communication defining device ~~(105,212,212b,305)~~, characterized in that it carries out a method according to claim 1 ~~any one of claims 1 to 10~~.

16. (Currently Amended) A radio communication defining device according to claim 15, characterized in that the said radio communication defining device is a wireless device ~~(212,212b)~~ and it contains means for transmitting a distinctive wireless signal ~~(214,214b)~~ that defines the special area ~~(203,203b)~~ and means for obtaining reliable information indicating whether or not the said wireless device is located into a predetermined environment ~~(204,230).~~

17. (Currently Amended) A mobile station, characterized in that this mobile station is suitable to carry out a method according to claim 1 ~~any one of claims 1 to 10~~.

REMARKS

The present application is the United States national stage filing of corresponding international application number PCT/EP2007/052939 filed on March 27, 2007, which claims priority to and benefit of the European patent application no. 06111804.8 filed March 28, 2006. The Specification has herein been amended to recite the priority information. The claims have been amended to remove their multiple dependencies and to conform to the US patent practice. No new matter has been added.

No fee is believed to be due with the filing of this Preliminary Amendment. However, if any fee is due, the Director is hereby authorized to charge any additional deficiencies or credit any overpayments to Deposit Account No. 50-0540.

Respectfully submitted,

Dated: September 26, 2008

/Aaron Haleva/

Aaron Haleva, Reg. No. 44,733
Kramer Levin Naftalis & Frankel LLP
1177 Avenue of the Americas
New York, N.Y. 10036
(212) 715-9100 (telephone)
(212) 715-8000 (facsimile)

PTO/SB/08a (08-08)
Approved for use through 08/31/2008. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (**Not for submission under 37 CFR 1.99)**		
	Application Number	
	Filing Date	
	First Named Inventor	PÉREZ LAFUENTE, Carlos Alberto
	Art Unit	
	Examiner Name	
	Attorney Docket Number	062403-00002

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	6334052	B1	2001-12-25	Nordstrand	
	2	6785536	B1	2004-08-31	Lee et al.	
	3	6826414	B1	2004-11-30	Reynolds, et al.	

If you wish to add additional U.S. Patent citation information please click the Add button. Add

U.S.PATENT APPLICATION PUBLICATIONS Remove

Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1					

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FOREIGN PATENT DOCUMENTS Remove

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] ¡	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1							☐

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (**Not for submission under 37 CFR 1.99)**		
	Application Number	
	Filing Date	
	First Named Inventor	PÉREZ LAFUENTE, Carlos Alberto
	Art Unit	
	Examiner Name	
	Attorney Docket Number	062403-00002

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Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1		☐
If you wish to add additional non-patent literature document citation information please click the Add button	Add		

EXAMINER SIGNATURE			
Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (**Not for submission under 37 CFR 1.99)**		
	Application Number	
	Filing Date	
	First Named Inventor	PÉREZ LAFUENTE, Carlos Alberto
	Art Unit	
	Examiner Name	
	Attorney Docket Number	062403-00002

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☐ See attached certification statement.

☐ Fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ None

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Aaron Haleva/	Date (YYYY-MM-DD)	2008-09-26
Name/Print	Aaron Haleva	Registration Number	44733

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

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7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

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Electronic Patent Application Fee Transmittal

Application Number:	
Filing Date:	
Title of Invention:	METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECIAL AREA
First Named Inventor/Applicant Name:	Carlos Alberto PÉREZ LAFUENTE
Filer:	Alexander Migirov
Attorney Docket Number:	062403/00002

Filed as Small Entity

U.S. National Stage under 35 USC 371 Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Basic National Stage Fee	2631	1	155	155
Natl Stage Search Fee - all other cases	2632	1	255	255
Natl Stage Exam Fee - all other cases	2633	1	105	105
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
		Total in USD ($)		**515**

Electronic Acknowledgement Receipt	
EFS ID:	4011465
Application Number:	12294641
International Application Number:	PCT/US07/52939
Confirmation Number:	1871
Title of Invention:	METHOD AND SYSTEM FOR MONITORING A MOBILE STATION PRESENCE IN A SPECIAL AREA
First Named Inventor/Applicant Name:	Carlos Alberto PÉREZ LAFUENTE
Customer Number:	31013
Filer:	Alexander Migirov
Filer Authorized By:	
Attorney Docket Number:	062403/00002
Receipt Date:	26-SEP-2008
Filing Date:	
Time Stamp:	11:36:25
Application Type:	U.S. National Stage under 35 USC 371

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$515
RAM confirmation Number	6769
Deposit Account	500540
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: Charge any Additional Fees required under 37 C.F.R. 1.492 (National application filing, search, and examination fees) Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)	

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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Transmittal of New Application	62403_00002transmittal.pdf	143516 93a11f785dbd099e9e5c635ed28760e3be2cfd1d	no	2
Warnings:					
Information:					
2	Application Data Sheet	ADS.pdf	914301 6182bd55d53c1f5eba54a739b66b1d665a2623ea	no	4
Warnings:					
Information:					
3		62403_00002prelim.pdf	106730 593b197512915123799f263659e2a1f6f7b3524e	yes	8

Multipart Description/PDF files in .zip description

Document Description	Start	End
Preliminary Amendment	1	1
Specification	2	2
Claims	3	7
Applicant Arguments/Remarks Made in an Amendment	8	8

Warnings:					
Information:					
4	Information Disclosure Statement Letter	62403_00002ids.pdf	73708 084af8a752de439ed0eed3762e23a8a18c249bbe	no	2
Warnings:					
Information:					
5	Information Disclosure Statement (IDS) Filed (SB/08)	pto1449.pdf	638347 b9512f16ceb58136b66b6bfee002018be28c3d07	no	4
Warnings:					
Information:					
6	Fee Worksheet (PTO-06)	fee-info.pdf	32821 6a09b3db78d253974b1398578c4ad620e7183cb0	no	2
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If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Document code: WFEE

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