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### **Detailed Action**

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and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.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 03/23/2016 has been entered.

2. In virtue of this communication, claims 1-18 are currently pending in this Office Action.

### **Claim Rejections - 35 USC § 112**

3. The following is a quotation of the first paragraph of pre-AIA 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-13 are rejected under 35 U.S.C. 112 (pre-AIA), first paragraph, because the scope of the claims is not commensurate with the scope of the enabling disclosure. To consider requirement and enablement of subject matter of Claims 1-13 under 35 USC 112, first paragraph, all of the relevant factors with respect to the claims as a whole were considered as follows.

The claimed “the radio communication defining device” in claims 1-13 is recited in purely function terms without describing or providing the corresponding structures to perform. Accordingly, claims may encompass embodiments that are not enabled by the specification such that it could lead to the claims which essentially cover not only the functions disclosed and enabled but also any structure that performs the functions, which is beyond the scope enabled in the specification.

To avoid any ambiguity, it is suggested that applicant might want to explicitly recite the involvement of each structure or each part of “a radio communication defining device” to perform each claimed functional term, for instance, a transmitter for transmitting a distinctive defining signal, so that the claimed device is clearly enabled under 35 USC 112, First Paragraph. See MPEP 2164.08.

5. The following is a quotation of 35 U.S.C. 112 (pre-AIA), second paragraph:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 1 is rejected under 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor, or for pre-AIA the applicant regards as the invention.

The recited feature “... at least partly defines ...” in the claim is unclear of the boundary of the claim scope as the defining signal could include unlimited any other information in addition to the information regarding to a special area. Accordingly, the claim language has unclear boundaries of the claimed defining signal and thus, the claim renders indefiniteness. See MPEP 2173, 2173.05.

### Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 1, and 14 are rejected under 35 U.S.C. 101 because the claimed invention is directed to a judicial exception (i.e., a law of nature, a natural phenomenon, or an abstract idea) without significantly more. In fact, the claim rejections are invoked by the broadly recited claims which will be addressed in details below. The dependent claims are not addressed at this time for the facts: 1) the independent claims are broadly recited; 2) analyzing the dependent claims might be indicating the incomplete message such that applicant might only think that the particular dependent claim must cooperate into the independent claims in order to overcome the claim rejections under 35 USC 101. See MPEP 2106(I) and *Alice Corporation Pty. Ltd. v. CLS Bank International, et al.*, 573 U.S. No. 13-298, June 19, 2014.

Initially, claim 1 could be reasonably interpreted to broadcast a signal with its location and available channel, i.e., communication status, by a radio communication defining device and the broadcasted signal is received and processed by a mobile station. It is important to note that if reasonable interpretation is given to the limitations in claim 1 in accordance with MPEP 2111, claim does not specifically recite how to define a special area, what involved in transmitting a distinctive signal and how a mobile station receives and what required processing the received signal. If so, conventionally, a base station or an access points in a wireless communications system would

broadcast a pilot or a beacon signal including its area code, [as to the claimed feature a special area by its coverage], available channel [as to communication status in the claim, transmit power information, etc.,. Additionally, a mobile station would conventionally receive the broadcasted pilot or beacon to process whether to join the base station or the network based on the pilot or beacon received. Claim 1 is directed to an abstract idea as claim 1 recites merely transmitting, measuring and processing a signal, i.e., concerned with a mathematical equation or an algorithm for transmitting, measuring and processing (see 74622 Federal Register / Vol. 79, No. 241 / Tuesday, December 16, 2014 / Rules and Regulations). Accordingly, claim 1 does not recite the eligible subject matter since the claim fails to recite additional elements that amount to significantly more than the conventional features [i.e., an abstract idea] commonly known in the related art for transmitting pilot signal and processing or measuring the pilot signal.

Similarly, claim 14 is ineligible as the claim fails to recite additional elements that amount to significantly more than the conventional features [i.e., an abstract idea] commonly known in the related art for instance, intrinsic location updating procedure.

### **Double Patenting**

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory double

patenting rejection is appropriate where the claims at issue are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the reference application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement. A terminal disclaimer must be signed in compliance with 37 CFR 1.321(b).

The USPTO internet Web site contains terminal disclaimer forms which may be used. Please visit <http://www.uspto.gov/forms/>. The filing date of the application will determine what form should be used. A web-based eTerminal Disclaimer may be filled out completely online using web-screens. An eTerminal Disclaimer that meets all requirements is auto-processed and approved immediately upon submission. For more information about eTerminal Disclaimers, refer to:

<http://www.uspto.gov/patents/process/file/efs/guidance/eTD-info-l.jsp>.

10. Claims 1 and 14 are rejected on the ground of nonstatutory double patenting as being unpatentable over claim 1 of U.S. Patent No. 8,934,922 B2, respectively. Although the claims at issue are not identical, they are not patentably distinct from each other by the following reasons:

Initially, the instant limitations of the instant claims 1 and 14 are compared to the patented claim 1 such that: the instant limitations of "...to transmit ..."; "... received and processed by a mobile station"; and "... a status of ..." in instant claim 1 are compared to the patent limitations "preamble in the claim"; "transmitting via a mobile telephone network to the mobile station ..."; and "receiving ..." of claim 1, respectively; and the

instant limitations "receiving and processing ..."; and "sending ..." in instant claim 14 are compared to the patent limitations "preamble in the claim"; "transmitting via a mobile telephone network to the mobile station ..."; and "receiving ..." of claim 1, respectively.

Indeed, from the comparison, the patent claim 1 includes many more elements and more specific, and thereby, the patent claims encompass the broader scope of the instant claims 1 and 14. Accordingly, allowing the broader instant claims 1 and 14 could cause unjustified or improper timewise extension of the "right to exclude" granted by a patent and possible harassment by multiple assignees.

11. Claims 1 and 14 are rejected on the ground of nonstatutory double patenting as being unpatentable over claim 1 of U.S. Patent No. 9,119,030 B2, respectively. Although the claims at issue are not identical, they are not patentably distinct from each other by the following reasons:

Initially, the instant limitations of the instant claims 1 and 14 are compared to the patented claim 1 such that: the instant limitations of "...to transmit ..."; "... received and processed by a mobile station"; and "... a status of ..." in instant claim 1 are compared to the patent limitations "preamble in the claim"; "transmitting via a mobile telephone network to the mobile station ..."; "receiving ..."; and "deriving ..." of claim 1, respectively; and the instant limitations "receiving and processing ..."; and "sending ..." in instant claim 14 are compared to the patent limitations "preamble in the claim"; "transmitting via a mobile telephone network to the mobile station ..."; "receiving ..."; and "deriving ..." of claim 1, respectively.

Indeed, from the comparison, the patent claim 1 includes many more elements and more specific, and thereby, the patent claims encompass the broader scope of the instant claims 1 and 14. Accordingly, allowing the broader instant claims 1 and 14 could cause unjustified or improper timewise extension of the “right to exclude” granted by a patent and possible harassment by multiple assignees.

### Claim Rejections - 35 USC § 103

12. The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(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 negated by the manner in which the invention was made.

13. 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 pre-AIA 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

14. Claims 1-18 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over **Westerinen** et al. Pub. No.: US 2010/0317371 A1 in view of **Nylander** et al. Pub. No.: US 2008/0242298 A1.

### **Claim 1**

**Westerinen** discloses a radio communication defining device (EM radiation emitting devices in fig. 1-3) that is configured to transmit a distinctive defining signal that at least partly defines a special area by its coverage (see fig. 1-3 and par. 0040; par. 0098, the signal identifies information such as SSID and/or location is determined from the sensed signal; 1504 in fig. 15a & 15e), the distinctive defining signal capable of being received and processed by a mobile station (1106 of fig. 11 and 1206 of fig. 12; par. 0098, the mobile device processed the sensed EM signal to verify SSID and location).

Although **Westerinen** does not disclose “the distinctive defining signal including data regarding a status of the radio communication defining device”, it is considered obvious by the following rationales.

Initially, if reasonable interpretation is given to the claim limitation “a status of the radio communication defining device” in accordance with MPEP 2111, beacon signal or electron magnetic signal of **Westerinen** could be carrying a status of the EM radiation emitting device as depicted in fig. 1-3. Based the prosecution history, to advance the prosecution, evidence is provided here. Typically, the beacon or pilot signal would include the identifier of the transmitter, location code or network code for cellular base stations, regulator information such as transmit power, and available channel information and one of these parameters could be interpreted as a status of the radio communication defining device. The evidence of these parameters from beacon or pilot or control signal from the base station could be seen in **Nylander**. In particular,

**Nylander** teaches the distinctive defining signal including data regarding a status of the radio communication defining device (see par. 0033 & 0034 for signal including CGI, LAC or MCC and MNC and ARFCN; one of them could be reasonably interpreted as the status of communication).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of this invention was made, to modify electromagnetic radiation emitting device of **Westerinen** by providing unlicensed-radio access networks as taught in **Nylander**. Such a modification would have managed the access points of an unlicensed-radio network to greatly simplify the handover between a conventional public licensed mobile network and an unlicensed-radio access network connected to the conventional network as suggested in par. 0006 of **Nylander**.

## **Claim 2**

**Westerinen**, in view of **Nylander**, discloses the radio communication defining device according to claim 1, wherein the data includes information indicating whether or not the radio communication defining device is located in a predetermined environment (**Westerinen**, 1002 of fig. 10, 1106-1108 of fig. 11 and 1204-1206 of fig. 12 and location data 1504 in fig. 15a & 15e; **Nylander**, par. 0033,0034 & 0040, LAI or LAC or location code and CGI would indicate the corresponding location such as a predetermined environment).

**Claim 3**

**Westerinen**, in view of **Nylander**, discloses the radio communication defining device according to claim 2, wherein the distinctive defining signal includes identification data of the radio communication defining device (**Westerinen**, see fig. 3a and par. 0043-0044, 50-55 for SSID; **Nylander**, CGI in fig. 5 and see par. 0039-0041).

**Claim 4**

**Westerinen**, in view of **Nylander**, discloses the radio communication defining device according to claim 2 being configured to obtain information to determine whether or not the radio communication defining device is in the predetermined environment (**Westerinen**, 1002 of fig. 10, 1106-1108 of fig. 11 and 1204-1206 of fig. 12).

**Claim 5**

**Westerinen**, in view of **Nylander**, discloses the radio communication defining device according to claim 4 being configured to receive the information via wireless communication with a radio transmitting device (**Westerinen**, as depicted in fig. 1-3, the EM radiation emitting device could receive the transmission from mobile devices or the other backbone network devices).

**Claim 6**

**Westerinen**, in view of **Nylander**, discloses the radio communication defining device according to claim 5, wherein the radio transmitting device is a base station of a

mobile telephone network (**Westerinen**, par. 0049 or assume: EM emitting devices in fig. 1 are microcells or picocells of GSM which is conventionally link to the macro base station as described in par. 0040 & 0041 or fig. 2b for receiving a signal from BS of GSM; **Nylander**, par. 0028, HBSC connected to HBSC and MSC is able to receive a base station of mobile telephone network such as GSM, GPRS and CDMA 2000).

#### **Claim 7**

**Westerinen**, in view of **Nylander**, discloses the radio communication defining device according to claim 5 comprising a database that includes identification data of the radio transmitting device (**Westerinen**, fig. 1-3 in view of fig. 5 & 15 for having database inside EM radiation emitting device; **Nylander**, 40 in fig. 4).

#### **Claim 8**

**Westerinen**, in view of **Nylander**, discloses the radio communication defining device according to claim 4 configured to receive the information via communication with a fixed network to which the radio communication defining device is physically connected (**Westerinen**, par. 0057 & 0058, EM signals may be detected by the mobile device via a wired path).

#### **Claim 9**

**Westerinen**, in view of **Nylander**, discloses the radio communication defining device according to claim 8, wherein the fixed network is a telephone network

(**Westerinen**, fig. 3b and par. 0049 for communicating a landline telephone network in view of par. 0057).

#### **Claim 10**

**Westerinen**, in view of **Nylander**, discloses the radio communication defining device according to claim 8, wherein the fixed network is a power line communication network (**Westerinen**, power line communication in par. 0057).

#### **Claim 11**

**Westerinen**, in view of **Nylander**, discloses the radio communication defining device according to claim 8, wherein the fixed network is an embedded system in a car (**Westerinen**, par. 0074 & 0112, car).

#### **Claim 12**

**Westerinen**, in view of **Nylander**, discloses the radio communication defining device according to claim 8, further comprising a memory that stores one or more parameters useable to authenticate the radio communication defining device in the fixed network (**Westerinen**, as claim does not define what required or involved in authentication, as show in fig. 15, the EM radiation emitting devices in fig. 1-3 are authenticated based on the identifier as performed in 1208 of fig. 12; for instance, in fig. 15a, as shown in column 1504, based on ID1 or ID2 or ID#, the EM emitting devices in fixed network are identified or authenticated; alternatively, it is intrinsic feature for Wi-Fi

access points that device are conventionally joined after authentication and so does for Bluetooth Devices as shown in fig. 3 or see par. 0042 & 0044 for using IEEE 802.11 standard).

### **Claim 13**

**Westerinen**, in view of **Nylander**, discloses the radio communication defining device according to claim 1, wherein the distinctive defining signal is coded (**Westerinen**, coded is too broad and even GSM or 802.11 or Bluetooth or any transmission using any protocol could be said as coded; for instance, Wi-Fi transmission is coded by 802.11 standard as explained in par. 0043 and so does for GSM transmission coded by GSM standard).

### **Claim 14**

**Westerinen** discloses a method associated with the use of a mobile station (MS 100 in fig. 1-3) and at least one radio communication defining device (EM radiation emitting devices in fig. 1-3) that transmits a distinctive defining signal that at least partly defines a special area by its coverage (see fig. 1-3 and par. 0040; par. 0098, the signal identifies information such as SSID and/or location is determined from the sensed signal; 1504 in fig. 15a & 15e), the method comprising:

receiving and processing the distinctive defining signal in the mobile station (1106 of fig. 11 and 1206 of fig. 12; par. 0098, the mobile device processed the sensed EM signal to verify SSID and location); and

sending from the mobile station via the mobile telephone network an updating signal to one or more servers of a provider of presence related services about the mobile station's presence in the special area (fig. 5 and par. 0078, EM signals at different locations can be stored either at the mobile device or at a remote location; the mobile device 100 may communicate via a mobile device server 504 and a backend server such as database server 502 via a network 500 to upload data from sensing EM signals such as location data, time data and UI data).

Although **Westerinen** does not disclose “the distinctive defining signal including data regarding a status of the radio communication defining device, the updating signal comprising the data regarding a status of the radio communication defining device”, it is considered obvious by the following rationales.

Initially, if reasonable interpretation is given to the claim limitation “a status of the radio communication defining device” in accordance with MPEP 2111, beacon signal or electron magnetic signal of **Westerinen** could be carrying a status of the EM radiation emitting device as depicted in fig. 1-3. Based the prosecution history, to advance the prosecution, evidence is provided here. Typically, the beacon or pilot signal would include the identifier of the transmitter, location code or network code for cellular base stations, regulator information such as transmit power, and available channel information and one of these parameters could be interpreted as a status of the radio communication defining device. The evidence of these parameters from beacon or pilot or control signal from the base station could be seen in **Nylander**. In particular, **Nylander** teaches the distinctive defining signal including data regarding a status of the

radio communication defining device, the updating signal comprising the data regarding a status of the radio communication defining device (see par. 0033 & 0034 for signal including CGI, LAC or MCC and MNC and ARFCN; one of them could be reasonably interpreted as the status of communication).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of this invention was made, to modify electromagnetic radiation emitting device of **Westerinen** by providing unlicensed-radio access networks as taught in **Nylander**. Such a modification would have managed the access points of an unlicensed-radio network to greatly simplify the handover between a conventional public licensed mobile network and an unlicensed-radio access network connected to the conventional network as suggested in par. 0006 of **Nylander**.

#### **Claim 15**

**Westerinen**, in view of **Nylander**, discloses the method according to claim 14, wherein the data includes information indicative of whether or not the radio communication defining device is located in a predetermined environment (**Westerinen**, 1002 of fig. 10, 1106-1108 of fig. 11 and 1204-1206 of fig. 12 and location data 1504 in fig. 15a & 15e; **Nylander**, par. 0033,0034 & 0040, LAI or LAC or location code and CGI would indicate the corresponding location such as a predetermined environment).

**Claim 16**

**Westerinen**, in view of **Nylander**, discloses the method according to claim 14, wherein the sending of the updating signal is uncorrelated to any mobile station phone call establishment, the updating signal being sent at least one of (i) periodically, (ii) at times recent to when the mobile station enters into or exists from the special area, and (iii) when the mobile station remains in the special area (**Westerinen**, see fig. 9 & 10 for storing EM signals by time or location).

**Claim 17**

**Westerinen**, in view of **Nylander**, discloses the method according to claim 14, wherein the updating signal comprises the result of a previous determination performed by the mobile station about the mobile station's presence in the special area (**Westerinen**, par. 0078 in view of fig. 9, 10 & 15).

**Claim 18**

**Westerinen**, in view of **Nylander**, discloses the method according to claim 14, wherein the frequency of the updating signal is different from the frequency of the distinctive defining signal (**Westerinen**, as shown in fig. 1-3 & par. 0042-0058, EM radiation emitting devices could be communicating with Bluetooth or WLAN or IRDA and the mobile device in fig. 5 could uploading vis GSM network which uses different frequency from short range frequency such BT or WLAN or IRDA).

**Examiner's Note**

15. It is to note that the device claims 1-13 and the method claims 14-18 are recited with different features which might potentially lead to election/restriction requirement. Should applicant decide to amend the claims, it is suggested to keep within the same scope of the invention for the corresponding device and method claims in order not to invoke restriction requirement.

**Contact Information**

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAN HTUN whose telephone number is (571)270-3190. The examiner can normally be reached on MON-THU 7:00-5:30.

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). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SAN HTUN/

Primary Examiner, Art Unit 2643



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epatent@usiplaw.com



## **DETAILED ACTION**

### ***Notice of Pre-AIA or AIA Status***

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

### ***Continued Examination Under 37 CFR 1.114***

2. 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 03/23/2016 has been entered.

### ***Response to Arguments***

3. Applicant's arguments filed on 03/23/2016, with respect to 112, second paragraph rejection of claims 1-4 have been fully considered and are persuasive. The 112, second paragraph rejection of claims 1-14 has been withdrawn. A new rejection is provided below.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(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 negated by the manner in which the invention was made.

5. **Claims 1 and 2** are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over NINAGAWA (US 8,737,996) in views of ATORF (US 2002/0094801).

**Regarding claim 1**, Ninagawa discloses a method associated with a provider of presence related services (Fig. 1; charging server 7) and a mobile station (Fig. 1; FMC supported terminal 1) that stores in a memory checking data and uses the checking data to determine whether or not a defining signal received from a radio communication defining device is a distinctive defining signal (col. 4, lines 1-5; col. 6, lines 7-20; the FMC supported terminal (i.e., mobile station) recognizes the AP2 that defines the Fixed Network 3 based on the identifier (i.e., checking data) received from AP which has been previously stored on the FMC supported terminal), the distinctive defining signal at least partly defines a special area by its coverage (col. 1, lines 54-58; col. 4, lines 1-5; col. 4, lines 48-59; the AP2 periodically sends out control signals that includes the identifier that identifies the fixed network coverage inside the home (i.e., special area)), the method comprising:

one or more servers of a provider of presence related services (Fig. 1; charging server 7) receiving from the mobile station via a mobile telephone network an updating signal uncorrelated to any mobile station phone call establishment that identifies the mobile station's presence in the special area (col. 3, lines 64-col. 4, lines 1-5; col. 4, lines 39-52; when the FMC supported terminal 1 succeeds in receiving the control signal from the fixed network AP2 (i.e., defining device), the FMC supported terminal transmits a notification (i.e., updating signal) to the charging server (i.e., server of presence related services), the charging server receiving the notification regards the FMC supported terminal as locating inside the home (i.e., special area)),

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the provider of presence related services being different than the mobile telephone network (Fig. 1; charging server 7 is different than the mobile network 5);

and storing in the one or more servers a parameters database having an operating parameter (Fig. 3; col. 6, lines 43-50; col. 6, lines 65-col. 7, lines 1-3; the charging server includes a charging database that stores charging information (i.e., parameters) for the terminal 1, the connection fee for the fixed network (i.e., special area) and connection fee for the mobile network) whose value is determined at least in part by the updating signal received from the mobile station (col. 4, lines 44-59; col. 8, lines 8-14 when the charging receives the notification (i.e., updating signal) from terminal 1, the charging server charges the terminal 1 for the fixed network connection fee (i.e., value)).

But, Ninagawa does not particularly disclose determining when the mobile station is switched off; and upon determining that the mobile station is switched off setting the value of the operating parameter to an initial value.

However, in the same field of invention, Atorf teaches determining when the mobile station is switched off; and upon determining that the mobile station is switched off setting the value of the operating parameter to an initial value (p.[0004], [0029]; when the mobile telephone is within the fixed device, the mobile telephone transmits a signal to the base station indicating that is within the fixed device and the base station switches from “rate 1” (i.e., initial value) to “rate 2”, when the base station no longer receives the signal from the mobile terminal, the base station determines that the mobile telephone is no longer within the range of the fixed device or is switched off from the fact that the signal from the mobile terminal is no longer received (see p. [0030]), in that case the rate is preferably switched to the mobile radio rate/rate 1 (i.e., initial

value). Therefore, it would have been obvious to a person having ordinary skill in the art at the time that the invention was made, to modify Ninagawa with the teachings of Atorf, since such a modification would allow the system to dynamically change the charging rate of the mobile station when it is determined that the mobile station is no longer in range or serviced by a fixed network device (i.e., special area).

**Regarding claim 2**, the combination of Ninagawa and Atorf discloses 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 (Atorf – p. [0030]-[0031]).

6. **Claims 3 and 4** are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over NINAGAWA in view of TOEROE (US 8,019,364).

**Regarding claim 3**, Ninagawa discloses a method associated with the use of a mobile station that stores and uses checking data to determine whether or not a defining signal received from a radio communication defining device is a distinctive defining signal (col. 4, lines 1-5; col. 6, lines 7-20; the FMC supported terminal (i.e., mobile station) recognizes the AP2 that defines the Fixed Network 3 based on the identifier (i.e., checking data) received from AP which has been previously stored on the FMC supported terminal), the distinctive defining signal at least partly defining a special area by its coverage (col. 1, lines 54-58; col. 4, lines 1-5; col. 4, lines 48-59; the AP2 periodically sends out control signals that includes the identifier that identifies the fixed network coverage inside the home (i.e., special area)), the method comprising:

sending from the mobile station to at least one server of a provider of presence related services an updating signal via a mobile telephone network uncorrelated to any mobile station

phone call establishment that identifies the mobile station's presence in the special area, the updating signal being indicative of the mobile station's presence in the special area (col. 3, lines 64-col. 4, lines 1-5; col. 4, lines 39-52; when the FMC supported terminal 1 succeeds in receiving the control signal from the fixed network AP2 (i.e., defining device), the FMC supported terminal transmits a notification (i.e., updating signal) to the charging server (i.e., server of presence related services), the charging server receiving the notification regards the FMC supported terminal as locating inside the home (i.e., special area)), the provider of presence related services being different than the mobile telephone network (Fig. 1; charging server 7 is different than the mobile network 5).

But, Ninagawa does not particularly disclose receiving in the mobile station from the at least one server of the provider of presence related services an acknowledgement of a reception of the updating signal.

However, in the field of wireless communications, Toeroe teaches receiving an acknowledgment in response to the reception of a signal at server (col. 1, lines 24-36; the sending node (i.e., mobile station) sends a message to a receiving node (i.e., server) and awaits for an acknowledgement signal to verify that the message/notification was received). Therefore, it would have been obvious to a person having ordinary skill in the art at the time that the invention was made, to modify Ninagawa with the teachings of Toeroe, in order to provide feedback to the sender on whether the updating signal has been received.

**Regarding claim 4**, the combination of Ninagawa and Toeroe disclose the method according to claim 3, further comprising the mobile station retransmitting the updating signal upon not receiving the acknowledgement from the at least one server (Toeroe; col. 1, lines 24-

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36; if acknowledgement is not received, the message is retransmitted). Therefore, it would have been obvious to a person having ordinary skill in the art at the time that the invention was made, to modify Ninagawa with the teachings of Toeroe, in order to guarantee delivery of the updating signal.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARISOL FIGUEROA whose telephone number is (571)272-7840. The examiner can normally be reached on M-F 8:30 a.m.-5:00 p.m..

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). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MARISOL FIGUEROA/  
Primary Examiner, Art Unit 2643

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