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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/341,026	01/27/2006	Jarko Niemenmaa	P3394US00	2686

11764 7590 03/07/2013
Ditthavong Mori & Steiner, P.C.
44 Canal Center Plaza
Suite 322
Alexandria, VA 22314

EXAMINER
WANG-HURST, KATHY W

ART UNIT	PAPER NUMBER
2646	

NOTIFICATION DATE	DELIVERY MODE
03/07/2013	ELECTRONIC

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JARKO NIEMENMAA and VILLE RUUTU[1]

Appeal 2010-006978
Application 11/341,026
Technology Center 2600

Before JOHN A. JEFFERY, JAMES B. ARPIN, and TRENTON A. WARD, *Administrative Patent Judges*.

ARPIN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 1-29. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

INVENTION

Appellants' invention relates to methods, apparatus, and computer program products for providing location information based on a selected

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[1] Nokia Corporation is the real party in interest.

location method determined from a set of such methods based on predetermined selection criteria. *See generally* Abstract. Specifically, the location method may be selected to meet a location accuracy requirement specified in a request for location information while consuming a determinable amount of resources. *Id.* The predetermined selection criteria may be updated over time, such that the methods, apparatus, and computer program products are self-learning. *Id.* Claims 1 and 5-7 are illustrative and are reproduced below with disputed limitations emphasized:

> 1. A method comprising:
> determining a selected location method from a set of location methods based on predetermined selection criteria;
> communicating the selected location method to a position determining entity, the selected location method used to determine location information of a mobile terminal; and
> *updating the predetermined selection criteria responsive to information received from the position determining entity, the information being descriptive of the predetermined selection criteria based at least on employment of the selected location method with respect to the determined location information*.
>
> 5. A method according to Claim 4, wherein updating the predetermined selection criteria comprises *updating the expected accuracy based on accuracy information associated with the selected location method*.
>
> 6. A method according to Claim 5, wherein updating the predetermined selection criteria comprises *associating information about a location of an event generating an update with the update*.
>
> 7. A method according to Claim 4, wherein updating the predetermined selection criteria comprises *updating the resource consumption associated with the selected location method*.

The Examiner relies on the following as evidence of unpatentability:

Nowak	US 2006/0030337 A1	Feb. 9, 2006 (filed Sep. 29, 2005)
Khushu	US 2006/0052115 A1	Mar. 9, 2006 (filed Sep. 7, 2004)

THE REJECTIONS

The Examiner rejected claims 1-29 under 35 U.S.C. § 103(a) as unpatentable over Nowak and Khushu. Ans. 3-12.[2]

OBVIOUSNESS REJECTION OVER NOWAK AND KHUSHU

Regarding representative claim 1, the Examiner finds that Nowak teaches all of the limitations of claim 1, except that Nowak does not specifically teach the recited, predetermined selection criteria. Ans. 4. Nevertheless, the Examiner finds that Khushu teaches the recited, predetermined selection criteria. *Id.* Further, with respect to the additional limitations of dependent claims 5-7, the Examiner finds that Nowak teaches these additional limitations. *Id.* at 8.

Appellants argue that Nowak and Khushu do not teach or suggest the disputed limitation, as recited in claim 1. App. Br. 6-10. Further, Appellants argue that Nowak and Khushu do not teach or suggest the additional limitations of claims 5-7. *Id.* at 10-11.

ISSUES

(1) Under § 103, has the Examiner erred in rejecting claim 1 by finding that Nowak and Khushu, collectively, would have taught or

[2] Throughout this opinion, we refer to (1) the Appeal Brief (App. Br.) filed June 29, 2009; (2) the Examiner's Answer (Ans.) mailed September 29, 2009; and (3) the Reply Brief (Reply Br.) filed October 29, 2009. Although the Examiner indicates that claims 1-28, instead of claims 1-29, stand rejected (Ans. 3), we treat this as a typographical and harmless error since the Examiner treats claim 29 in this rejection. Ans. 12.

suggested "updating the predetermined selection criteria responsive to information received from the position determining entity, the information being descriptive of the predetermined selection criteria based at least on employment of the selected location method with respect to the determined location information"?

(2) Under § 103, has the Examiner erred by finding that Nowak and Khushu, collectively, would have taught or suggested:

(a) "updating the expected accuracy based on accuracy information associated with the selected location method," as recited in claim 5?

(b) "associating information about a location of an event generating an update with the update," as recited in claim 6?

(c) "updating the resource consumption associated with the selected location method," as recited in claim 7?

ANALYSIS

1. Claim 1.

Appellants divide the disputed limitation of claim 1 into two portions: (1) "updating the predetermined selection criteria responsive to information received from the position determining entity" and (2) "the information being descriptive of the predetermined selection criteria based at least on employment of the selected location method with respect to the determined location information." App. Br. 6-9. Appellants argue that Nowak and Khushu fail to teach or suggest either portion of the disputed limitation. *Id.* Based on the record before us, we see no error in the Examiner's rejection of representative claim 1.

a. *Teaching the Updating Step.*

First, Appellants argue that Nowak and Khushu fail to teach or suggest "updating the predetermined selection criteria responsive to information received from the position determining entity [(PDE)]." *Id.* at 6. With regard to Novak, Appellants acknowledge that Nowak permits the selection of a location determination method, using factors such as accuracy, cost, and timeliness. *Id.*; *see also* Nowak, ¶ [0051] ("[A]t some point prior to initiation of the protocol 700, the ranges associated with each specification (geographical accuracy, cost, timeliness, etc.) will have been defined."). Referring to Nowak's Paragraphs [0051] and [0052], Appellants further acknowledge that Nowak describes a system in which low, medium, or high accuracy may be specified and in which a PDE[3] of corresponding accuracy may be selected. App. Br. 6-7. Nevertheless, Appellants argue that, because Nowak does not update the predetermined criteria responsive to information received from the PDE, Nowak's system does not account for the most recent locating conditions. *Id.* Appellants argue that this difference is evident from Nowak's description that the system specifications are fixed "at some point *prior to initiation* of the protocol 700." Nowak, ¶ [0051] (emphasis added). Therefore, Appellants contend that Nowak does not teach "updating," as recited in claim 1. We disagree.

The Examiner finds that, in Paragraphs [0041] and [0051], Nowak teaches the "updating" step, as recited in claim 1. Ans. 4. Referring to

[3] We find that Nowak's "position determining equipment" properly maps on Appellants' "position determining entity," and we use the abbreviation "PDE" to describe both elements. Both Nowak and Appellants describe the Global Positioning System (GPS) as an example of a PDE. *Compare* Nowak, ¶ [0006] *with* Spec. ¶ [0004]; *see also* Khushu, ¶¶ [0004], [0007].

Paragraph [0041], Nowak teaches the elements of records 66 of PDE site database 62, as depicted in Nowak's Figure 4. Ans. 14-15. As Nowak states, "it [is] possible *to revise* the range of the specification [in the PDE database record] as system capabilities increase." Nowak, ¶ [0040] (emphasis added); *see* Ans. 15. Appellants contend that the use of the term "update" in claim 1 should be distinguished from the use of the term "revise" by Nowak. App. Br. 8; Reply Br. 3. Again, we disagree.

We apply the broadest reasonable meaning of the words in their ordinary usage, as those words would be understood by one of ordinary skill in the art, taking into account any definitions supplied by Appellants' Specification. *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997). Contrary to Appellants' assertion (App. Br. 8; Reply Br. 3), we find that there is no significant distinction between Nowak's use of the term "revise" and Appellants' use of the term "update." *See* Ans. 17. We note that a pertinent definition of the term "to revise" is "to alter (something written or printed), in order to correct, improve, or *update*." RANDOM HOUSE WEBSTER'S COLLEGE DICTIONARY 1128 (2d Random House ed. 1999) (emphasis added).

Nowak further discloses that different PDEs may have different capabilities, e.g., different accuracies. Nowak, ¶¶ [0006], [0013], [0051]; *see also* Spec. ¶ [0004] (similarly described in the "Background of the Invention"); *see also* Ans. 3-4. Thus, a person of ordinary skill in the relevant art would appreciate that replacing existing PDEs with improved PDEs having different capabilities would update or revise the PDE accuracies. Nowak, ¶ [0040]. Thus, referring to Nowak's Figure 4, the determination accuracy of a PDE may "increase," resulting in a decrease in the coverage area of the PDE, and the physical location of the PDE may

change, resulting in a new geographic location for the PDE's coverage area. *See* Ans. 15.

Nowak further states that "this arrangement provides great flexibility in comparing [Quality of Service (QoS)] attributes with PDE capabilities *and allows for changes in system capabilities to be implemented without necessarily changing the QoS parameters used by the location based applications*." Nowak, ¶ [0051] (emphasis added). Consequently, as improvements to geographical accuracy of PDEs within Nowak's system become available, "the interface may be configured such that it is able to receive requests from a client (i.e., application) having a narrower range." *Id.* at ¶ [0040]. Therefore, the Examiner concludes that Nowak teaches the updating of predetermined selection criteria as a result of location information received from a selected PDE. We agree.

To the extent that Appellants argue that Nowak describes defining the ranges associated with each specification "prior to the initiation of the protocol" and that Appellants' claim 1 recites updating at a different time, we find such arguments unpersuasive. Initially, we note that, according to claim 1, because the "updating" occurs "responsive to the information received," the "updating" must occur after the "determining" and "communicating" steps. Appellants argue that the "updating" step affects future determinations (App. Br. 9), but, in their claim 1, Appellants do not specify when the "updating" occurs (*id.* at 13). Thus, we construe the language of claim 1 to describe updating the predetermined selection criteria at any time before a future determination. As the Examiner explains, "[e]ach time the location process is executed represents a new opportunity to incorporate changed PDE values that will represent updated selection

criteria." Ans. 15. Therefore, Nowak's defining PDE ranges prior to the *next* initiation of the protocol is not excluded by Appellants' claim language.

b. *Teaching Descriptive Information.*

Second, Appellants argue that Nowak fails to teach that "the information being descriptive of the predetermined selection criteria based at least on employment of the selected location method with respect to the determined location information" is used to update the predetermined selection criteria. App. Br. 8-9. Appellants describe that future location determinations take into account the accuracy or consumption of resources, or both, of current determinations. *Id.* at 9; *see* Spec. ¶ [0009].

The Examiner finds that, in Nowak, "the ranges associated with each specification (geographical accuracy, cost, timeliness, etc.) will have been defined." Nowak, ¶ [0051]; Fig. 4. The Examiner finds that Nowak's specification of accuracy and cost corresponds to Appellants' exemplary description of "predetermined selection criteria." Further, as noted above, coverage area is determined based on the physical location of a PDE and the application of its detection radius (determining accuracy) to the equation for a circle. Ans. 15 (citing Nowak, ¶ [0041]). Because Nowak discloses a PDE specification database (Nowak, ¶ [0041]; Fig. 4), and because the values stored in this database may be "revised" to reflect increased capabilities (*id.* at ¶ [0040]), we agree with the Examiner that this second portion of the disputed limitation also is taught by Nowak.

c. *Khushu's Teaching.*

Finally, the Examiner finds that Khushu teaches that a position result returned by a PDE is "tested for acceptability . . . according to one or more predetermined criteria," e.g., the accuracy of the PDE's location

determination is compared to certain system criteria. Khushu, ¶ [0031]; *see* Ans. 4. Appellants argue, however, that Khushu fails to teach or suggest the limitations of Appellants' claim 1 that allegedly are missing from Nowak. App. Br. 9. For the reasons set forth above, however, we are not persuaded by Appellants' arguments regarding the alleged deficiencies in Nowak.

For the foregoing reasons, Appellants have not persuaded us of error in the rejection of: (1) independent claim 1; (2) independent claims 11, 17, and 27, which are not argued separately with particularity (App. Br. 9-10); and (3) dependent claims 2-4, 9, 10, 12-14, 18-22, 25, 26, 28, and 29, each of which depends from one of claims 1, 11, 17, or 27 and is not separately argued with particularity (*id.* at 10-11). Therefore, we sustain the rejection of these claims.

2. Claim 5.

Based on the record before us, we see no error in the Examiner's rejection of representative claim 5 which calls for, in pertinent part, "updating the expected accuracy based on accuracy information associated with the selected location method." Appellants argue that Nowak fails to teach updating the "expected" accuracy. App. Br. 10. Appellants argue that Nowak instead teaches selecting a PDE based on its location and secondary considerations, e.g., cost. *Id.* (citing Nowak, ¶ [0020]). Nevertheless, Nowak describes that PDEs may be correlated with a particular position determination technology, e.g., GPS (Nowak, ¶ [0051]); that PDEs may be chosen based on accuracy (*id.* at ¶¶ [0006], [0041]); and that QoS attributes may be compared with PDE capabilities to allow changes in system capabilities, e.g., location methods (*id.* at ¶ [0051]). Ans. 18. Therefore, we

are persuaded by the Examiner's findings that Nowak teaches the additional limitation of claim 5.

For the foregoing reasons, Appellants have not persuaded us of error in the rejection of: claim 5 and claims 15 and 23, which contain limitations corresponding to those of claim 5 and are not argued separately with particularity (App. Br. 10-11). Therefore, we sustain the rejection of these claims.

3. Claim 6.

Based on the record before us, we see no error in the Examiner's rejection of representative claim 6 which calls for, in pertinent part, "associating information about a location of an event generating an update with the update." Appellants argue that Nowak does not disclose that QoS location parameters may be assigned flexible values (Reply Br. 5) and that, even if the QoS location parameters could be flexibly changed, Nowak does not teach that such flexibility would not associate information about the location of an update generating event with the update (App. Br. 11; Reply Br. 5). Nevertheless, the Examiner demonstrates that, depending upon the accuracy required, a different PDE with different specifications (QoS information) may be selected. Ans. 8 (citing Nowak, ¶ [0051]), 18. Further, the Examiner finds that the movement of a mobile device may be an "event" prompting the requirement for a different PDE (e.g., an update). *Id.* Therefore, we are persuaded by the Examiner's findings that Nowak teaches the additional limitation of claim 6.

For the foregoing reasons, Appellants have not persuaded us of error in the rejection of claim 6. Therefore, we sustain the rejection of this claim.

4. Claim 7.

Based on the record before us, we see no error in the Examiner's rejection of representative claim 7 which calls for, in pertinent part, "updating the resource consumption associated with the selected location method." Appellants argue that Nowak includes "*no disclosure* regarding updating the predetermined selection criteria *at all*." App. Br. 11 (emphases added). Consequently, Appellants maintain that there can be no updating of the resource consumption associated with the selected location method. *Id.* For the reasons set forth above, we disagree.

Referring to Paragraph [0051], Nowak teaches that, prior to determining a location, "the ranges associated with each specification (geographical accuracy, *cost*, timeliness, etc.) [of a PDE] will have been defined" (emphasis added). *See also* Nowak, Figs. 4, 7. We agree with the Examiner that "cost" is a measure of resource consumption. Ans. 18. Further, the Examiner finds that any parameter of a PDE may be expressed in "standard" terms and compared to corresponding parameters of other PDEs. Nowak, ¶ [0051]. Moreover, because "*any* QoS parameter may be *assigned* a standardized value with and compared to any value in PDE database record 66" (*id.* (emphasis added)), the Examiner concludes that Nowak teaches that "any QoS attribute can be change [sic] allowing great flexibility for changes is [sic] systems capabilities." Ans. 18. We agree. Therefore, we are persuaded by the Examiner's findings that Nowak teaches the additional limitation of claim 7.

For the foregoing reasons, Appellants have not persuaded us of error in the rejection of: claim 7 and claims 8, 16, and 24, not argued separately

with particularity (App. Br. 11). Therefore, we sustain the rejection of these claims.

CONCLUSION

The Examiner did not err in rejecting claims 1-29 under § 103.

DECISION

The Examiner's decision rejecting claims 1-29 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

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