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Datasheet for the decision of 15 June 2007

Case Number: T 0187/05 - 3.5.03

Application Number: 01963426.0

Publication Number: 1227694

IPC: H04Q 7/38

Language of the proceedings: EN

Title of invention:
Location information providing apparatus, communication terminal, mobile communication terminal and location information providing method

Applicant:
NTT DoCoMo, Inc.

Opponent:
-

Headword:
Positional information providing apparatus/NTT

Relevant legal provisions:
EPC Art. 56
RPBA Art. 10a, 10b

Keyword:
"Inventive step - main request, auxiliary requests I & II (no)"
"Late filed claims - auxiliary request III (not admitted)"

Decisions cited:
-

Catchword:
-

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Case Number: T 0187/05 - 3.5.03

D E C I S I O N
of the Technical Board of Appeal 3.5.03
of 15 June 2007

Appellant: NTT DoCoMo, Inc.
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Decision under appeal: **Decision of the Examining Division of the European Patent Office posted 9 September 2004 refusing European application No. 01963426.0 pursuant to Article 97(1) EPC.**

Composition of the Board:

Chairman: A. S. Clelland
Members: A. Ritzka
M.-B. Tardo-Dino

Summary of Facts and Submissions

I. This appeal is against the decision of the Examining Division dated 9 September 2004, refusing European patent application No. 01963426.0 for the reasons that the subject-matter of each of the independent claims of the main request did not involve an inventive step having regard to the disclosure of D1

Dl: 3GPP TSG SERVICES AND SYSTEM ASPECTS, 3G TS 23.171 v1.0.0: "Functional stage 2 description of location services in UMTS" Sophia-Antipolis, October 1999 (1999-10),

and/or

D3: 3GPP TSG RAN, 3G TR 25.923 v1.1.0: "Report on Location Services (LCS)" Sophia-Antipolis, 16th - 20th August 1999 (1999-08),

and that the subject-matter of the independent claims of the first auxiliary request lacked support in the description.

II. Notice of appeal was filed on 9 November 2004 and the appeal fee paid. The statement of grounds of appeal was filed on 21 December 2004. The appellant requested that the appealed decision be set aside and that the application be allowed on the basis of one of the sets of claims labelled main request, auxiliary request I and auxiliary request II filed with the grounds of appeal. An auxiliary request for oral proceedings was made.

III. In a communication accompanying a summons to oral proceedings the board made observations regarding the clarity of claim 1 of the main request and claim 1 of auxiliary request I, and as to whether the subject-matter of each of independent claims of all requests involved an inventive step having regard to the disclosure of D3.

IV. With letter of 15 May 2007, in response to the communication, the appellant filed a revised main request and auxiliary requests I and II to replace the requests on file. The appellant presented arguments regarding inventive step.

V. At the oral proceedings held on 15 June 2007 the appellant maintained the main request and auxiliary requests I and II and presented a new auxiliary request III.

At the end of the hearing the chairman announced the board's decision.

VI. Claim 1 of the main request reads as follows

"A positional information providing apparatus (45),

characterized by

receiving means for receiving, from a mobile communication terminal, a request for measurement of a position of a mobile communication terminal to be measured, wherein the request comprises identification information of the mobile communication terminal to be measured, information on measurement quality conditions

with respect to the requested measurement, and identification information of a terminal which is designated as a destination for receiving the positional information;

selecting means (452) for selecting, from among a plurality of measuring systems (50a—50d) which are associated with said identification information of said mobile communication terminal, a measuring system suitable for said information on measurement quality conditions received from said mobile communication terminal;

acquiring means for acquiring positional information on said mobile communication terminal using said measuring system selected by said selecting means; and

transmitting means (451) for transmitting said positional information acquired by said acquiring means to said terminal which is designated as a destination."

Independent claims 12 and 19 of the main request are directed to a corresponding mobile communication terminal and positional information providing method, respectively.

Claim 1 of auxiliary request I adds to claim 1 of the main request that "said information on measurements [sic] quality conditions indicates a plurality of conditions regarding position measurement having a priority order, and data indicating said priority order is input by input means of said mobile communication terminal". Independent claims 10 and 16 are directed to

a corresponding mobile communication terminal and positional information providing method, respectively.

Claim 1 of auxiliary request II adds to claim 1 of the main request that "said selecting means excludes the measuring systems corresponding to not operating measuring centers from all of the measuring systems able to execute the measurement and determines a priority order using the measuring systems in accordance with the measuring quality conditions received from said mobile communication terminal". Independent claim 12 is directed to a corresponding positional information providing method.

Claim 1 of auxiliary request III is based on claim 1 of the main request and additionally specifies that the selecting means selects "from a measuring system database storing a plurality of measuring systems which are associated with said identification information of said mobile communication terminal upon subscription to the positional information service". Independent claim 12 is directed to a corresponding positional information providing method.

Reasons for the Decision

1. *Main request*

1.1 Technological background

Positional information providing apparatus for a mobile communication terminal may use different position measuring systems. A request for measurement of the

position of the mobile communication terminal includes *inter alia* information on measurement quality conditions according to which a suitable measuring system is selected for acquiring positional information on the mobile communication terminal.

1.2 Novelty and inventive step

The provision of a location services feature within the UMTS/UTRAN standard is foreseen in document D3, which is the report of a standardization working group. The location information may be requested by and reported to a client associated with a user equipment, see Chapter 3.1, page 7. When a location services application requests the current location information of a mobile terminal, it can also indicate or require a certain level of quality of the location information. The quality of location information can involve parameters such as accuracy, update frequency, time stamp, time-to-first-fix, reliability and continuity, see Chapter 5.2.1.1, page 18. The quality level requirement of each service (application) is negotiable and can be set both by the subscriber and the service provider, see Chapter 5.2.1.1, pages 18 and 19. A location service application is defined in D3 as a logical functional entity that requests location information for a user equipment from location system functional entities within a specified set of parameters such as quality of service. The location services application may reside in an entity within the UTRA network, the user equipment, i.e. a mobile communication terminal, constituting such an entity, see Chapter 6.4.1, page 32.

Thus, in D3 it is foreseen that a request made by the location services application for measurement of a position of a mobile communication terminal to be measured may be received from another mobile communication terminal and may specify a measurement quality condition with respect to the requested measurement. Since one mobile communication terminal may request location information from another, this implies that the request comprises identification information of the mobile communication terminal as well as identification information of the terminal which is designated as a destination for receiving a positional information.

According to Chapter 4.8, page 14 of D3 the location service design should not be limited to a single technique or source of information. The location system control function will select the appropriate location method based on the availability of resources and parameters of the location request, see Chapter 6.4.2.1, page 33. Thus, D3 discloses a plurality of measuring systems from among which the measuring system suitable for the requested information on measurement quality conditions received from said mobile communication terminal is selected. As D3 refers at page 28, lines 1 to 3 to the possibility of querying the user equipment to determine the capabilities and using this information to select the mobile operation, the board takes the view that the skilled person would understand the plurality of measuring systems to be associated with the identification information of the mobile communication terminal.

Turning to the appellant's argument that the term "associated" implies a determination and registration of the plurality of suitable measurement systems before the request takes place, the board notes that this interpretation is not covered by the general meaning of "associated". In the board's view, the term "associated" does not in the context include any time condition.

The location system control function serves to coordinate resources and activities needed to obtain data, e.g. base station geographic coordinates, needed for the location method, see Chapter 6.4.2.1, page 33. Accordingly, D3 discloses acquiring positional information on the mobile communication terminal using the selected measuring system. Finally, it is self-evident that in D3 the location information of the positional information must be reported, i.e. transmitted, to the location system application associated with the user equipment i.e. terminal which is designated as a destination, see Chapter 3.1, page 7 and Chapter 6.1.4, pages 26 and 27.

Although D3 is concerned with the functionality of location services and does not explicitly disclose a positional information providing apparatus as claimed in claim 1, the skilled person would understand that the functionality disclosed in D3 may be realised in a positional information providing apparatus comprising means having the functions of receiving, selecting, acquiring and transmitting as disclosed in D3. The board notes that the claimed receiving means, selecting means, acquiring means and transmitting means are only defined by their functions without specifying which

technical features are required that would involve an inventive step. Thus, the subject-matter of claim 1 does not involve an inventive step.

These arguments apply *mutatis mutandis* to the mobile communication terminal of claim 12 and the positional information providing method of claim 19.

2. *Auxiliary request I*

2.1 Interpretation of claim 1

Claim 1 of auxiliary request I differs from claim 1 of the main request in adding that the "information on measurements [sic] quality condition indicates a plurality of conditions regarding position measurement having a priority order, and data indicating said priority order is input by input means of said mobile communication terminal".

In the board's view, the term priority order is vague and needs interpretation.

Paragraph [0094] of the published application states that a user requesting the measurement inputs measuring quality conditions in accordance with an input screen displayed in Figure 15. Conditions of items such as the measuring time, a measuring precision, rate, and allowable waiting time are set in accordance with a "control input", and the priority order of these conditions is set in accordance with the "control input", see column 17, lines 39 to 45.

During the oral proceedings the appellant argued that the conditions set in accordance with the "control input" corresponded to a weighted combination of the specific conditions and gave as an example that one user might request positional information having high precision but would not attach much importance to the waiting time, whereas another user might need the positional information quickly but would not need a high precision. Accordingly, the board interprets the term "priority order" as information on measurement quality conditions that is defined by a specific combination of several quality conditions.

2.2 Inventive step

The board's comments on inventive step are based on the interpretation of claim 1 discussed at point 2.1 above.

As regards the common features of claim 1 of the main request and auxiliary request I, the comments on inventive step presented in point 1.2 above apply.

D3 discloses at Chapter 5.2.1.1, page 19 that the quality level requirement may be set by the subscriber. The board notes that the quality level requirement may be a specific combination of several quality conditions. In the board's view, the technical step of considering the required quality level is independent from the content of the quality level requirement. The board understands introducing the priority order as defining the quality level requirement by a different content. Thus, no inventive step can be seen in inputting the priority order, which is understood as a quality level

requirement, by input means of the mobile communication terminal.

The arguments apply *mutatis mutandis* to independent claims 10 and 16 also.

The appellant's argument that the technical problem underlying the claimed subject-matter is a reduction of signalization traffic is not convincing, since the claimed solution, as interpreted in the light of the description and the explanation given during the hearing, see point 2.1 above, does not go beyond considering a quality level requirement disclosed in D3 at Chapter 5.2.1.1 at page 19.

3. *Auxiliary request II*

Claim 1 of auxiliary request II differs from claim 1 of auxiliary request I in that the selecting means "excludes the measuring systems corresponding to not operating measuring centres from all of the measuring systems able to execute the measurements."

The comments on inventive step presented in point 2.2 above apply as regards the common features.

D3, Chapter 6.4.2.1, discloses that the location system control function selects the appropriate location method based on the availability of resources and parameters of the location request. In other words, resources which are not available are excluded. The additional feature of claim 1 of auxiliary request II is thus known from D3 and the subject-matter of claim 1

of auxiliary request II therefore does not involve an inventive step.

The arguments apply *mutatis mutandis* to independent claims 6 and 12 also.

4. *Auxiliary request III*

4.1 Admissibility

According to Article 10a(2) RPBA, the statement of grounds of appeal and the reply shall contain a party's complete case. According to Article 10b(1) RPBA any amendment to a party's case after it has filed its grounds of appeal or reply may be admitted and considered at the board's discretion. The discretion shall be exercised in view of *inter alia* the complexity of the new subject-matter submitted, the current state of the proceedings and the need for procedural economy.

Auxiliary request III was first presented at the oral proceedings. The appellant argued that new aspects first arose during the oral proceedings, the claims of auxiliary request III taking into account these new aspects and that allowable claims should not be refused for the reason of being late filed.

The board notes that the issues discussed during the oral proceedings did not go beyond those raised in the communication accompanying the summons to oral proceedings. Accordingly, the appellant was in a position to present auxiliary request III in advance of the hearing.

Moreover, and prima facie about the merits of this request, claim 1 of auxiliary request III differs from claim 1 of the main request in providing a measuring system database storing a plurality of measuring systems which are associated with the identification information of said mobile communication terminal upon subscription to the positional information service. According to the appellant, the problem underlying claim 1 of auxiliary request III is to reduce signalization traffic between the mobile communication terminal and the network when a request for measurement of a position of the mobile communication terminal is made.

The board notes that in existing mobile communication systems parameters relating to a subscriber are stored in the home location register, which represents a system database. The home location register also includes information related to the current location of the subscriber. This information is stored to avoid signalization traffic between a subscriber's user equipment and a network.

As the use of databases for storing information related to the subscription or the current location of a subscriber's user equipment is generally known in mobile communications systems, the amendment of claim 1 does not in the board's view add inventive subject-matter which would justify further examination. Thus, the subject-matter of claim 1 does not appear to be clearly allowable and in the interest of procedural economy auxiliary request III is not admitted into the procedure.

5. There being no other requests, the appeal has to be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

A. Wolinski A. S. Clelland