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# DECISION of 28 July 2005

W 0011/05 - 3.5.3	
PCT/EP 02/14778	
WO 2004/059996 A1	
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Language of the proceedings: EN

# Title of invention:

Location based services for mobile communication terminals

# Applicant:

NOKIA CORPORATION

## Opponent:

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## Headword:

Location based services for mobile communication terminals/NOKIA

# Relevant legal provisions:

PCT Art. 34(3)(a) PCT R. 13.1, 13.2, 68.2, 68.3

## Keyword:

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# Decisions cited: T 0647/93, W 0004/94, W 0006/98, W 0017/03

## Catchword:

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Europäisches Patentamt European Patent Office Office européen des brevets

Boards of Appeal

Chambres de recours

Case Number: W 0011/05 - 3.5.3 International Application No. PCT/EP 02/14778

### DECISION of the Technical Board of Appeal 3.5.3 of 28 July 2005

Applicant:	NOKIA CORPORATION Keilalahdentie 4 FI-02150 Espoo (FI)	
Representative:	VAN WALSTIJN, B. Gerard G. Walstijn Intellectual Property ApS Parkovsvej 3 DK-2820 Gentofte (DK)	
Decision under appeal:	Protest according to Rule 68.3(c) of the Patent Cooperation Treaty made by the applicants against the invitation of the European Patent Office (International Preliminary Examining Authority) to restrict the claims or pay additional fees dated 3 February 2005.	

#### Composition of the Board:

Chairman:	Α.	s.	Clelland
Members:	Α.	J.	Madenach
	С.	Holtz	

#### Summary of Facts and Submissions

- I. On 27 December 2002 the applicant filed the international patent application PCT/EP 02/14778. The EPO as international search authority (ISA) issued on 17 October 2003 an invitation to pay 3 additional fees under Article 17(3)(a) PCT and Rule 40.1 PCT. The additional fees were paid on 7 November 2003. The international search report by the EPO was issued in accordance with Rule 44.1 PCT on 15 December 2003. A demand for an international preliminary examination under Article 31 PCT was filed with the EPO as international preliminary examination authority (IPEA) on 10 June 2004.
- II. On 3 February 2005 the IPEA issued a reasoned communication under Rule 68.2 PCT informing the applicant that it considered that the international application did not comply with the requirements of unity of invention (Rule 13.1, 13.2 and 13.3 PCT) and invited the applicant to restrict the claims or to pay additional fees.

In this communication, the IPEA cited

D1: US 2001/0048364 A

and stated that independent claim 1 lacked novelty in view of the disclosure of D1. The IPEA furthermore considered that the international application comprised the following four groups of inventions, namely:

Group 1: claims 1-10, 48-61: method of determining the relative position of a terminal in which, after

determining its own position, the terminal receives position information from other nodes and processes these two informations;

Group 2: claims 11-23: method of searching objects comprising the steps of transmitting a request to a server in the network, processing the request in the server by searching through a database for information matching the request and replying with information matching not only the request, but also the location of the mobile terminal;

Group 3: claims 24-40: mobile communication terminal which is able to track changes of its position with respect to its own previous positions;

Group 4: claims 41-47: method of distributing location information within a group of mobile communication terminals wherein the location of all members of the group is processed by a server and then transmitted to all members of the group.

III. In reply to the communication under Rule 68.2 PCT, the applicant paid on 23 February 2005 three additional preliminary examination fees under protest and submitted a reasoned statement under Rule 68.3(c) PCT.

> In this statement, the applicant submitted that the invitation was not a logically presented technical reasoning with respect to the finding of lack of unity. In particular, the invitation did not make it clear whether the objection of lack of unity was a priori or a posteriori. Furthermore, the objection that D1 disclosed the subject-matter of claims 1 to 5 was not

comprehensible since no feature analysis of the claims was given.

IV. A review panel of the IPEA concluded in their review of the protest under Rule 68.3e) of 24 March 2005 that the reasoning in the IPEA's communication was well founded.

> In particular it was considered that the reference to the references in the search report was sufficient to allow the applicant to verify the objection of lack of novelty with no undue burden. The review panel furthermore argued that the protest should be rejected as unfounded since it did not discuss the objection of lack of unity of the application.

- V. The applicant submitted a debiting mandate for the protest fee on 6 April 2005.
- VI. Independent claim 1 of the first group of inventions reads as follows:

" A method of determining the relative position of a mobile communication terminal in a cellular network to an object, comprising the steps of:

a) the mobile communication terminal determining
its geographical position through cell
identification or a more sophisticated cellular
network based positioning method,
b) the mobile communication terminal requesting
the geographical position of an object via a
cellular network based connection, either directly
from said object if the object is capable of
communicating with the mobile communication
terminal and is aware of its geographical position

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or from a server having the geographical position of said object stored thereon, c) said object or said server, sending the requested geographical location via a cellular network based connection to the mobile communication terminal in response to said request, and d) said mobile communication terminal comparing its own geographical position with the received

geographical position and determining the distance and direction to the received geographical position."

Independent claim 11 of the second group of inventions reads as follows:

"A method of searching persons that are associated with a mobile communication terminal, comprising the steps of:

- registering characteristics of said persons on a server in a searchable format;
- monitoring the geographical positions of said mobile terminals in a cellular network;
- said first mobile communication terminal requesting said server to list persons matching particular characteristics and located within a given geographical area, preferably within or outside a given range from the mobile communication terminal; and
- said server providing a list with matching persons to said first mobile communication terminals."

Independent claim 24 of the third group of inventions reads as follows:

"A mobile communication terminal for use in a cellular network, comprising means to determine the geographical position of the mobile terminal via interaction with said cellular network, and means for tracking changes in graphical [sic] position."

Independent claim 41 of the fourth group of inventions reads as follows:

"A method of distributing location information within a group of mobile communication terminals in a cellular network, comprising the steps of:

- defining a group comprising at least two mobile communication terminals of which the geographical position can be determined via interaction between the mobile terminal and the cellular network;
- determining the geographical position of all the communication terminals of the group, and
- sending communicating [sic] the determined geographical positions to all the terminals of the group."

#### Reasons for the decision

 The present protest relates to an invitation by the IPEA under Rule 68.2 PCT to restrict the claims or to pay additional fees. 1.1 The invitation is based on the IPEA's objection of lack of unity of invention (Rule 13.1 PCT). It was argued that there was no technical relationship involving one or more of the same or corresponding special technical features in the sense of Rule 13.2 PCT between the subject-matter of the groups of claims set out at point II above.

- 1.2 According to Article 155(3) EPC and Rule 105(3) EPC, the Boards of Appeal are responsible for deciding on a protest made by an applicant against additional fees charged by the European Patent Office under the provisions of Article 34(3)(a) of the PCT.
- 2. Reasoned Invitation to restrict or pay (Rule 68.2 PCT)
- 2.1 The applicant has indicated in his protest what he considers to be deficiencies in the IPEA's invitation to pay additional fees. He states that the invitation was not reasoned in accordance with "Annex B of the Administrative Instructions" and that it is not clear whether the objection of lack of unity was raised a priori or a posteriori, i.e. before a search was carried out or based on the results of the international search report. The applicant has further argued that the finding that claims 1-5 lack novelty in view of the disclosure of D1 was not sufficiently reasoned since no feature analysis was given in the invitation.
- 2.2 In principle, the board agrees with the applicant that the invitation fails to make clear whether the alleged lack of unity was raised a priori or a posteriori, and

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is not fully argued with respect to the alleged lack of novelty of the subject-matter of claims 1-5.

In particular, with respect to the first group of inventions the invitation first discusses the alleged lack of novelty of the subject-matter of claims 1-5 in relation to the disclosure of D1, and concludes by saying that claim 6 provides a special technical feature as defined in Rule 13.2 PCT, i.e. "prompting for user acceptance before answer [sic] a location request while determining the position of a mobile terminal", this feature apparently being derived from the language of claim 6. A second special technical feature is said to be "means for receiving data containing one or more geographical locations", this feature being apparently derived from claims 48 and 53. The IPEA then continues by saying that the objective problem to be solved by these special technical features of the first group of inventions is "how to determine the relative position of a mobile terminal in relation with other information"; this problem is apparently based on the features of claim 1 alone since it does not consider the more specific features of claims 6, 48 or 53. It thus appears independent of the disclosure of D1 or any other prior art.

With respect to the second group of inventions, the IPEA concludes that D1 does not disclose specific features of claims 11 and 19 which are said to represent special technical features. The IPEA then considers that the problem to be solved by these special technical features is "how a terminal can receive information matching its position"; this latter statement being apparently based on the features of claim 11 alone, irrespective of the prior art.

With respect to the third group of inventions, the IPEA concludes that D1 does not disclose a specific feature of claim 24 which is said to represent a special technical feature. The IPEA then considers that the problem to be solved by this special technical feature is "how to track a history of position changes of a mobile terminal"; this latter statement being apparently based on the features of claim 24 alone, irrespective of the prior art.

Finally, with respect to the fourth group of inventions, the IPEA concludes that D1 does not disclose specific features of claim 41 which features are said to represent special technical features. The IPEA then considers that the problem to be solved by these special technical features is "how the position of the members of a group of mobile terminals can be monitored"; this latter statement being apparently based on the features of claim 41 alone, irrespective of the prior art.

The IPEA summarises its invitation by stating that the special technical features "of the first, second, third and fourth inventions are not common nor can they be considered as corresponding since they provide four different solutions to four different problems".

The whole argument of the IPEA leaves open the question of whether the basis for the objection of lack of unity is the different problems to be solved by the four alleged inventions or the features of claims 6, 11, 24 and 41 said to go beyond the disclosure of D1.

2.3 At this point it is instructive to look at the invitation of the ISA of 17 October 2003 to pay additional fees. In this invitation, the ISA identified the same four groups of inventions as the IPEA and considered the same problems to be solved by each of these inventions. The ISA concluded by saying that the only technical feature considered to be common to all groups of inventions was the processing of the position of mobile terminals. This technical feature was considered to be known from D1.

Thus, the lack of unity of invention according to the invitation of the ISA was raised a posteriori.

- 2.4 In deciding whether the invitation was sufficiently reasoned in the sense of Rule 68.2 PCT, the board refers to the PCT Preliminary Examination Guidelines (as in force from 9 October 1998), Chapter VI, 5.5, which state that "a logically presented, technical reasoning containing the basic considerations behind the finding of lack of unity in accordance with Annex B of the Administrative Instructions" should be set out.
- 2.5 It follows from established case law of the boards of appeal that a decision under the EPC is considered to be reasoned if it contains for an objection a logical chain of facts and arguments in support of the objection (see e.g. T 0647/93, OJ EPO 1995, 132, point 4.2). The board considers that this applies in an analogous manner to an invitation under Rule 68.2 PCT. The mere fact that an invitation contains argumentation

which is somewhat unclear does not necessarily mean that the invitation is not reasoned. Thus, in W 4/94 (OJ EPO 1996, 73, point 4.1) it was considered that the prime reason for the decision was identifiable, even though the reasons could be seen as insufficient or incorrect.

2.6 The board notes that the IPEA's invitation contains, apart from the indication of the individual inventions, an analysis of the objective problems considered to be solved by these inventions and the statement that "the special technical features of the first, second, third and fourth inventions are not common nor can they be considered as corresponding since they provide four different solutions to four different problems". In the board's opinion, this set of arguments, although obscured by the references to D1, is also sufficiently reasoned as it goes beyond a mere enumeration of the various inventions by indicating the different problems to be solved.

The further decision, W 6/98, referred to by the applicant, does not provide any further guidance to that already quoted from the PCT Preliminary Examination Guidelines under point 2.4 above.

2.7 The board thus concludes that the invitation was reasoned in the sense of Rule 68.2 PCT.

The question of whether the novelty objection based on D1 was adequately reasoned is of no relevance to this conclusion.

#### 3. Reasoned protest (Rule 68.3(c) PCT)

- 3.1 In their review of the protest, the review panel of the IPEA considered the protest as unfounded as it did not argue for the unity of the invention and, thus, did not satisfy the formal requirements of Rule 68.3(c) PCT.
- 3.2 It is correct that the protest does not deal with what the board considers the decisive argument of the invitation with respect to lack of unity of the invention (see point 2.2 above). The protest is, however, a bona fide effort to deal with arguments raised in the invitation. In particular, the protest deals with what the applicant could have justifiably considered to be one basis of the IPEA's reasons, i.e. an a posteriori lack of unity in view of the disclosure of D1. The mere fact that the protest does not deal with the other argument of the invitation, i.e. that the special technical features "of the first, second, third and fourth inventions are not common nor can they be considered as corresponding since they provide four different solutions to four different problems", does not mean that the protest is not reasoned in the sense of Rule 68.3(c) PCT. This conclusion is reinforced by the fact that the protest is obliged to answer the somewhat unclear arguments given by the IPEA, see point 2.2 above.
- 3.3 The board thus concludes that the protest is reasoned as required by Rule 68.3(c) PCT.

#### 4. Unity of invention (Rule 13 PCT)

4.1 Unity of invention requires the existence of a single general inventive concept, see Rule 13.1 PCT. According to Rule 13.2 PCT, "Where a group of inventions is claimed ... the requirement of unity of invention referred to in Rule 13.1 shall be fulfilled only when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features. The expression "special technical features" shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art".

> According to the PCT International Preliminary Examination Guidelines, III-7.5, an objection as to lack of unity of invention may arise "a priori", that is, before considering the claims in relation to any prior art, or may only become apparent "a posteriori", that is, after taking the prior art into consideration.

Obviously, unity of invention has first to be established in the "a priori" sense. Only then, can unity in relation to the prior art be considered.

4.2 Following established case law, the effects achieved and the problems solved by "special technical features" should be examined to determine the full contribution of a claim over the prior art so as not to miss any correspondence amongst apparently dissimilar features (see e.g. W 17/03, not published in the OJ, EPO, points 2.3 and 2.4). In a first approach, it is reasonable to start from a very general formulation of the problems to be solved by the various groups of inventions in order to establish whether there is any technical relationship between them.

The board agrees with the IPEA that the problems solved by the inventions 1-4 can respectively be formulated as:

- how to determine the relative position of a mobile terminal in relation with other information
- how a terminal can receive information (e.g. about a group of persons) matching its position
- how to track a history of position changes of a mobile terminal
- how the positions of the members of a group of mobile terminals can be monitored.

The board considers these problems as the most general possible sensible formulation arising from the features of claims 1, 11, 24 and 41, respectively, without consideration of the prior art. Any further generalisation in an attempt to unify the problems to be solved leads to a trivial problem formulation such as "determining and processing geographical positions of mobile communication terminals involving a cellular network" similar to the formulation arrived at by the ISA, see point 2.3 above. This latter, generalised problem, however, is not only known from D1 (see abstract), as indicated in the invitation by the ISA, but commonly solved in known cellular networks by straightforwardly providing the geographical position of mobile communication terminals at least on the basis of the individual cells forming the network.

4.3 With respect to the four problems determined by the IPEA, the board fails to see any correspondence or identity between them which would allow to consider the four groups of inventions as meeting the requirement of unity of invention in the sense of Rule 13.2 PCT.

More specifically, disregarding the only apparently common aspect, i.e. the determination and processing of geographical positions of mobile communication terminals involving a cellular network, which is inherent in any cellular network (see point 4.2 above), the four problems identified by the IPEA concern the determination of relative positions of mobiles, obtaining information (e.g. about a group of persons) matching the position of a mobile terminal, tracking a history of position changes of a mobile terminal, and monitoring the positions of a group of mobile terminals, respectively.

Whereas the first problem involves the comparison of two or more geographical positions, the second is related to setting up a data file related to an actual position. The third problem is related to setting up a data file of previous tracked positions of a single mobile terminal, and the fourth problem is concerned with setting up a group of mobile terminals and the monitoring of their instantaneous positions. Thus, the four problems are unrelated and do not have any correspondence between them which could relate to a "special technical feature". 4.4 There being no identical or corresponding special technical features in the sense of Rule 13.2 PCT, the four groups of inventions lack unity. As this lack of unity arises without regard to the prior art (see 4.2 above) it is an a priori lack of unity.

The applicant did not bring forward any argument in this respect. In summary, the protest must be refused for the reasons indicated above.

# Order

# For these reasons it is decided that:

The protest is refused.

The Registrar

The Chairman

D. Magliano

A. S. Clelland