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T 0604/06 - 3.5.01 Case Number:

Application Number: 97930197.5

Publication Number: 0912946

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Language of the proceedings: EN

Title of invention:

Method and system for coupling a selective call receiver to widely distributed information sources

Applicant:

MOTOROLA, INC.

Opponent:

Headword:

Selective call receiver/MOTOROLA

Relevant legal provisions:

EPC Art. 123(2)

Relevant legal provisions (EPC 1973):

EPC Art. 56

Keyword:

"Inventive step (no)"

Decisions cited:

Catchword:



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Boards of Appeal

Chambres de recours

Case Number: T 0604/06 - 3.5.01

DECISION
of the Technical Board of Appeal 3.5.01
of 6 May 2008

Appellant: MOTOROLA, INC.

1303 East Algonquin Road Schaumburg, IL 60196 (US)

Representative: Cross, Rupert Edward Blount

Boult Wade Tennant Verulam Gardens 70 Gray's Inn Road London WC1X 8BT (GB)

Decision under appeal: Decision of the Examining Division of the

European Patent Office posted 15 December 2005 refusing European application No. 97930197.5

pursuant to Article 97(1) EPC 1973.

Composition of the Board:

Chairman: S. Steinbrener Members: W. Chandler

P. Schmitz

- 1 - T 0604/06

Summary of Facts and Submissions

- I. This appeal is against the decision of the examining division to refuse the application according to the state of the file on the grounds that the subject-matter of claims 1 and 8 was not new (Article 54(2) EPC) over the disclosure of GLOMOP GROUP: "GloMop: Global Mobile Computing By Proxy", 13 September 1995, University of California, Berkley, California, US, XP002094009, pages 1 to 12 (D1). The decision also cited EP-A-0 647 076 (D2).
- II. In the statement setting out the grounds of appeal, the appellant requested that the decision be set aside and that a patent be granted on the basis of claims 1 to 8 filed therewith containing minor amendments to claim 1.
- III. In the communication accompanying the summons to oral proceedings, which the appellant requested on an auxiliary basis, the Board summarised the issues to be discussed and tended to agree with the examining division's conclusions. In a response, the appellant filed amended claims 1 to 8. In a subsequent letter the appellant made a further minor amendment to claim 1.
- IV. At the oral proceedings the appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of claims 1 to 8 filed with the letter dated 29 April 2008 and amended with the letter dated 1 May 2008 (main request), or on the basis of claims 1 to 8 of a first or second auxiliary request filed during the oral proceedings. At the end of the oral proceedings the Chairman announced the decision.

- 2 - T 0604/06

V. Claim 1 of the main request reads as follows:

"A method for coupling a selective call transceiver to a widely distributed information source via a communication system (10) including a communication terminal (20) for communicating in operation with the selective call transceiver (18) and a server (22) operatively coupled to the communication terminal, the method comprising the step of:

operatively coupling the server (22) to the widely distributed information source (24), wherein the server contains agents for retrieving information, from the widely distributed information source, the method being characterized by the steps of:

originating, at the communication system, a request for information on behalf of the selective call transceiver, and retrieving the information from the widely distributed information source using the agents in response to the request, wherein the agents retrieve information customized for a given selective call transceiver (18)."

Claim 1 of the first auxiliary request replaces "at the communication system" in the first step of the characterising portion with "at the server (22) or the communication terminal (20)".

Claim 1 of the second auxiliary request replaces the same wording with "originating, at the server (22)".

VI. The appellant argued essentially as follows:

- 3 - T 0604/06

The communication system of the present invention made requests for information on behalf of the selective call transceiver or client (e.g. pager) and the agents in the server then got the requested information.

The wording of claim 1, "originating, at the communication system, a request for information on behalf of the selective call transceiver" defined that the request came from the communication system, not the client. Support for this amendment was found in the embodiments.

In the geographically based retrieval embodiment, at page 3, line 28 to page 4, line 6, the request for local information came from the communication system based on the user's location.

In the auto searcher embodiment at page 5, lines 1 to 7, the selective call transceiver could request specific stock information based on user preferences and the agents could periodically scan prices. The important point was that the selective call transceiver made no further requests.

In the embodiment of keeping statistics on users and usage patterns and acting or making suggestions in dependence thereon at page 6, lines 19 to 24, the server issued commands on behalf of the client.

The customising embodiment at page 10, line 27 to page 11, line 8, read as follows:

"Ideally, inputs from the communication system automatically include all the constraints associated

- 4 - T 0604/06

with capacity, location, and possibly user profiles that are retained or observed by the system. For instance, such user profiles can contain the particular limitations of the selective call transceiver used by the user (whether it has sufficient memory, handles voice, text only, graphics only, or any combination of the preceding), or the usage patterns of the user based on location (viewing New York Times when in New York and the Miami Herald when in South Florida). In any event, the server would be able to handle much of the processing since the selective call transceiver is preferably a two-way pager using a communication system that is a non-real-time store-and-forward paging system."

Thus, the request came from the communication system.

In the document request model of section 3.3 of the GloMop system of D1, the document request always came from the client. According to page 10, lines 5 to 7 of D1, in order to request a document from the proxyserver, the client (mobile) had to pass a "document locator, specifying how the source document may be retrieved ...". In section 2.5 on page 8, D1 did mention 'agents' and stated that the agent was a document request, which was characterised, as being "a long-lived document request that carries very low priority, i.e. one whose semantics are 'do whatever is necessary to get the information, and I'll check back with you later.'" However, D1 did not specify the environment in which agents would run.

The agent disclosed by Dl was not the same as the agent that was the subject of claim 1 of the main request. In

- 5 - T 0604/06

claim 1 of the main request, information was retrieved from the widely distributed information source using the agents in the server in response to a request originating from the selective call transceiver. As stated explicitly in Dl, the agent was the request; the agent did not obtain information from a widely distributed network like the internet in response to a request from a selective call transceiver as claimed.

The invention thus differed in that the request came from the communication system, i.e. the combination of the server and the communication terminal, and the information was customised for a given selective call transceiver.

According to the invention, the user could retrieve information specific to the selective call transceiver with less user input and less signalling over the network. This increased the system capacity and the battery life of the selective call transceiver.

The objective problem was therefore how to retrieve relevant data without incurring an overhead.

D1 did not disclose or suggest that a request for information originated at the communication system, i.e. at the communication terminal or the server. In D1, the client device sent the information request (i.e. document request) to the proxy server. Furthermore D1 did not disclose that the information was customised for a given selective call transceiver as claimed in amended claim 1.

Reasons for the Decision

- 1. The appeal complies with the requirements referred to in Rule 101(1) EPC and is therefore admissible.
- 2. The application relates to internet access via a mobile wireless device (Figure 1). Essentially, a selective call transceiver 18 (e.g. a mobile wireless device such as a pager) sends a request for information to a server 22 via a communication terminal 20. The server 22 retrieves the information from the "widely distributed information source" 24 (e.g. the World Wide Web) using "agents" (essentially programs for retrieving information according to predefined criteria).
- 3. It is common ground that D1 is the closest prior art. D1 describes a system for "global mobile computing by proxy" (GloMop), which enables mobile devices to connect to the Internet via a proxy process running on a server (see sections 1.1 and 1.2). Three parts of the disclosure are of particular relevance. Firstly, the proxy services described in section 1.3, that retrieve information ("documents"; page 2, last two lines) and, for example, customise information for a PDA's screen (page 3, first example). This is said at the end of section 1.3 to maximise the client's limited computing and network resources. Secondly, the description of "Agents" in section 2.5. Thirdly, the document-centric request model in section 3.3, whereby the proxy retrieves documents for a client according to criteria including a list of data types that the client is prepared to accept.

- 7 - T 0604/06

- 4. It is also common ground that the subject-matter of claim 1 differs at most from D1 by the features of the characterising portion, namely the use of the agents and the origin of the request for information.
- During the examination proceedings, the argument was mainly over whether D1 disclosed "agents" for retrieving information "customized for a given selective call transceiver". The examining division thought it did, in particular at point 3.1 of their communication of 29 August 2003, and refused the application for lack of novelty, rightly in the opinion of the Board.
- The term "agent" is very broad, but the Board considers 6. that at least some form of "agent" was common general knowledge at the priority date of this application since the concept of an agent can be traced back to Hewitt's Actor Model in the '70s (see e.g. Hewitt C.: "Viewing control structures as patterns of passing messages", Artificial Intelligence, 8(3)1977, pages 323 to 364). Thus, notwithstanding the word's connotations in plain English, a software agent may generally be defined as a piece of software that acts for a user or other program in a relationship of agency. This is in line with the description of "Agents" in section 2.5 of D1 as being "a generalization of a long-lived document request that carries very low priority, i.e. one whose semantics are 'do whatever is necessary to get the information, and I'll check back with you later.'" Although this passage explicitly discloses only a specific form of agent as a document request, it is clear from the fact that the agent must "do whatever is necessary to get the information" that it has some

autonomous function and can undertake various actions on behalf of the requester. Moreover, since they are said to be "run on the proxy side", their environment is clearly the server as in the invention.

- 7. D1 also gives, at the end of section 1.2, another description of such proxy processes running on a server that provide services to the client and, in section 1.3, gives examples of various types of image data conversions. The Board has no doubts that these processes also fulfil the above definition of an agent in general, even if they are not meant to be examples of the specific agents mentioned in section 2.5. Moreover, the first example of such a process converts from a GIF image to a thumbnail so that it can be displayed on a PDA's screen. Further examples are converting from PostScript to ASCII, or JPEG to H.261. In the Board's view, this results in information that is "customized" to the PDA. Thus, in the Board's view D1 discloses the agents of the second feature of the characterising portion of claim 1.
- 8. In appeal, the appellant has amended the claim 1 of the main request to emphasise that the request for information is "originating" at the communication system. At the oral proceedings, the representative explained that this feature was supposed to exclude the possibility that the request for information came from the selective call transceiver as in D1. However, the Board is of the view that essentially all requests for information must "originate" in some form or another from the user. Hence, the feature would only exclude direct requests from the user, but would cover any request from the user that is in some way modified by

the communication system and therefore that "originates" in the modified form from there. Thus, in the geographically based retrieval embodiment, the request is conditioned by the data concerning the user's location. In the auto searcher and customising embodiments, the request is based on stored user preferences.

- 9. The appellant derived a problem based on this feature along the lines of increasing the system capacity and the battery life of the selective call transceiver.
- The Board finds no direct support for the amendment to "originating" the request at the communication system. In particular, nowhere in the application is this idea disclosed as a distinct aspect of the invention, along with its effect and/or advantages. The best that the representative could offer at the oral proceedings was the statement in the keeping statistics embodiment, at page 6, lines 24 to 26, that "the system could reconfigure the user's device to use a more individual protocol to reduce the airtime that the user uses to communicate to the agent, and vice-versa." This is said to be able to save a great deal of channel capacity. However, this advantage follows from the whole embodiment and the use of agents in general.
- 11. The appellant also relies on the embodiments for indirect support for the "originating" concept. However, in the Board's view the feature is at best a placeholder to represent a common part of the mechanism for requesting information in the embodiments. Indeed, if it were more, it would be an unallowable extension of subject-matter. Thus, it is not necessary to

- 10 - T 0604/06

consider the admissibility of the feature in detail because it can be construed to cover all the mechanisms for requesting information in the embodiments cited in support of the amendment. If any one of these is obvious, the claim is unallowable. In the Board's view, however, at least two of these are obvious.

- 12. Firstly, as set out in the Board's communication, D1 suggests the idea of "user profiles" that affect the requests for information as in the customising embodiment described at page 10, line 16 to page 11, line 8 of the application. In addition to the examples of proxy processes in section 1.3 of D1, which the Board considers to be agents that result in information that is "customized" for a PDA's screen (see point 7, above), D1 also discloses in section 3.3, second paragraph, that the client "registers a list of data types it is prepared to accept". In the Board's view, such a list of data types is equivalent to the "user profile" as described in the embodiment, namely one that "can contain the particular limitations of the selective call transceiver used by the user (whether it has sufficient memory, handles voice, text only, graphics only, or any combination of the preceding)". Even if the registering mechanism in section 3.3 of D1 is not meant to apply to the above-mentioned proxy processes discussed in section 1.3 of D1, it would be an obvious solution to the problem of keeping track of which data types the client can accept.
- 13. Secondly, as argued by the examining division at point 5.1.3 of the communication of 23 September 2005 in connection with claim 3, the idea of using location information to affect the requests for information as

- 11 - T 0604/06

in the geographically based retrieval embodiment described at page 3, line 28 to page 4, line 6 of the application is an obvious possibility. The introductory paragraphs of D2 disclose requesting information from a server depending on the location of the client device. The feature of obtaining the location information from the base stations is acknowledged as being well known in the application at page 4, lines 1 to 3. In the Board's view, faced with the problem of providing useful information to the selective call transceiver of D1, the skilled person would consider customising the information in D1 using location information in this known way and arrive at the geographically based retrieval as an obvious possibility.

- 14. Finally, even if the "originating" feature were to be supported by some unspecified part of the disclosure, or to cover only some unspecified parts of the embodiments, the Board does not consider that it could involve an inventive step. As stated above, it is common general knowledge that an "agent" acts in analogy to a real-life agent. In the Board's view, this implies, or it is at least obvious, that such an agent has a certain degree of autonomy. Thus it would be capable of "originating" requests on behalf of the client, depending on the task it has to perform.
- 15. Accordingly, the subject-matter of claim 1 of the main request lacks an inventive step (Article 56 EPC 1973).

Auxiliary requests

16. Claim 1 of the first auxiliary request specifies that the request originates at "the server (22) or the

- 12 - T 0604/06

communication terminal (20)". The Board cannot find any support for the alternative that the communication terminal originates the request. The best that the representative could come up with at the oral proceedings was that in the geographically based retrieval embodiment, the user location came from the terminal rather than the server, but even that was not clear. However, the user location is not a request for information, but information that the system server uses to request related information, "based on the user location" as the description puts it. Thus this does not support the idea that the terminal originates the request for information.

- 17. Accordingly, claim 1 of the first auxiliary request contains an extension of subject-matter (Article 123(2) EPC).
- 18. Claim 1 of the second auxiliary request limits the originating of the request to be "at the server".

 However, in all of the preceding discussion, it has been assumed that this is the case, so that this request does not add anything new.
- 19. Accordingly, the subject-matter of claim 1 of the second auxiliary request lacks an inventive step (Article 56 EPC 1973).
- 20. There being no further requests, it follows that the appeal must be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

D. Sauter

S. Steinbrener