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# D E C I S I O N
# of 16 November 2004

**Case Number:** T 0367/00 - 3.5.3

**Application Number:** 90311083.1

**Publication Number:** 0424015

**IPC:** H04Q 3/66

**Language of the proceedings**: EN

**Title of invention:**
Multilocation queuing for telephone calls

**Patentee:**
AT&T Corp.

**Opponent:**
British Telecommunications public limited company

**Headword:**
Multilocation queuing/AT&T

**Relevant legal provisions:**
EPC Art. 52, 56, 100(b)

**Keyword:**
"Inventive step - no"

**Decisions cited:**
-

**Catchword:**
-

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Beschwerdekammern | Boards of Appeal | Chambres de recours

**Case Number:** T 0367/00 - 3.5.3

# D E C I S I O N
**of the Technical Board of Appeal 3.5.3**
**of 16 November 2004**

| | |
|---|---|
| **Appellant:** (Proprietor of the patent) | AT&T Corp.<br>32 Avenue of the Americas<br>New York, NY 10013-2412 (US) |
| **Representative:** | Buckley, Christopher Simon Thirsk<br>Lucent Technologies (UK) Ltd.<br>5 Mornington Road<br>Woodford Green<br>Essex IG8 0TU (GB) |
| **Respondent:** (Opponent) | British Telecommunications public limited company<br>81 Newgate Street<br>London EC1A 7AJ (GB) |
| **Representative:** | Williamson, Simeon<br>BT Group Legal<br>Intellectual Property Department<br>PP C5A<br>BT Centre<br>81 Newgate Street<br>London EC1A 7AJ (GB) |
| **Decision under appeal:** | **Decision of the Opposition Division of the European Patent Office posted 29 February 2000 revoking European patent No. 0424015 pursuant to Article 102(1) EPC.** |

**Composition of the Board:**

**Chairman:** A. S. Clelland
**Members:** D. H. Rees
M. B. Tardo-Dino

## Summary of Facts and Submissions

I. This is an appeal by the proprietor of European Patent No. 0 424 015 against the decision of the opposition division to revoke the patent.

II. The opponent (respondent) had requested the revocation of the patent on the grounds that the invention lacked novelty and/or did not involve an inventive step (Articles 100(a), 52(1), 54 and 56 EPC) with respect to the disclosure of *inter alia* the following documents:

D1: J.T. Wilson et al., "Network Automatic Call Distribution System", Telecom Journal of Australia, Vol. 33, No. 2, pages 169 to 176, 1983

D2: P.A. Brown et al., "Automatic Call Distribution System ASDP 162", Telecom Journal of Australia, Vol. 29, No. 3, pages 245 to 255, 1979

D9: J. Gechter et al., "ISDN Service Opportunities in the Intelligent Network", Proc. National Communications Forum 43(1), pages 548 to 551, 1989

D11: G.W. Gawrys, "Ushering in the Era of ISDN", AT&T Technology, Vol. 1, No. 1, pages 2 to 9, 1986

In addition it had been argued that the invention was not disclosed in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art (Article 100(b) EPC).

III. In the decision under appeal, dispatched on 29 February 2000, the opposition division held that the invention

was sufficiently clearly and completely disclosed to be carried out and that the claimed subject-matter was novel, but that it did not involve an inventive step in the light of the disclosure of documents D1 and D2 taken in combination with the common general knowledge of the person skilled in the art.

IV. Notice of appeal was filed, and the fee paid, with a letter dated 29 March and received 31 March 2000. A statement of grounds of appeal, together with an amended set of claims, was submitted in a letter dated 7 April and received 10 April 2000. Further amendments were submitted in reaction to objections by the respondent and comments by the board.

V. The independent claims of the final version of the claims, submitted on 10 June 2004, read as follows:

"1. A method of completing calls from a caller (101) to a destination customer served by a plurality of agent teams (103, 105), comprising:
accessing a database (120) for obtaining data to route a call to first ones of said teams;
determining whether a circuit to any of said first teams is available (304);
if a circuit to one of said first teams is available, completing the call to an available circuit of one of said first teams (306);
characterised in that the method further comprises
if it is determined that no circuit is available to any of said first teams, placing said routed call in a queue (210, 215, 217) for second ones of said teams (308, 318, 320, 312, 314, 316), said queue being shared by a plurality of egress switches (104, 106) that route

calls towards agent teams said second ones of said teams being located in at least two geographically separated locations served by different egress switches; and
upon subsequently determining that a circuit is available to one of said second teams (400), extending a call in said queue toward said determined available circuit (406, 408) via the egress switch that serves the geographical location in which the one of said second teams is located;
wherein said first ones and said second ones of said teams may be different groups of teams.

12. Database means (120) comprising:
a plurality of queues (210, 215, 217);
means (200) for maintaining circuit availability data for a plurality of agent teams;
means, responsive to a request message from a switching system for routing data for a call to a destination, for identifying a first plurality of agent teams for serving said call (220), for determining whether any of said first plurality has an available circuit (200), and for sending a first routing message to said switching system to route said call to one of said first plurality of teams having an available circuit;
characterised in that the database means further has means for placing said call in a queue for a second plurality of agent teams if none of said first plurality has an available circuit (308, 309, 318, 320, 312, 323, 324, 314, 316), said queue being shared by a plurality of egress switches (104, 106) that route calls toward agent teams, said second ones of said teams being located in at least two geographically

separated locations served by different egress switches; and

means responsive to receipt of a disconnect message making a circuit of a specific one of said second plurality of agent teams available (400), for sending a routing message to the respective egress switch to route a call in the queue to said specific agent team (408) via the egress switch that serves the geographical location in which the specific one of said second plurality of agent teams is located."

VI. At the oral proceedings the appellant requested that the decision under appeal be set aside and that the patent be maintained on the basis of claims 1 to 12 as filed with letter dated 10 June 2004. He objected to the admissibility of D11 and D9, which the respondent referred to in the course of the proceedings.

VII. The respondent requested that the appeal be dismissed.

VIII. The decision of the board was announced at the end of the oral proceedings.

## Reasons for the Decision

1. *Late filed documents*

The board was able to reach a decision without considering the contents of documents D9 and D11; no decision on whether these documents should be taken into account was therefore necessary.

2. *Added subject-matter*

The respondent argued that the amendment of the independent claims replacing "communication switching systems" in the originally filed and the granted claims by "egress switches" constituted added subject-matter. The board agrees that, since the "communication switching systems" had, at some stages of the proceedings, been identified with automatic call distributors (ACDs), it must be considered whether this amendment gives rise to a combination of features not originally disclosed. However, where the original application refers to a "switching system" it does so in terms indicating that the switching system is connected to an ACD, rather than being the ACD - see column 2, lines 38 to 41 of the A2 publication, "The number of calls that may be accepted is limited by the number of circuits connecting a switching system to the ACD." Figure 1 shows ACDs connected to egress switches. Further, at column 9, lines 5 to 10 of the A2 publication, the description also indicates that the ACD is inessential. The skilled person would therefore, on reading the application as filed, come to the conclusion that egress switches were intended to be an instance of the term "communication switching systems" specified in the claims. The restriction of the claimed subject-matter to this instance in the current request therefore does not add subject-matter to the disclosure of the patent; the amended claims accordingly comply with Article 123(2) EPC.

3. *Sufficiency of disclosure*

The respondent also argued that the amended claims failed to comply with Article 83 EPC in that the skilled person would not know, in implementing the method specified in claim 1, whether when completing a call the "first ones" and "second ones of said teams" should or should not be the same groups of teams, since the claim only specifies that they "may" be different. However, the description makes it clear that whether the groups are the same or not for any particular call depends on the parameters of that call, for example, the number dialled and the area code of the caller. Further the description clearly discloses how to employ such parameters, using queues, to determine what the first and second groups of teams are, and therefore incidentally whether or not the first and second groups are different.

Moreover, even if the board were to accept the respondent's arguments that the skilled person would not know what to implement, it would appear that the objection would properly be one of lack of clarity rather than one of lack of sufficiency, since the respondent did not claim that the skilled person would be unable to implement both the alternatives, i.e. where the groups were the same and where they were different. In fact, the argument is really that the skilled person would not know what fell within the scope of the matter for which protection had been sought, i.e. that the claimed subject-matter was not clear. However, lack of clarity is not a ground for opposition, and only becomes an issue where it arises from amendments made during opposition or appeal. In

the case in point, any potential lack of clarity in the claimed subject-matter caused by the formulation of this feature also affected the patent as granted.

4. *Clarity and interpretation of claims*

4.1 The board notes that a number of unclear terms are used in the granted claims, for example "team" and "geographically separated locations". However, since lack of clarity is not a ground of opposition, the board has to interpret the claimed subject-matter as it judges the skilled person would.

4.2 In particular, the board notes that claim 12 is directed to "database means". However, since it is formulated in terms of apparatus elements, e.g. "means ... for identifying ..., for ... determining ..., and for sending ...", the board interprets this as a claim to an apparatus.

4.3 The board interprets "egress switch" to mean a switch, i.e. a device having switching or routing functions, to which terminal equipment, such as an ACD (Figure 1) or an agent's telephone (column 9, lines 8 and 9, A2 publication) may be directly connected.

5. *Novelty and inventive step*

5.1 D2 describes an automatic call distribution system (ACD) for use by airlines, credit companies, betting agencies, etc. (Abstract). D1, which references D2 (page 171, column 1, lines 40 and 41), describes the use of this ACD, with enhancements, to provide Telecom Australia's manual assistance services (e.g. directory enquiries).

It was not disputed that these two documents could be treated as disclosing a single instance of the state of the art in the sense of Article 54(2) EPC.

5.2 D1/D2 discloses:

A method of completing calls from a caller to Telecom Australia's manual assistance services organisation, served by a plurality of agent teams (D1, page 169, column 2, lines 27 and 28, "... to distribute these calls evenly to dedicated operator groups");

"accessing a database for obtaining data to route a call to first ones of said teams; determining whether a circuit to any of said first teams is available; if a circuit to one of said first teams is available, completing the call to an available circuit of one of said first teams" the method further comprising "if it is determined that no circuit is available to any of said first teams, placing said routed call in a queue," (D2, page 245, column 2, lines 11 to 16, "When a call arrives in a trunk group, the overflow pattern is consulted to decide to which operator group the call should be directed. The overflow pattern specifies, for each trunk group, a first choice operator group and up to three alternative operator groups. If a free operator is still not found the call goes into delay in the associated trunk group queue");

the queue being "for second ones of said teams", and "upon subsequently determining that a circuit is available to one of said second teams, extending a call in said queue toward said determined available circuit," (D2, page 245, column 2, lines 25 to page 247,

column 1, line 2, "When an operator becomes available, the operator group number is used to consult the priority pattern to decide from which trunk group a waiting call should be taken. The priority pattern specifies for each operator group, a first choice trunk group and up to three alternative trunk groups");

"said second ones of said teams being located in at least two geographically separated locations," (D1, page 169, Figure 1, "Manual assistance centres (MAC) located in metropolitan or country locations");

"wherein said first ones and second ones of said teams may be different," - the skilled person would understand the above mentioned "overflow patterns" and "priority patterns" of D2 to be independent of each other, so that the set of operator groups which is first checked before putting a call on a queue is not necessarily the same as the set of operator groups which will take a call off the queue.

5.3 Hence the only features of claim 1 not explicitly disclosed by D1/D2 are that different geographical locations are served by different egress switches, and that calls are completed to "a destination customer", rather than to the manual assistance services organisation. As to the latter, the appellant argued that this was an important difference, and indeed made D1 an inappropriate starting point for judging whether the claimed subject-matter involved an inventive step. However, the board cannot see any relevant technical implication in this feature. Perhaps the supplier-customer relationship might imply different line usage monitoring for billing, but this aspect is not

discussed at any point in the disputed patent, nor can the board see that this has any effect on the rest of the claimed features. Indeed, it is not unlikely that the manual assistance services organisation would have been treated as a customer of the network service provider within an overall organisational structure based on "cost centres".

5.4 As to teams at different geographical locations being served by different egress switches, the board agrees with the appellant that D1/D2 does not disclose this; rather it discloses a system of "four-wire speech paths" to remote groups (D1, page 173, Figure 4), suggesting direct connections between the "operator control magazine" terminal equipment and the Network ACD controlling the distribution of calls. However, the board considers that the skilled person would inevitably, faced with the problem of implementing connections to remote operator groups, i.e. connections where the conventional short-range circuits were not appropriate, consider using the pre-existing infrastructure for connecting calls to the remote locations. Such pre-existing infrastructure would conventionally include egress switches. Therefore it would have been a mere design alternative to replace the direct connections of D1/D2 by elements of the public switched toll network (PSTN), including egress switches. Two operator groups, one "metropolitan" and one in the country (D1, page 169, Figure 1) would, moreover, normally be served by different egress switches.

5.5 The appellant suggested that in the invention the use of plural egress switches would enable more efficient

routing of calls from callers to agent teams than would be the case in D1/D2, where all calls would be completed via the Network ACD. The board agrees that in a simple implementation of the system of D1/D2 using the pre-existing infrastructure, including egress switches, as discussed above, the skilled person might well route all calls via the Network ACD. However, this would still satisfy the claim.

5.6 Hence the board concludes that the subject-matter of claim 1 of the appellant's only request does not involve an inventive step in the light of the common general knowledge of the skilled person applied to the teaching of D1 and D2 taken together. Claim 12 specifies substantially equivalent features and for similar reasons the board comes to the same conclusion with respect to its subject-matter.

6. The appellant's request must therefore be refused.

## Order

## For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

D. Magliano A. S. Clelland