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**Datasheet for the decision
of 30 October 2008**

Case Number: T 1732/07 - 3.5.03

Application Number: 95918753.5

Publication Number: 0710425

IPC: H04Q 7/38

Language of the proceedings: EN

Title of invention:

Cellular mobile radiocommunication system soft-handover scheme

Patentee:

NTT DoCoMo, Inc.

Opponent:

Qualcomm, Incorporated

Headword:

Soft-handover scheme/NTT

Relevant legal provisions:

EPC Art. 104(1), 114
RPBA Art. 13

Relevant legal provisions (EPC 1973):

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Keyword:

"Late-filed document - admitted (yes)"
"Remittal (yes)"
"Different apportionment of costs incurred for oral proceedings before the board of appeal (no)"

Decisions cited:

G 0009/91, T 1002/92

Catchword:

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Case Number: T 1732/07 - 3.5.03

D E C I S I O N
of the Technical Board of Appeal 3.5.03
of 30 October 2008

Appellant I: NTT DoCoMo, Inc.
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Decision under appeal: Interlocutory decision of the opposition
division of the European Patent Office posted
1 August 2007 concerning maintenance of
European patent No. 0710425 in amended form.

Composition of the Board:

Chairman: A. S. Clelland
Members: F. van der Voort
M.-B. Tardo-Dino

Summary of Facts and Submissions

- I. Both the proprietor and the opponent filed an appeal against the decision of the opposition division finding European patent No. 0 710 425 in amended form to meet the requirements of the EPC.
- II. The opposition was filed against the patent as a whole and on the grounds that the claimed subject-matter was not new and did not involve an inventive step (Article 100(a) EPC) and on the ground that it contained subject-matter which extended beyond the content of the application as filed (Article 100(c) EPC).

In support of the arguments the opponent referred, *inter alia*, to the following document:

D1: EP 0 522 773 A.

- III. Following oral proceedings, the opposition division held that the patent in amended form according to a fourth auxiliary request met the requirements of Article 123(2) EPC and that the claimed subject-matter was new and involved an inventive step.

With respect to a main request the opposition division held that claim 9 thereof did not meet the requirements of Article 123(2) EPC. The same was held, *mutatis mutandis*, in respect of claim 8 of a first auxiliary request.

A second auxiliary request was rejected on the ground that the subject-matter of claim 1 lacked an inventive step.

More specifically, it was held that the subject-matter of claim 1 differed from the method disclosed in D1 in that, according to claim 1, the identification information was attached to the generated packets at the mobile station, whilst according to the method of D1, which related to a system with synchronised radio links, the identification information was attached at the base station. It would however have been obvious for the skilled person, when starting out from D1 and faced with the problem of adapting the system of D1 to a system with an unsynchronised radio link, to attach the identification information one step earlier, i.e. at the mobile station instead of the base station. The same reasoning applied, *mutatis mutandis*, to claim 1 of the third auxiliary request.

With respect to claim 1 of the fourth auxiliary request it was held that D1 did not disclose the step of "at the mobile station, receiving the packets from the upper device through the base stations, measuring a reliability information indicating a reliability of each packet received from each base station, and composing reception packets from the packets received from the base stations, according to the identification information attached to each packet and the reliability information measured for each packet". The opposition division noted that D1 was silent about how the received packets were processed at the mobile station and held that, starting out from D1, the above distinguishing feature solved the problem of increasing the reliability of the reception at the mobile station at a time of simultaneous communication of the mobile station with two base stations. It further held that it would not have been obvious for the person skilled in the art to

arrive at the claimed method, even though it was acknowledged that D1 used the same solution as in claim 1 at the base station side of the radio network, since the solution would have required a significant increase of the complexity at the mobile station. The same reasoning applied, *mutatis mutandis*, to independent apparatus claim 5.

- IV. In its statement of grounds of appeal the proprietor (hereinafter appellant I) requested that the decision under appeal be set aside and that the patent be maintained on the basis of the description and drawings as granted and either claims 1 to 11 of a main request or claims 1 to 10 of an auxiliary request, both sets of claims as filed with the statement of grounds of appeal.
- V. The opponent (hereinafter appellant II) requested in its statement of grounds of appeal that the decision under appeal be set aside and that the patent be revoked on the ground that the claimed subject-matter lacked an inventive step having regard to the disclosure of D1.
- VI. Each of the parties also filed a reply in response to the appeal as filed by the other party.
- VII. Both parties conditionally requested oral proceedings and the board summoned them to oral proceedings. In a communication accompanying the summons, the board drew attention to issues to be discussed at the oral proceedings. The parties were also informed that the appeals would be consolidated in accordance with Article 10(1) RPBA.

VIII. In preparation for the oral proceedings, appellant I (proprietor) filed with a letter dated 10 October 2008 a set of claims by way of a second auxiliary request and submitted arguments in support of its requests on file.

IX. In preparation for the oral proceedings, appellant II (opponent) filed with a letter dated 30 September 2008 the following documents:

- D5: "Recommendation GSM 05.10 - Radio Sub-system Synchronization", ETSI/TC SMG, ETSI/PT 12, version 3.5.1, October 1992;
- D6: "Design Study for a CDMA-Based Third-Generation Mobile Radio System", A. Baier *et al*, IEEE Journal on Selected Areas in Communications, Vol. 12, No. 4, May 1994;
- D7: "The Qualcomm CDMA Digital Cellular System", P. Karn, Qualcomm, Inc, Mobile & Location-Independent Computing Symposium, Cambridge, Massachusetts, 1993;
- D8: "Specification of Internet Transmission Control Program", V. Cerf *et al*, RFC 675, December 1974; and
- D9: "Transmission Control Protocol", Information Sciences Institute, University of Southern California, California, US, RFC 793, September 1981.

In the accompanying letter, appellant II (opponent) argued that each of these documents was highly relevant.

Further arguments in support of its request that the patent be revoked were submitted.

X. In response to the submissions by appellant II (opponent), appellant I (proprietor) filed a letter in which it requested that documents D7 to D9 be rejected as late filed. Reasons were given.

XI. Oral proceedings were held on 30 October 2008.

At the oral proceedings appellant I (proprietor) explicitly stated that he had no objection to the introduction into the proceedings of documents D5 and D6 if this merely served the purpose of submitting evidence in support of what was to be considered to be part of the common general knowledge at the relevant date.

Appellant I (proprietor) requested that the decision be set aside and that the patent be maintained on the basis either claims 1 to 11 of the main request or claims 1 to 10 of the (first) auxiliary request, both requests as filed with the statement of grounds of appeal, or claims 1 to 11 of the second auxiliary request as filed with the letter of 10 October 2008. Further, he requested that documents D7 to D9 not be admitted into the proceedings and, should the board admit D7 into the proceedings, that the case be remitted to the department of first instance and a different apportionment of costs be ordered, i.e. that appellant II (opponent) be apportioned the costs incurred by appellant I (proprietor) for the present oral proceedings.

Appellant II (opponent) requested that the decision under appeal be set aside and that the patent be revoked.

At the end of the oral proceedings the board's decision was announced.

- XII. The main request includes three independent claims, i.e. claims 1, 5 and 9.

Claim 1 of the main request reads as follows:

"A method of mobile communication in a mobile communication system formed by at least one mobile station (100), a plurality of base stations (120a, 120b), and an upper device (150) connected with the base stations (120a, 120b), the method comprising the steps of:

- (a) at the mobile station (100) generating packets from communication data to be transmitted, attaching identification information for identifying each packet to generated packets; and transmitting the packets with the identification information to the base stations (120a, 120b);
- (b) at each base station (120a, 120b), receiving the packets from the mobile station (100), measuring a reliability information indicating a reliability of each packet received at each base station (120a, 120b), attaching the reliability information to each packet received at each base station (120a, 120b), and transmitting the packets with the reliability information to the upper device (150); and
- (c) at the upper device (150), processing the packets received from the mobile station (100) through the

base stations (120a, 120b), according to the identification information and the reliability information attached to each packet."

Claim 5 of the main request reads as follows:

"A method of mobile communication in a mobile communication system formed by at least one mobile station (100), a plurality of base stations (120a, 120b), and an upper device (150) connected with the base stations (120a, 120b), the method comprising the steps of:

- (a) at the upper device (150), generating packets from communication data to be transmitted, attaching identification information for identifying each packet to generated packets, and transmitting the packets with the identification information to the mobile station (100) through the base stations (120a, 120b); and
- (b) at the mobile station (100), receiving the packets from the upper device (150) through the base stations (120a, 120b), measuring a reliability information indicating a reliability of each packet received from each base station (120a, 120b), and composing reception packets from the packets received from the base stations (120a, 120b), according to the identification information attached to each packet and the reliability information measured for each packet."

Claim 9 of the main request reads as follows:

"A mobile station device connected with a plurality of base stations via radio, for carrying out transmission and reception of packet data, the mobile station device comprising:

packet generation means (101) for generating packets from communication data to be transmitted;

identification information attaching means (102, 103, 104) for attaching identification information for identifying each packet to each of the packets generated by the packet generation means;

transmission means (106) for transmitting the packets with the identification information attached by the identification information attaching means;

reception means (221) for receiving packets transmitted from the plurality of base stations, and measuring a reliability information indicating a reliability of each received packet;

a packet selection means (230a, 230b) for selecting a plurality of packets having an identical identification information from received packets and a buffer means (233) for outputting the plurality of packets to a packet selection and composition means (234), wherein the packet selection and composition means (234) for [*sic*] selectively outputting a packet with a highest reliability among the plurality of packets having the identical identification information selected and outputted by the buffer means (233), according to the

reliability information measured for each packet by the reception means (221)."

Claim 1 of the main request is identical to claim 1 as granted and claim 1 of the second auxiliary request as decided upon by the opposition division, whilst claims 5 and 9 of the main request are identical to claims 1 and 5, respectively, of the fourth auxiliary request as decided upon by the opposition division, except that, in claim 9, last paragraph, "selectively outputs" was replaced by "for selectively outputting".

In view of the board's decision it is not necessary to give details of the dependent claims of the main request or any one of the claims of the auxiliary requests.

Reasons for the Decision

1. Admissibility of document D7

- 1.1 Appellant I argued that D7 was late-filed, since the filing of D7 could not be seen as a response to the board's communication. D7 should therefore not be admitted.

The board agrees that the submission of D7 was not motivated by the board's communication. In particular, D7 neither represents common general knowledge, as would, e.g., a textbook, nor provides evidence that the sequence numbering of the data frames to be transmitted via the up- or downlink is part of the common general knowledge. D7 is therefore late-filed.

1.2 The fact that a document is late-filed is however not a sufficient reason for not admitting it into the proceedings. According to Article 114(2) EPC and Article 13 RPBA, the board has a discretion as to whether or not to admit a late-filed document. This 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 (Article 13(1) RPBA). Further, amendments sought to be made after oral proceedings have been arranged shall not be admitted if they raise issues which the board or the other party or parties cannot reasonably be expected to deal with without adjournment of the oral proceedings (Article 13(3) RPBA).

Following the established case law of the Boards of Appeal on exercising this discretion, a late-filed document may be admitted into the proceedings if it is *prima facie* highly relevant in the sense that it is highly likely to prejudice the maintenance of the patent (see, e.g., T 1002/92, OJ EPO 1995, 605).

In the board's view, it is in the public interest that a late-filed document which is *prima facie* highly relevant is not excluded from consideration in the centralised procedure before the European Patent Office.

1.3 In the present case, D7 is considered to be *prima facie* highly relevant in relation to the subject-matter of claims 1, 5 and 9 of the main request for the following reasons:

D7 is an article which according to the cover sheet was presented at the Mobile & Location-Independent

Computing Symposium, Cambridge, Massachusetts, in 1993, i.e. before the earliest priority date (20 May 1994) of the patent in suit. D7 therefore constitutes, *prima facie*, state of the art in the sense of Article 54(2) EPC. Appellant I argued that further proof was required as to the publication date of D7. For the decision as to whether or not D7 is *prima facie* highly relevant, the board considered that further proof as to its publication date was not necessary.

D7 relates to a method of transmitting data packets over an IS-95 radio channel (see the first page, section "Introduction", third paragraph, and the third page, section "Adapting IS-95 for Data Services", first paragraph). In order to improve the performance in relation to the transmission of data packets via the radio channel in a mobile radio system, a radio link protocol (RLP) is said to be layered on top of the existing IS-95 architecture (see the third page, section "A Radio Link Protocol (RLP) For IS-95", first and third paragraphs). The RLP apparently first encodes user packets, queues the resulting byte stream for transmission, and then divides the byte stream into IS-95 frames for transmission, in which each frame that carries user data is sequence numbered modulo 256 (see the fourth page, second and third paragraphs).

A prototype IS-95 data service is said to use PC clones at both the mobile and base stations running the TCP/IP package, with RLP and IS-95 interface drivers added (see the fourth page, section "Prototyping and Testing", first paragraph).

D7 further refers to IS-95 supporting soft handoff, which allows the mobile to combine the independently fading signal components from several cells, and the base station to select the best cell to receive the mobile on a frame by frame basis (see the section "CDMA System Advantages", point 5 ("Soft Handoff"), first paragraph).

Hence, D7 discloses, at least *prima facie*, that identification information, i.e. sequence numbers, is attached to generated (sub-)packets, i.e. the data frames, at the mobile station, cf. claim 1. It is moreover noted that, whereas claim 1 is concerned with a data transmission via the uplink, claim 5 exclusively and claim 9 additionally includes features relating to a data transmission via the downlink. In this respect, D7 discloses, at least *prima facie*, a data packet transmission in both directions, in which the mobile is capable of combining independently fading signal components from several cells.

Appellant I (proprietor) argued that, since appellant II (opponent) did not refer to D7 in relation to the question of novelty, but only in combination with D1 in relation to inventive step, D7 could not be considered as *prima facie* highly relevant.

In the board's view, however, in order for a late-filed document to qualify as *prima facie* highly relevant, it is not necessary that it be novelty destroying. The decisive point is whether or not it is *prima facie* highly likely to prejudice the maintenance of the patent, which may also be due to a lack of inventive step of the claimed subject-matter.

Appellant I further argued that even though D7 disclosed the feature of sequence numbering of generated packets at the mobile station, it did not disclose the step of combining packets at the upper device. The board notes however that whether or not D7 discloses the step of combining packets at the upper device does not appear to be relevant, since the feature of processing the packets at the upper device was held by the opposition division to be known from D1, see claim 1 of the main request and points III and XII above.

For these reasons, the board concluded that D7 is *prima facie* highly relevant in relation to the question of whether or not the subject-matter of claims 1, 5 and 9 of the main request involves an inventive step.

- 1.4 Appellant I argued that, since it received D7 only about two weeks before the oral proceedings, the appellant did not have enough time to study it in detail and that already for this reason D7 should not be admitted.

The board agrees that, even though D7 is a rather short document, a period of about two weeks is insufficient in order to determine whether or not D7 is relevant to the claimed subject-matter and whether or not it would make amendments to the claims on file necessary, given that appellant I is located in Japan. However, the admission of D7 into the proceedings in combination with a remittal of the case to the department of first instance for further prosecution would give appellant I sufficient time to consider these issues. The argument

was therefore not convincing.

- 1.5 Appellant I further argued that the purpose of the appeal procedure was not to assess new facts; the opponent's case had to be complete from the outset and anything else would violate the requirement of procedural economy and would deprive the proprietor, whose patent was at stake, of due consideration of the facts by two instances. D7 should therefore not be admitted.

The board agrees that the appeal procedure is to be considered a judicial procedure (see G 9/91, OJ EPO 1993, 408). However, Article 114 EPC and Article 13 RPBA make it clear that the board has a discretion in admitting late-filed evidence into the proceedings. Further, by remitting the case to the department of first instance, appellant I would not be deprived of a due consideration of the facts by two instances. The argument was therefore not convincing.

- 1.6 Appellant I further argued that D7 originated from appellant II (opponent) and was therefore already known to the opponent at the time of filing the opposition. The filing of D7 thus constituted an abuse of procedure and, for this reason, D7 should not be admitted.

The board notes that at the oral proceedings appellant II (opponent) stated that it only recently became aware of D7. In the absence of evidence to the contrary, the board saw no reason to call this statement into question. Similarly, there is no evidence that the late submission was made deliberately for tactical reasons. The argument was therefore not convincing.

1.7 The board accordingly exercised its discretion under Article 114(2) EPC at the oral proceedings to admit D7 into the proceedings.

2. *Remittal*

In order to give appellant I (proprietor) sufficient time to study D7 and consider whether amendment is necessary and in order not to deprive appellant I of two instances, the case is to be remitted to the department of first instance for further prosecution.

3. *Apportionment of costs*

3.1 The request that appellant I (proprietor) be awarded the costs it incurred for the present oral proceedings before the board is refused, since the oral proceedings would have been held even if D7 had not been admitted into the proceedings. In this respect the board notes that appellant I conditionally requested oral proceedings.

3.2 For the reasons set out above, the late filing of D7 has made it necessary to remit the case to the department of first instance for further prosecution. This will most likely give rise to costs for the appellant I which would not have arisen if appellant II had not filed D7. However, in the board's view, the question of whether or not costs are to be apportioned differently is to be decided upon by the department before which these costs occur. Hence, in the present case, it is up to the opposition division to decide whether to order, for reasons of equity, a different apportionment of costs in connection with the further prosecution of the case before it (Article 104(1) EPC).

4. In view of the above, it is not necessary to consider any of the auxiliary requests.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. D7 is admitted into the proceedings.
3. The case is remitted to the department of first instance for further prosecution.
4. The request for apportionment of costs is refused.

The Registrar:

The Chairman:

D. Magliano

A. S. Clelland