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Datasheet for the decision of 26 September 2014

Case Number: T 0480/12 - 3.5.05

Application Number: 02026087.3

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IPC: H04L12/56, H04Q7/38

Language of the proceedings: EN

Title of invention:
Packet data transmission scheduling technique

Patent Proprietor:
LG Electronics, Inc.

Opponent:
Telefonaktiebolaget L M Ericsson (publ)

Headword:
Packet data transmission scheduling technique/LG

Relevant legal provisions:
EPC 1973 Art. 84
EPC Art. 100(c)
RPBA Art. 13(1), 13(3)

Keyword:
Admissibility of appeal - (yes)
Amendment occasioned by ground for opposition - late-filed request (admitted)
Claims - clarity after amendment (no) - support in the description (no)
Amendments - extension beyond the content of the application as filed (yes)

Decisions cited:
T 1129/97, T 0689/09

Catchword:

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Case Number: T 0480/12 - 3.5.05

D E C I S I O N
of Technical Board of Appeal 3.5.05
of 26 September 2014

Appellant: (Patent Proprietor)	LG Electronics, Inc. 20, Yoido-dong, Youngdungpo-ku Seoul (KR)
Representative:	Ter Meer Steinmeister & Partner Patentanwälte Mauerkircherstrasse 45 81679 München (DE)
Respondent: (Opponent)	Telefonaktiebolaget L M Ericsson (publ) 16 483 Stockholm (SE)
Representative:	Hoffmann Eitle Patent- und Rechtsanwälte PartmbB Arabellastraße 30 81925 München (DE)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted on 20 December 2011 revoking European patent No. 1318632 pursuant to Article 101(3)(b) EPC.**

Composition of the Board:

Chair	A. Ritzka
Members:	M. Höhn
	G. Weiss

Summary of Facts and Submissions

I. This appeal is against the decision of the opposition division, posted on 20 December 2011, revoking European patent No. 1318632 on the ground of Article 100(c) and 123(2) EPC.

II. The notice of appeal was received on 23 February 2012. The appeal fee was paid on the same day. The statement setting out the grounds of appeal was received on 23 March 2012.

III. The appellant (patent proprietor) requested that the decision under appeal be set aside and that a patent be granted on the basis of a main request or auxiliary requests I to III (all filed with the statement setting out the grounds of appeal by letter dated 23 February 2012).

The respondent (opponent) requested that the appeal be dismissed.

Oral proceedings were requested on an auxiliary basis by both parties.

IV. A summons to oral proceedings, to be held on 26 September 2014, was issued on 20 February 2014. In a communication dated 05 June 2014 the board expressed the preliminary opinion that the appeal was admissible and that was minded to admit the appellant's requests. Regarding the main request and auxiliary request I the board tended to consider that the subject-matter of claims 1 and 7 did not appear to fulfil the requirements of Articles 100(c) EPC 1973 and 123(2) EPC while auxiliary requests II and III in addition did not

appear to fulfil the requirements of Article 84 EPC 1973. The board gave its reasons for the objections and explained why it did not consider the appellant's arguments to be convincing. The board further announced its intention, if the above objections were overcome during the appeal proceedings, to remit the case, within its discretion according to Article 111(1) EPC 1973, to the department of first instance, in particular in order to give both parties the opportunity to have the requirements of Articles 52(1) EPC and 100(a) EPC 1973 examined and decided upon by two instances.

V. By letter dated 25 August 2014 the respondent submitted further arguments why it considered the appellant's requests to be inadmissible and not to fulfil further requirements of the EPC.

VI. By letter dated 26 August 2014 the appellant submitted four sets of claims according to auxiliary requests II to V together with arguments supporting these requests, replacing previous auxiliary requests II and III.

VII. By facsimile dated 19 September 2014 the respondent submitted further arguments regarding the alleged inadmissibility of the requests.

VIII. By letter dated 19 September 2014 the appellant submitted further arguments in reaction to the respondent's letter dated 25 August 2014.

IX. Oral proceedings took place on 26 September 2014 attended by both parties. During the course of the oral proceedings the appellant withdrew the main request and auxiliary requests I to III and filed new auxiliary requests IV to VII.

X. Independent claim 1 according to auxiliary request IV reads as follows:

"1. A method of transmitting data in a High Speed Downlink Packet Access (HSDPA) system operated in a mobile communications system having a radio interface protocol with an upper layer, a MAC-hs layer including a buffer (201), and a physical layer (205), the method is performed by the MAC-hs layer, the method comprises the step of:
- receiving real-time data and non-real-time data from the upper layer;
characterized by
- receiving (S212) buffer status information from the buffer (201);
- receiving (S213) channel status information from the physical layer (205);
- obtaining (S211) scheduling control information indicating a data transmission delay of the real-time data and indicating a priority of the non-real-time data;
- scheduling (S214) the data in accordance with the buffer status information, the channel status information, and the scheduling control information; and
- transmitting (S215) the data through the physical layer according to the scheduling to support real-time and non-real-time data services;
- wherein the data transmission delay occurs within a RLC layer and within the MAC-hs layer or within a RNC (121, 131) and a within [sic] Node B (122, 133)."

XI. Independent claim 1 according to auxiliary request V reads as follows:

"1. A method of transmitting data in a High Speed Downlink Packet Access (HSDPA) system operated in a mobile communications system having a radio interface protocol with an upper layer, a MAC-hs layer including a buffer (201), and a physical layer (205), the method is performed by the MAC-hs layer, the method comprises the step of:
- receiving real-time data and non-real-time data from the upper layer;
characterized by
- receiving (S212) buffer status information from the buffer (201);
- receiving (S213) channel status information from the physical layer (205);
- obtaining (S211) scheduling control information indicating a data transmission delay of the real-time data and indicating a priority of the non-real-time data;
- scheduling (S214) the data and determining a size of data block to be transmitted in accordance with the buffer status information, the channel status information, and the scheduling control information; and
- transmitting (S215) the data through the physical layer according to the scheduling to support real-time and non-real-time data services;
- wherein the data transmission delay occurs within a RLC layer and within the MAC-hs layer or within a RNC (121, 131) and a within [sic] Node B (122, 133)."

XII. Independent claim 1 according to auxiliary requests VI and VII reads as follows:

"1. A method of transmitting data in a High Speed Downlink Packet Access (HSDPA) system operated in a mobile communications system having a radio interface

protocol with an upper layer, a MAC-hs layer including a buffer (201), and a physical layer (205), the method is performed by the MAC-hs layer, the method comprises the step of:
- receiving real-time data and non-real-time data from the upper layer;
characterized by
- receiving (S212) buffer status information from the buffer (201);
- receiving (S213) channel status information from the physical layer (205);
- obtaining (S211) scheduling control information indicating a data transmission delay of the real-time data measured by a timer and indicating a priority of the non-real-time data;
- scheduling (S214) the data and determining a size of data block to be transmitted in accordance with the buffer status information, the channel status information, and the scheduling control information; and
- transmitting (S215) the data block through the physical layer according to the scheduling to support real-time and non-real-time data services;
- wherein the data transmission delay occurs within a RLC layer and within the MAC-hs layer, or within a RNC (121, 131) and within a Node B (122, 133) after the data are received."

XIII. The appellant (patent proprietor) requested that the decision under appeal be set aside and that a patent be maintained in amended form on the basis of one of the auxiliary requests IV to VII, all requests submitted at the oral proceedings, the requests IV and V replacing the auxiliary requests IV and V filed with letter dated 26 August 2014. The main request and auxiliary request I filed on 23 February 2012 with the statement setting

out the grounds of appeal and the auxiliary requests II and III filed with letter dated 26 August 2014 were withdrawn.

The respondent (opponent) requested that the appeal be dismissed.

XIV. After deliberation of the board, the chair announced the decision.

Reasons for the Decision

1. Admissibility of the appeal

1.1 The respondent argued that the appellant's notice of appeal did not fulfil the provisions of Rule 99(1)(c) EPC. In particular, it was argued that the appellant's request "to grant a patent on the basis of the requests considered by the Opposition Division" was not a request defining the subject of the appeal, because it led to multiple requests which would have to be considered by the respondent. However, the board does not agree, since according to the decision (see e.g. point I-12.2) it is clear which requests were considered to be the (final) requests on which the decision under appeal is based. In the board's view the appellant's request in the notice of appeal referred to those requests of which, irrespective of its form, the content was sufficiently clear to deduce from the information what general legal effects were sought to be achieved (see T 689/09 on 24 November 2010 referred to by the respondent on page 3, last paragraph of the reply letter dated 13 August 2012).

1.2 The board therefore regards the appeal as admissible.

2. Admissibility of the requests

2.1 By filing the present auxiliary requests IV to VII during oral proceedings the appellant only presented minor amendments to the claims within the context of the requests submitted with the statement setting out the grounds of appeal, and in reaction to objections dealt with in the board's communication dated 05 June 2014, in the respondent's letters dated 25 August 2014 and 19 September 2014, respectively, and in the discussion at oral proceedings.

2.2 Under Article 13(1) RPBA, a board's discretion in admitting any amendment to a party's case "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". Furthermore, pursuant to Article 13(3) RPBA, amendments 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". In compliance with the wording of Article 13(1) RPBA which refers to the criteria as "*inter alia*" the board has the discretion to apply these criteria in different combinations depending on the circumstances of the case, considering them as exemplary and not cumulative, and therefore, if necessary, has the power to apply other criteria such as *prima facie* allowability or, as foreseen in Article 12(4) RPBA, whether the amendments could have been filed before the first instance.

2.3 All the present auxiliary requests IV to VII are based on auxiliary request II filed on 13 October 2011 (see in particular the last two features of claim 1 of this request) which was not admitted into the proceedings by

the opposition division (see points I-12.2 and II-3.2.3 of the decision under appeal).

All these requests are different from the request not admitted in the first instance proceedings, because of the feature according to which the data transmission delay occurs within a RLC layer and within a MAC layer, or within an RNC (121, 131) and within a Node B (122, 133), which was amended in an attempt to overcome an objection under Articles 100(b) and 83 EPC 1973.

2.4 In the board's view, the appellant did not withhold these requests during the opposition proceedings. In the board's judgement the amendments made to claim 1 according to these requests, despite having been presented late in the appeal proceedings, are substantive in comparison to the wording of claim 1 according to the request which was not admitted into the proceedings by the opposition division. In particular, by further specifying the MAC layer to be the "MAC hs layer" the appellant reacted to an objection discussed in the written communication of the board and to objections presented orally by the respondent during the oral proceedings (Articles 100(c) EPC 1973 and 123(2) EPC). These requests are also regarded as in accordance with the requirements of Article 13(1) RPBA. Since the board could deal with them without adjournment of the oral proceedings, Article 13(3) RPBA is also fulfilled.

2.5 Furthermore, regarding auxiliary requests VI and VII, further amendments addressing inter alia the clarity issues with respect to the term "data transmission delay" and independent claim 6 (auxiliary request VII) were introduced. The assessment of the term "data transmission delay" was the subject of some discussion

at oral proceedings. At the end of this discussion the board came to the conclusion that this term in claim 1 was not clear (see points 4.2 and 4.3 below), deviating from its preliminary view in the board's communication of 5 June 2014. Under these circumstances the board considers these amendments to be a fair attempt to address this situation. Thus, in the present case and in this respect, auxiliary requests VI and VII are also found to fulfil the requirements of Article 13(1) RPBA.

2.6 The board therefore admitted these requests into the proceedings.

Auxiliary request IV

3. Articles 100(c) EPC 1973 and 123(2) EPC

3.1 The respondent argued (see e.g. point 2.8-(4) on page 22 of the letter dated 13 August 2012) that omitting the features consisting in "determining a transmission order of data and a size of a data block to be transmitted based on the collected information" and "transmitting the data block through a physical layer according to the determined transmission order" in original claim 1 violated Article 123(2) EPC, because these features had been originally disclosed as essential and part of the disclosed invention (see reference to paragraph [60] of the application as filed).

3.2 The board agrees with the respondent's argument and, in particular, is not convinced by the reasoning in the decision under appeal (see point II-6.3.3). Paragraph [0060] of the application as filed requires the feature "determining a transmission order of data and a size of a data block to be transmitted based on the collected

information" as necessary in order to achieve the objectives of the invention. The board therefore considers this feature to be essential for the invention and its deletion to violate the requirements of Article 123(2) EPC.

Auxiliary request V

4. Article 84 EPC 1973

4.1 The respondent further objected to independent claims 1 and 6 for lack of clarity introduced by amendment after grant of the patent in suit.

4.2 The feature "data transmission delay or latency" was introduced to replace "delay of data" during the examination procedure at which the latter had been regarded as unclear, because of leaving the reader in doubt as to the kind of processing referred to, e.g. processing delay, queuing delay or transmission delay (see communication of 4 November 2004, point 1.3). In the course of the opposition procedure the term "or latency" was deleted in the aim to overcome an objection as to added subject-matter. The respondent objected to the remaining feature "data transmission delay" for lack of clarity and argued that the term was no longer clear due to the deletion of "or latency". Moreover, the interpretation of the term "data transmission delay" on the basis of the description, see in particular paragraphs [0076], [0082] and [0083] was different from how this term was used by the skilled person.

4.3 With regard to this objection, the board considers the more concrete formulation "data transmission delay" of present claims 1 and 7 to still lack clarity as far as

the kind of delay is concerned. While the appellant pointed out that the expression "data transmission delay" was clear in the light of the description of the patent by referring to paragraphs [0076], [0082] and [0083], the board agrees with the respondent that a claim has to be clear per se (see T 1129/97 dated 23 June 1998, point 2.1.2). However, when referring to "data transmission delay" in claims 1 and 7, in particular since the words "or latency" were removed from "data transmission delay", the skilled person would have an understanding of the expression different from the description. As is apparent from e.g. prior art document

A8: Rosado, Sosa C et al: Jitter compensation scheduling schemes for the support of real-time communications ,ICC 98, Conference Record, 1998 IEEE International Conference On Atlanta, GA, USA 7-11 June 1998, NEW YORK, NY, USA, IEEE, US, 7 June 1998, pages 885-890,

referred to by the respondent during oral proceedings, there are different types of delay like propagation delay, processing delay, queuing delay, transmission delay etc. (see e.g. section 2.1). Without further specification, the skilled person would interpret the expression "data transmission delay" in claim 1 to refer to this special type of delay rather than to the whole delay. The skilled person would not understand claim 1 in a way that it is referred to more than the transmission of the data without further considering the description. The same objection applies to corresponding system claim 6.

4.4 Independent claim 6 is directed to "A High Speed Downlink Packet Access (HSDPA) system to be operated in

a mobile communications system having a radio interface protocol ...".

4.5 The board agrees with the respondent that independent claim 6 also lacks clarity as it is ambiguous whether a mobile communications system is part of the claim or not.

4.6 Claims 1 and 6 are therefore not clear per se in contrast to the requirements of Article 84 EPC 1973.

Auxiliary requests VI and VII

5. Article 84 EPC 1973

5.1 The respondent argued that claim 1 of both requests still lacked clarity with regard to the expression "data transmission delay of the real-time data measured by a timer" and, in addition, lacked support by the description.

5.2 The board concurs with the respondent that by merely indicating that a delay is measured by a timer the type of delay is not further clarified. The skilled person would still interpret the expression "data transmission delay" in claim 1 to refer to this special type of delay rather than to the whole delay without further considering the description. The expression "data transmission delay" in claim 1 therefore still lacks clarity.

5.3 The board agrees with the appellant's argument that the expression "a timer" in claim 1 has to be understood as at least one timer, therefore also comprising two and more timers. However, the board agrees with the respondent that claim 1 encompasses a single timer

scenario which is not supported by the description. Since "the data transmission delay occurs within a RLC layer and within the MAC-hs layer, or within a RNC (121, 131) and within a Node B (122, 133)" at least two timers are required. One timer for measuring the delay in the RLC layer/RNC and another one for the MAC hs layer/Node B. Also according to the description there is a need for two separate timers (see e.g. [0061] of the application as published "... the delay information in the MAC layer is preferably measured by a timer provided in the MAC layer, and the delay information in the upper layer delay can be measured by an additional timer ...").

Claim 1 of both requests therefore lacks clarity with regard to the expression "data transmission delay of the real-time data measured by a timer" and, in addition, lacks support by the description in contrast to the requirements of Article 84 EPC 1973.

6. Hence none of the requests fulfils the requirements of the EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chair:

K. Götz-Wein A. Ritzka

Decision electronically authenticated