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**Datasheet for the decision
of 7 November 2019**

Case Number: T 1860/15 - 3.5.03

Application Number: 10707369.4

Publication Number: 2449844

IPC: H04W74/08, H04W72/04, H04W72/12

Language of the proceedings: EN

Title of invention:
METHOD AND ARRANGEMENT IN A WIRELESS COMMUNICATION SYSTEM

Patent Proprietor:
Telefonaktiebolaget LM Ericsson (publ)

Opponent:
Sony Corporation

Headword:
Wireless communication system/ERICSSON

Relevant legal provisions:
EPC Art. 87, 89, 52(1), 54, 111(1)

Keyword:
Priority - basis in priority document (no)
Novelty - main request (no)
Remittal to the department of first instance - (yes)

Decisions cited:

G 0002/98

Catchword:



Beschwerdekammern

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Chambres de recours

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Case Number: T 1860/15 - 3.5.03

D E C I S I O N
of Technical Board of Appeal 3.5.03
of 7 November 2019

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Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
13 July 2015 concerning maintenance of the
European Patent No. 2449844 in amended form.**

Composition of the Board:

Chairman F. van der Voort
Members: J. Eraso Helguera
R. Winkelhofer

Summary of Facts and Submissions

- I. The opponent and the patent proprietor each filed an appeal against the interlocutory decision of the opposition division, which held, *inter alia*, that the ground for opposition according to Article 100(a) EPC prejudiced the maintenance of the patent as granted and that, account having been taken of the amendments made by the proprietor in accordance with a first auxiliary request, the patent and the invention to which it related were found to meet the requirements of the EPC.
- II. In its decision, the opposition division referred *inter alia* to the following prior art document:
- D1b: 3GPP TS 36.321 V9.1. (2009-12) "3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Evolved Universal Terrestrial Radio Access (E-UTRA) Medium Access Control (MAC) protocol specification (Release 9)"
- III. In its statement of grounds of appeal, appellant I (opponent) requested that the decision under appeal be set aside and that the patent be revoked in its entirety.
- IV. In its statement of grounds of appeal, appellant II (patent proprietor) requested that the decision under appeal be set aside and that the patent be maintained in amended form on the basis of the claims of a main request, i.e. only claims 1 to 10 as granted, or on the basis of the claims of an auxiliary request A1, both filed with the statement of grounds of appeal. With its reply to appellant I's appeal, appellant II further submitted auxiliary requests A2, 1-a, 2-a, 3, 4-a, 5-a, 6 and 7.

- V. With its submission dated 19 January 2018 appellant I withdrew its previous request for oral proceedings.
- VI. In a communication accompanying a summons to oral proceedings, the board gave *inter alia* a preliminary opinion on the effective date of filing in respect of the subject-matter of claim 1 as granted.
- VII. With the submission dated 1 March 2019, appellant I informed the board that it would not attend the oral proceedings.
- VIII. With a submission dated 7 October 2019, appellant II filed further auxiliary requests A3 and A4.
- IX. Oral proceedings were held on 7 November 2019 in the absence of appellant I.

Appellant I (opponent) had requested in writing that the decision under appeal be set aside and that the patent be revoked in its entirety.

Appellant II (patent proprietor) finally requested that the decision under appeal be set aside and that the patent be maintained in amended form on the basis of the claims of a main request, i.e. only claims 1-10 as granted, filed with the statement of grounds of appeal, or on the basis of the claims of auxiliary request 4-a or 5-a, the remaining auxiliary requests on file having been withdrawn.

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

X. Claim 1 of the **main request**, i.e. claim 1 as granted, reads as follows:

"A method in a user equipment (30) for transmitting scheduling requests (SR) to a base station (28), the base station (28) is adapted to serve the user equipment (30), the user equipment (30) is configured to transmit scheduling requests (SR) to the base station (28) only at certain predetermined scheduling request opportunities ($t_0, t_1, t_2, t_3, t_4, \dots, t_\infty$), the method comprising:

triggering (502) a scheduling request transmission, *transmitting* (503) a scheduling request (SR) to the base station (28) at the next occurring scheduling request opportunity ($t_0, t_1, t_2, t_3, t_4, \dots, t_\infty$) as a response to the triggering, *starting* (504) a scheduling request prohibiting timer (40), comprised in the user equipment (30), when the scheduling request (SR) is transmitted to the base station (28), and *prohibiting* (505) any further scheduling request retransmission at future scheduling request opportunities ($t_0, t_1, t_2, t_3, t_4, \dots, t_\infty$) while the scheduling request prohibiting timer (40) is running."

Claim 1 of **auxiliary request 4-a** is the same as claim 1 as granted, except for the following insertions (board's underlining):

at the end of first paragraph:

"only at certain predetermined scheduling request opportunities ($t_0, t_1, t_2, t_3, t_4, \dots, t_\infty$), wherein the scheduling request opportunities occur periodically with a scheduling request periodicity, SR periodicity,

the method comprising:"

and

in the fourth paragraph:

"starting (504) a scheduling request prohibiting timer (40), comprised in the user equipment (30), when the scheduling request (SR) is transmitted to the base station (28), wherein the scheduling request prohibiting timer (40) is configured to a scheduling request prohibiting timer length which is equal to the SR periodicity, multiplied with a factor k operated by a random variable l , such that: scheduling request prohibiting timer length = $(k + l) \cdot$ SR periodicity; wherein the factor k is received from the base station (28) via Radio Resource Control "RRC" signalling; and wherein the random variable l is randomly generated by the user equipment (30);"

In view of the board's decision, there is no need to cite claims of auxiliary request 5-a.

Reasons for the Decision

1. *Main request: claim 1 as granted - effective date of filing (Articles 87 and 89 EPC)*
- 1.1 The *starting* step of claim 1 of the main request explicitly requires the user equipment to comprise a scheduling request prohibiting timer ("*starting (504) a scheduling request prohibiting timer (40), **comprised in the user equipment (30)***"). Appellant I disputed the presence of this feature in the priority document US 221179 P, submitting that according to the priority

document, the SR prohibit timer was explicitly said to be arranged in the base station and that there was no unambiguous disclosure of a "timer in user equipment" in other passages of the priority document.

1.2 Appellant II did not dispute the fact that the only explicit mention of the location of the "scheduling request (SR) prohibit timer 40" was to be found in Fig. 3 and the corresponding paragraph [0025] of the priority document. Indeed, paragraph [0025] states that the "base station 28 further comprises scheduling request (SR) prohibit timer 40" and Fig. 3 indisputably shows that the "SCHEDULING REQUEST (SR) PROHIBIT TIMER 40" is included in the base station 28, which is also referred to as "eNodeB" or "eNB":

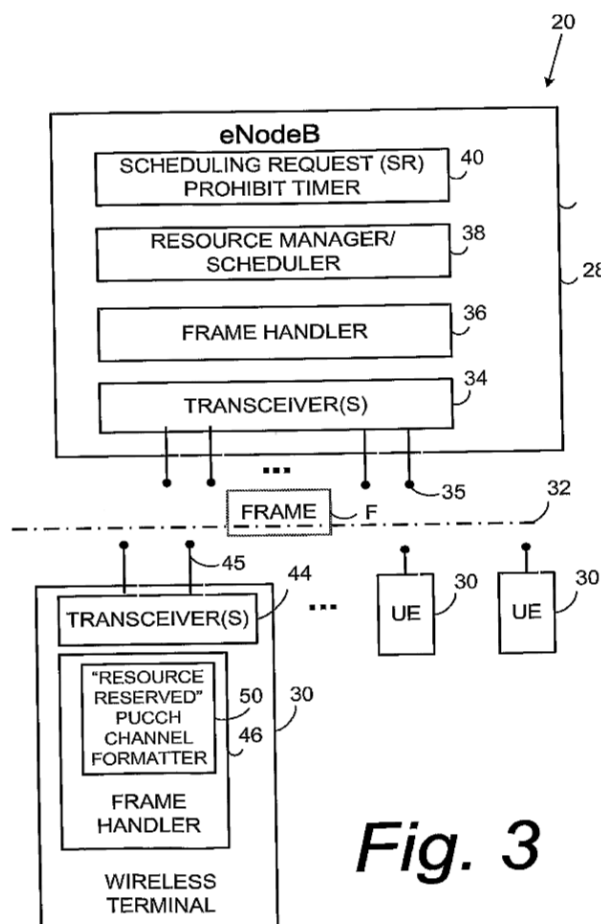


Fig. 3

1.3 Appellant II argued however that the disclosure of the priority document implied that an SR prohibit timer 40 was also present in the user equipment and submitted in support the following arguments:

The fact that the timer "is configured by the eNB with RRC" and that "k is signaled by RRC", see paragraph [0034], necessarily meant that there was another timer in the user equipment.

Further, the possibility to configure different UEs with different values, as explicitly disclosed in paragraph [0036], constituted a further hint that a timer had to be located in each of the UEs.

Finally, paragraph [0012] stated that "this way the load on PUCCH can be reduced significantly", which could only mean that the timer was comprised in the user equipment, since other implementations in which the timer is in the eNB would lead to more load in the control channel.

1.4 In the board's judgment, the priority document does not directly and unambiguously disclose a user equipment which comprises a scheduling request prohibiting timer, as present claim 1 requires. The reasons are the following:

1.4.1 The priority document allows for at least four different ways of interpretation as concerns the location of the SR prohibit timer(s):

1) The SR prohibit timer 40 is located in the base station (as explicitly stated in paragraph [0025] and shown in Fig. 3) and only in the base station,

paragraphs [0030]-[0037] being at least compatible with such location;

2) The SR prohibit timer 40 is located in the user equipment (if this were implied by paragraphs [0030]-[0037]) and only in the user equipment, the skilled reader understanding that paragraph [0025] and Fig. 3 (see point 1.2 above) included an obvious mistake, which would be the only logical explanation on attempting to make technical sense out of the various passages;

3) There are at least two SR prohibit timers, one in the base station and one in the user equipment, even though the document does not disclose whether or not these timers require any kind of synchronisation and, if so, how this is achieved; and

4) The priority document incurs such contradictions that there is no clear teaching, i.e. the disclosure is non-enabling as to the location of the timer(s) and the skilled person, wishing to make technical sense out of the disclosure, simply fails to do so due to a lack of information in this respect.

1.4.2 The first interpretation corresponds to appellant I's argumentation in its statement of grounds of appeal. Appellant II, at least in its statement of grounds of appeal, as well as the opposition division in its decision followed the second interpretation. In reply to the board's preliminary opinion as well as during oral proceedings, appellant II argued in line with the third interpretation.

1.4.3 As regards the fourth interpretation, the discussion about the disclosure of the priority document cannot be

reduced to a dichotomy in that it has to be decided whether the SR prohibit timer is plausibly found to be present in either the base station or the user equipment. A technical disclosure may remain unclear or incomplete, despite taking into account common technical knowledge. Extracting a sought-after content from the original disclosure would imply hindsight. In the present case, the priority document does not provide sufficient details about the implementation of the SR prohibit timer such as to obtain a direct and unambiguous disclosure of its number and location.

1.4.4 Although it appears plausible that paragraphs [0030]-[0037] are compatible with a timer in the user equipment (cf. para. [0034]: "*The SR prohibit timer 40 (...) is configured by the eNB with RRC*", cf. para. [0035]: "*k is configured by the eNB and the l is random part selected by the UE*"), this does not necessarily imply that an SR prohibit timer is required in the user equipment, particularly in view of the fact that the same text explicitly locates the *SR prohibit timer 40* in the eNB in the preceding paragraphs, and that other implementations compatible with the location of the SR prohibit timer in the eNB would also be compatible with this disclosure, e.g. one in which the SR prohibit timer length of the timer is selected/proposed by each UE and communicated to the eNB with RRC, with the timer running in the eNB.

1.4.5 The possibility of configuring different UEs with different values is not incompatible with the presence of all timers in the base station, as long as the base station has sufficient processing capability. Therefore, this paragraph is not conclusive as to the location of the SR prohibit timer either.

1.4.6 As regards the purported reduction in the load on PUCCH, this is inherently linked to the problem stated in the preceding paragraphs, i.e. the repeated transmission of the scheduling request (see paragraph [0010]: "As a result, configuring the scheduling request (SR) periodicity to 5 ms leads to physical transmission of the SR at least twice. This generates a significant unnecessary load on PUCCH."). Hence, the alleged load reduction is to be ascribed to the existence of the SR prohibit timer rather than to its actual location, be it in the base station, the user equipment, or elsewhere. Paragraph [0012] is not conclusive either as to the location of the timer.

1.5 Furthermore, for a priority claim to be valid, it is not sufficient that a sought-after interpretation could plausibly be derived from the priority document.

1.6 In the present case, for the reasons stated above, the skilled person cannot derive the subject-matter of claim 1 of the main request directly and unambiguously, using common general knowledge, from the previous application as a whole, cf. G 2/98, conclusion (OJ EPO, 2001, 413).

1.7 In accordance with Article 89 EPC, the effective filing date of the subject-matter of claim 1 of the main request for the purposes of Article 54 EPC is therefore the actual filing date of the European patent application, i.e. 2 February 2010.

2. *Main request: claim 1 as granted - novelty (Articles 52(1) and 54 EPC)*

2.1 Since the effective filing date for the purposes of Article 54 EPC is 2 February 2010, document D1b

constitutes state of the art pursuant to Article 54(2) EPC.

2.2 Document D1b discloses, using the language of claim 1, a method in a user equipment (see paragraph 5.4.4: "the UE shall") for transmitting scheduling requests (SR) to a base station, the base station being adapted to serve the user equipment and the user equipment being configured to transmit scheduling requests (SR) to the base station only at certain predetermined scheduling request opportunities (see paragraph 5.4.4: "if the UE has a valid PUCCH resource for SR configured for this TTI and if this TTI is not part of a measurement gap"), the method comprising:

triggering (see paragraph 5.4.4: "When an SR is triggered") a scheduling request transmission,

transmitting (see paragraph 5.4.4: "instruct the physical layer to signal the SR on PUCCH;") a scheduling request (SR) to the base station at the next occurring scheduling request opportunity as a response to the triggering,

starting (see paragraph 5.4.4: "start the sr-ProhibitTimer.") a scheduling request prohibiting timer, comprised in the user equipment, when the scheduling request is transmitted to the base station, and

prohibiting (see paragraph 5.4.4: "if sr-Prohibit Timer is not running"; this is a pre-condition for instructing the physical layer to signal the SR on PUCCH) any further scheduling request retransmission at future scheduling request opportunities while the scheduling request prohibiting timer is running.

2.3 The subject-matter of claim 1 of the main request is therefore not new in view of D1b (Articles 52(1) and 54(1) and (2) EPC).

3. *Auxiliary request 4-a*

3.1 Auxiliary request 4-a was filed for the first time during oral proceedings before the opposition division. The opposition division did not, and indeed needed not, consider this auxiliary request in its decision, as it found a higher-ranking request to meet the requirements of the EPC.

3.2 Appellant II did not make any submissions in respect of this request.

3.3 The board saw no reason to hold this request inadmissible (Article 12(2) and (4) RPBA).

3.4 In view of the above and in accordance with Article 111(1) EPC, the case is to be remitted to the department of first instance for further prosecution on the basis of auxiliary request 4-a.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the department of first instance for further prosecution.

The Registrar:

The Chairman:



G. Rauh

F. van der Voort

Decision electronically authenticated