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Datasheet for the decision of 17 February 2022

Case Number: T 0642/17 - 3.5.03

Application Number: 08002574.5

Publication Number: 1956861

IPC: H04W76/02

Language of the proceedings: EN

Title of invention:
Improving high-speed downlink operation in CELL_FACH state for a wireless communications system

Patent Proprietor:
Innovative Sonic Limited

Opponent:
Telefonaktiebolaget L M Ericsson (publ)

Headword:
High-speed downlink operations/INNOVATIVE

Relevant legal provisions:
EPC Art. 54, 87(1), 100(c), 123(2)
RPBA 2020 Art. 13(2)

Keyword:

Added subject-matter - main and 1st auxiliary request (yes): unallowable generalisation
Admittance - 2nd auxiliary request (no): no exceptional circumstances
Priority - 3rd auxiliary request (no): not the "same invention"
Novelty - 3rd auxiliary request (no)

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Boards of Appeal

Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0
Fax +49 (0)89 2399-4465

Case Number: T 0642/17 - 3.5.03

D E C I S I O N
of Technical Board of Appeal 3.5.03
of 17 February 2022

Appellant I: (Patent Proprietor)	Innovative Sonic Limited 2nd Floor, The Axis 26 Cybercity Ebene 72201 (MU)
Representative:	Grünecker Patent- und Rechtsanwälte PartG mbB Leopoldstraße 4 80802 München (DE)
Appellant II: (Opponent)	Telefonaktiebolaget L M Ericsson (publ) 164 83 Stockholm (SE)
Representative:	Hoffmann Eitle Patent- und Rechtsanwälte PartmbB Arabellastraße 30 81925 München (DE)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 3 January 2017 concerning maintenance of the European Patent No. 1956861 in amended form.**

Composition of the Board:

Chair	K. Bengi-Akyürek
Members:	K. Schenkel
	R. Romandini
	J. Eraso Helguera
	C. Almberg

Summary of Facts and Submissions

I. The appeals by the patent proprietor and the opponent lie from the interlocutory decision of the opposition division maintaining the present European patent in amended form on the basis of a ninth auxiliary request filed during the oral proceedings before the opposition division on 17 November 2016. The decision under appeal addressed, *inter alia*, the issue of inventive step (Article 56 EPC) in view of prior-art document

A6: ETSI TS 125.331 V7.5.0 (2007-06) 3rd Generation Partnership Project; Universal Mobile Telecommunications System (UMTS); Radio Resource Control (RRC), Protocol specification (Release 7).

II. Oral proceedings were held before the board on 17 February 2022 by videoconference.

The parties' final requests were as follows.

- The proprietor requested that the appealed decision be set aside and that the opposition be rejected, i.e. that the patent be maintained as granted (**main request**), or that the patent be maintained as amended on the basis of one of **auxiliary request 1**, subject to the appealed decision, **auxiliary request 2**, filed during the oral proceedings before the board, or **auxiliary request 3**, subject to the appealed decision (then labelled "auxiliary request 9").

- The opponent requested that the appealed decision be set aside and that the patent be revoked.

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

III. Claim 1 of the **main request** reads as follows (labelling by the board):

A) "A method of improving a high-speed downlink operation in CELL_FACH state for a network terminal of a wireless communications system, the network terminal wirelessly communicating with a user equipment, hereinafter called UE, the network terminal and the UE both supporting the high-speed downlink operation in CELL_FACH state,
the method is characterized by
B1) sending a[n] RRC CONNECTION SETUP message,
B2) which always includes a dedicated HS-DSCH radio network transaction identifier, hereinafter called H-RNTI, to the UE,
C) so as to allocate the dedicated H-RNTI to the UE and
D) manage the UE to perform the high-speed downlink operation in CELL_FACH based on the dedicated H-RNTI."

IV. Claim 1 of **auxiliary request 1** reads as follows (labelling and differences to claim 1 of the main request indicated by the board):

A) "A method of improving a high-speed downlink operation in CELL_FACH state for a network terminal of a wireless communications system, the network terminal wirelessly communicating with a user equipment, hereinafter called UE, the network terminal and the UE both supporting the high-speed downlink operation in CELL_FACH state,
the method ~~is~~ being characterized by

B1) sending an RRC CONNECTION SETUP message,
B2) which always includes a dedicated HS-DSCH radio network transaction identifier, hereinafter called HRNTI, to the UE,
C) so as to always allocate the dedicated H-RNTI to the UE and
D) manage the UE to perform the high-speed downlink operation in CELL_FACH state based on the dedicated H-RNTI."

V. Claim 1 of **auxiliary request 2** reads as follows (labelling and differences with respect to claim 1 of the main request indicated by the board):

A) "A method of improving a high-speed downlink operation in CELL_FACH state for a network terminal of a wireless communications system, the network terminal wirelessly communicating with a user equipment, hereinafter called UE, the network terminal and the UE both supporting the high-speed downlink operation in CELL_FACH state,
the method ~~is~~ being characterized by
E) using a first function but not using a second function when the UE initiates an RRC establishment procedure, the first function comprising
B1) sending an RRC CONNECTION SETUP message,
B2) which always includes a dedicated HS-DSCH radio network transaction identifier, hereinafter called H-RNTI, to the UE,
C) so as to allocate the dedicated H-RNTI to the UE and
D) manage the UE to perform the high-speed downlink operation in CELL_FACH state based on the dedicated H-RNTI
F) further comprising the steps of
G) setting a New H-RNTI information element,

hereinafter called IE, with the dedicated H-RNTI; including the New H-RNTI IE in an RRC CONNECTION SETUP message; and

H) sending the RRC CONNECTION SETUP message to the UE."

VI. Claim 1 of **auxiliary request 3** reads as follows (labelling by the board):

A) "A method of improving a high-speed downlink operation in CELL_FACH state for a user equipment, hereinafter called UE, of a wireless communications system, the UE wirelessly communicating with a network terminal, the network terminal and the UE both supporting the high-speed downlink operation in CELL_FACH state, the method comprising:

B) initiating a radio resource control, hereinafter called RRC, establishment procedure (402);

C) receiving an RRC CONNECTION SETUP message from the network terminal (404); and

D) performing the high-speed downlink operation according to a dedicated HS-DSCH network transaction identifier, hereinafter called H-RNTI, when the RRC CONNECTION SETUP message comprises the dedicated H-RNTI (408);

characterized by

E) determining the RRC CONNECTION SETUP message to be invalid when the RRC CONNECTION SETUP message does not comprise the dedicated H-RNTI (410); and

F) notifying the network terminal that an error occurs in the RRC establishment procedure when the RRC CONNECTION SETUP message is determined to be invalid."

Reasons for the Decision

1. Main request and auxiliary request 1 - added subject-matter (Articles 100(c) and 123(2) EPC)

1.1 Claim 1 as originally filed includes the following limiting features (labelling by the board):

a) A method of improving a high-speed downlink operation in CELL_FACH state for a network terminal of a wireless communications system, the network terminal wirelessly communicating with a user equipment, hereinafter called UE, the network terminal and the UE both supporting the high-speed downlink operation in CELL_FACH state, the method comprising:

b1) using a first function

b2) but not using a second function

b3) when the UE initiates a radio resource control (RRC) establishment procedure;

c) wherein the first function is used for allocating a dedicated HS-DSCH radio network transaction identifier (H-RNTI) to the UE,

d) so as to manage the UE to perform the high-speed downlink operation in CELL_FACH [state] based on the dedicated H-RNTI, and

e) the second function is used for not allocating the dedicated H-RNTI to the UE.

1.2 **Features b2) and e)** have been omitted from claim 1 of each of the main request and auxiliary request 1.

1.2.1 The opposition division argued that the removal of these features did not infringe Article 123(2) EPC because, in accordance with claim 1 as filed, they are not used in the claimed method.

The board disagrees. Claim 1 as filed, by including features b2) and e), is limited to a method for use in a network in which first and second functions are provided. Claim 1 as granted however embraces a method in which there is no second function available to the network. Clearly, a method of always using a first function when there is a choice of functions has a narrower scope than always using a first function when this is the only function. No basis for this broadening of the scope of claim 1 can be found in the application as filed.

Consequently, subject-matter has been added, contrary to Articles 100(c) and 123(2) EPC.

1.2.2 The proprietor argued that the disputed features did not define anything going beyond the original claims. The skilled person would know that a network terminal is not limited to a *single* function as could be deducted from the limitation to the CELL_FACH state which shows that the terminal also supports *other* functions. The second function was not constrained by any limitation in the claims or in the description, nor was there any positive restriction of the second function defined. The second function was used for not allocating, i.e. for not performing an action, and was also not mentioned in the original claims. Further, claim 1 did not indicate that the function was present, it just said *not* to use it. Neither did claim 1 include a wording implying a decision as to which function to use. Hence, the second function could be left out.

1.2.3 The board is not convinced by these arguments for the following reasons:

Notwithstanding that feature b2) refers to not using the second function, it limits claim 1 in the sense that it *excludes* the use of the second function in a specific situation. Hence, the second function needs to be available or at least be defined to describe what is to be excluded if necessary and a decision needs implicitly be taken as to which function is to be used or which is not to be used. The board further agrees with the opponent's argument that the second function cannot be disregarded because claim 1 defines that only under a specific condition, namely "when the UE initiates a radio resource control (RRC) establishment procedure", it is not used. This does not exclude that it is used under *different* conditions.

1.3 Claim 1 as filed specifies that the first function is applied "when the UE initiates an RRC establishment procedure" (**feature b3)**).

1.3.1 Claim 1 of each of the main request and auxiliary request 1 however embraces a method which is not linked to the UE initiating an RRC establishment procedure, i.e. not subject to the limitation entailed by such a condition. No basis for this broadening of the scope of claim 1 can be found in the application as filed. Consequently, subject-matter has been added, contrary to Article 123(2) EPC.

1.3.2 The proprietor argued that the claim related to a method for a network terminal and that the initiation by the UE is not part of a method at the network. The network terminal could not know that the UE initiates the procedure; it could not be observed at the terminal side and was therefore not closely linked to the method of the network terminal. The original claims only used the wording "when the UE initiates". If it were an

essential feature, a different expression had been used, namely "upon receipt of ... do the following ..." which is however not part of the claim 1. Neither the receipt nor anything in this respect was mentioned in claim 1 which showed that it was not relevant. The claim required an RRC connection message which already implicitly defined that the method takes place in the context of the RRC connection establishment procedure. Since the RRC connection establishment was always initiated by the UE, it was not necessary to repeat it in claim 1.

1.3.3 The board is not convinced by these arguments for the following reasons:

No matter whether the wording "when the UE initiates an RRC establishment procedure" is understood in a temporal sense, i.e. at the point in time when the UE initiates ..., or in an conditional sense, i.e. if the UE initiates ..., or both, in any case the control of the initiation lies on the UE side. This aspect which was included in claim 1 as filed is now missing.

Further, although the initiation step is performed by the UE and not by the network terminal, the latter has to react to it which is expressed by the wording "when the UE initiates ..." (underlining added). Hence, it implies a corresponding limitation for the method even if it is on the network terminal side.

Finally, there is neither evidence that the initiation is always started by the UE and that this aspect therefore could be omitted. Nor does claim 1 include a corresponding limitation.

1.4 The board therefore concludes that Article 100(c), in conjunction with Article 123(2) EPC, prejudices the maintenance of the patent as granted and that auxiliary request 1 is not allowable under Article 123(2) EPC.

2. Auxiliary request 2 - admittance (Article 13(2) RPBA 2020)

2.1 Auxiliary request 2 was filed during the oral proceedings before the board. Since it was filed *after* the notification of the summons to oral proceedings before the board, its admittance is governed by Article 13(2) RPBA 2020.

2.2 According to Article 13(2) RPBA 2020, any amendment to a party's appeal case made after notification of a summons to oral proceedings shall, in principle, not be taken into account unless there are **exceptional circumstances**, which have been justified with cogent reasons by the party concerned. Furthermore, in the application of Article 13(2) RPBA 2020, the criteria applicable under Article 13(1) RPBA 2020 may be relied on.

In accordance with Article 13(1) RPBA 2020, "[the] Board shall exercise its discretion in view of, inter alia, the current state of the proceedings, the suitability of the amendment to resolve the issues which were [...] raised by the Board, whether the amendment is detrimental to procedural economy, and, in the case of an amendment to a patent application or patent, whether the party has **demonstrated** that any such amendment, prima facie, **overcomes the issues raised** by [...] the Board and does not give rise to new objections" (board's emphasis).

2.3 In the present case, claim 1 of auxiliary request 2 still omits feature b3) and therefore does not overcome the objections raised in point 1.3 above.

2.4 The board therefore concludes that the proprietor has failed to demonstrate that claim 1 of auxiliary request 2 *prima facie* overcomes the objections under Article 123(2) EPC which were already raised by the board in its preliminary opinion issued under Article 15(1) RPBA 2020, more than one year before the scheduled oral proceedings before the board. Moreover, the board cannot see any exceptional circumstances, let alone as justified with cogent reasons by the proprietor.

2.5 In view of the above, the board, in exercising its discretion, decided not to admit auxiliary request 2 into the appeal proceedings (Article 13(2) RPBA 2020).

3. Auxiliary request 3 (labelled "auxiliary request 9" in the opposition proceedings) - novelty (Article 54 EPC)

3.1 Claim 1 of auxiliary request 3 includes the following features:

A) A method of improving a high-speed downlink operation in CELL_FACH state for a user equipment, hereinafter called UE, of a wireless communications system, the UE wirelessly communicating with a network terminal, the network terminal and the UE both supporting the high-speed downlink operation in CELL_FACH state, the method comprising:

B) initiating a radio resource control, hereinafter called RRC, establishment procedure;

C) receiving an RRC CONNECTION SETUP message from the network terminal; and

D) performing the high-speed downlink operation according to a dedicated HS-DSCH network transaction identifier, hereinafter called H-RNTI, when the RRC CONNECTION SETUP message comprises the dedicated H-RNTI;
E) determining the RRC CONNECTION SETUP message to be invalid when the RRC CONNECTION SETUP message does not comprise the dedicated H-RNTI; and
F) notifying the network terminal that an error occurs in the RRC establishment procedure when the RRC CONNECTION SETUP message is determined to be invalid.

3.2 The closest prior art for the present subject-matter is considered to be document A6. A6 was published after the the patent's priority date. However, the features of the characterising parts of claims 1 and 2 are not comprised in the priority document. Hence, the subject-matter of claim 1 does not correspond to the "same invention" within the meaning of Article 87(1) EPC. This was not contested by the proprietor. As a consequence, document **A6** is prior art within the meaning of Article 54(2) EPC.

3.3 Prior-art document A6 relates to a mobile, i.e. wireless, telecommunications system and in particular to its radio resource control, RRC (cf. title). In section 8.1.3, the RRC connection establishment procedure is described which is initiated by sending an RRC CONNECTION REQUEST message from the UE to the network terminal "UTRAN", and by receiving at the UE an RRC connection setup from the network terminal (cf. Fig. 8.1.3-1). The steps performed after receipt of the RRC CONNECTION SETUP message are described in more detail in section 8.1.3.6 and include a sequence in the CELL_FACH state which lead to HS-DSCH (High Speed

Downlink Shared Channel), i.e. high-speed downlink operation, referring to "subclause 8.5.36" (page 88, lines 5 and 23). Said subclause in turn defines that the high-speed downlink operation is performed using the value of the variable H_RNTI (page 297, lines 26 and 32).

3.4 Using the wording of present claim 1, A6 thus discloses:

As to **feature A)**, a method for improving a high-speed downlink operation in CELL_FACH state for a UE of a wireless communications system, where the UE wirelessly communicates with a network terminal and the network terminal and the UE both support the high-speed downlink operation in CELL_FACH state (cf. page 88, lines 5 and 6).

As to **features B) and C)**, the method includes initiation of an RRC establishment procedure and receipt of an RRC CONNECTION SETUP message from the network terminal (cf. sections 8.1.3 and 8.1.3.6; Fig. 8.1.3-1).

As to **feature D)**, the high-speed downlink operation is performed according to a dedicated H-RNTI, when the RRC CONNECTION SETUP message comprises the dedicated HRNTI ("New H-RNTI"; cf. page 88, lines 20-24; page 304, section 8.6.3.1b, lines 10-14, and page 297, section 8.5.36, lines 1-5).

As to **feature E)**, the RRC CONNECTION SETUP message is determined to be invalid when the RRC CONNECTION SETUP message does not comprise the dedicated H-RNTI (see below, "Re feature E").

As to **feature F)**, A6 shows that the network terminal is notified that an error occurs in the RRC establishment procedure when the RRC CONNECTION SETUP message is determined to be invalid (see below, "Re feature F").

3.5 Re **feature E)**:

The opposition division argued (cf. Reasons 129 to 133 of the impugned decision) that "A5 and A6 require that both 'new H-RNTI' and 'new C-RNTI' are included. If either is missing, the RRC CONNECTION SETUP message is deemed to be invalid ... Clearly, this is different from the claimed subject-matter ..." (cf. Reasons 131).

However, the board does not agree. From the passage on page 88, lines 20-29 of A6, it follows that if "new H-RNTI" and "new C-RNTI" are included, these are stored and data can be received. In any other case ("else", page 88, line 24), the variable "INVALID_CONFIGURATION" is set to "TRUE" (page 88, line 28). Logically, the other cases implicitly or obviously falling within the scope of the term "else" are:

(a) only the "new H-RNTI" is included;
(b) only the "new C-RNTI" is included; or
(c) neither is included.

Both scenarios (b) and (c) are embraced by feature E) of claim 1, i.e. the determination of the RRC CONNECTION SETUP message to be invalid when the RRC CONNECTION SETUP message does not comprise the dedicated H-RNTI (see also the opponent's statement of grounds of appeal, page 14, lines 1-8).

3.6 Re **feature F)**:

The opposition division argued (cf. Reasons 129 and 132 of the impugned decision) that A6 did not disclose feature F).

However, the board does not agree. As explained in point 3.5 above, the flag "INVALID_CONFIGURATION" is set to "TRUE" in the method of A6 if "new H-RNTI" or "new C-RNTI" are missing from the RRC CONNECTION SETUP message (page 88, lines 24 and 28). Further steps performed when the" INVALID_CONFIGURATION" is set to "TRUE" are defined in section 8.1.3.8 (cf. page 91, line 1 ff.). This section discloses a sequence including the step of the UE setting the variable "PROTOCOL_ERROR_INDICATOR" to "TRUE" and submitting a new RRC CONNECTION REQUEST message to the network terminal (cf. page 91, lines 21-27). The new RRC CONNECTION REQUEST message sent to the network terminal includes the value of the "PROTOCOL_ERROR_INDICATOR" (cf. page 84, section 8.1.3.3, fourth line). Hence, the absence of the dedicated H-RNTI ("new H-RNTI") in the RRC CONNECTION REQUEST message causes the message to be found invalid, the "PROTOCOL_ERROR_INDICATOR" to be set to "TRUE" and this value to be sent or, in other words, to be notified in a new RRC CONNECTION REQUEST message to the network terminal.

3.7 According to the proprietor in A6 only a flag was set which was different from determining the RRC CONNECTION REQUEST message to be invalid. In claim 1, notifying the network terminal that an error occurs in the RRC establishment procedure was linked to the determination that the RRC CONNECTION SETUP message is invalid and not to the setting of a flag. Further, according to section 8.1.3.10, it depended also on the value of parameter "V300" whether or not the procedure was considered to be successful (cf. last five lines of

that section). Hence, from a success or a failure of the procedure and the resulting value of the flag "PROTOCOL_ERROR_INDICATOR" alone, it was not possible to deduce whether there was an error in the RRC establishment process. This meant that an error was not notified. Likewise, section 8.3.1.11 of A6, being part of the section on RRC Connection Mobility Procedures, disclosed a case in which the UE set the value of the flag "PROTOCOL_ERROR_INDICATOR" to "TRUE". The origin of this setting was therefore not attributable to an error occurring in the RRC establishment procedure.

3.8 The board does not agree with these arguments for the following reasons:

As set out in point 3.6 above, the value "TRUE" of the flag "PROTOCOL_ERROR_INDICATOR" indicates that an error occurred. Since claim 1 does not specify in which form or format the error is to be notified, the transmission of the value of said flag can be considered to be an error notification. The wording of feature F), i.e. "notifying the network terminal that an error occurs in the RRC establishment procedure", describes a step performed by the UE and expresses that an error causes the UE to send an error notification, namely the value "TRUE" of the flag "PROTOCOL_ERROR_INDICATOR", to the network terminal. The feature however does not exclude further reasons for sending the value "TRUE" of the flag "PROTOCOL_ERROR_INDICATOR" and does not express that the network terminal can deduct from receiving this flag value with certainty that an error occurred. By sending said flag value, the UE indeed notifies that an error occurred, regardless of whether this flag value is also sent under *other* circumstances.

3.9 In view of the above, the subject-matter of claim 1 of auxiliary request 3 is not novel having regard to the teaching of document A6. Auxiliary request 3 is therefore not allowable under Article 54 EPC.

4. As there is no allowable set of claims on file, the patent is to be revoked.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The patent is revoked.

The Registrar: The Chair:

B. Brückner K. Bengi-Akyürek

Decision electronically authenticated