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**Datasheet for the decision
of 24 October 2017**

Case Number: T 1556/13 - 3.5.05

Application Number: 09791152.3

Publication Number: 2329616

IPC: H04L1/18

Language of the proceedings: EN

Title of invention:

ALLOCATION OF DIFFERENT HARQ PROCESS IDENTIFIERS TO DIFFERENT
INITIAL SEMI-PERSISTENT SCHEDULING IN ORDER TO SOLVE
RETRANSMISSIONS AMBIGUITY WHEN DIFFERENT HARQ PROCESSES
OVERLAP

Applicant:

BlackBerry Limited

Headword:

HARQ process-IDs disambiguation/BLACKBERRY

Relevant legal provisions:

EPC Art. 54

Keyword:

Novelty - (no)

Decisions cited:

Catchword:



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Case Number: T 1556/13 - 3.5.05

D E C I S I O N
of Technical Board of Appeal 3.5.05
of 24 October 2017

Appellant: BlackBerry Limited
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 5 February 2013
refusing European patent application No.
09791152.3 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chair A. Ritzka
Members: P. Cretaine
G. Weiss

Summary of Facts and Submissions

I. This appeal is against the decision of the examining division, posted on 5 February 2013, refusing European patent application No. 09791152.3 on the ground of lack of novelty (Article 54 EPC) with respect to a main request and first and second auxiliary requests, having regard to the disclosure of

D3: HUAWEI: "HARQ process Id of DL persistent scheduling", 3GPP DRAFT, R2-083518, 3RD GENERATION PARTNERSHIP PROJECT (3GPP), MOBILE COMPETENCE CENTRE, FRANCE, vol. RAN WG2 Meeting #62bis, Warsaw, Poland, 30 June - 4 July 2008.

A third auxiliary request was not allowed for lack of inventive step (Article 56 EPC), having regard to the disclosure of D3.

The examining division further raised objections under Articles 83 and 84 EPC against all the requests.

II. Notice of appeal was received on 28 March 2013 and the appeal fee was paid on the same day. The statement setting out the grounds of appeal was received on 31 May 2013. The appellant requested that the decision be set aside and that a patent be granted based on a main request or an auxiliary request, both requests filed with the statement setting out the grounds of appeal. The claims of the main request and the auxiliary request were identical to the claims of the main request and the third auxiliary request, respectively, on which the decision was based. In addition, oral proceedings were requested in case the board did not allow the main request.

- III. A summons to oral proceedings was issued on 2 August 2017. In an annex to this summons, the board gave its preliminary opinion that the subject-matter of the claims of the main request and the auxiliary request was already disclosed in D3 (Article 54 EPC).
- IV. By letter dated 23 October 2017, the appellant informed the board that it would not attend the oral proceedings.
- V. Oral proceedings were held on 24 October 2017 in the absence of the appellant. The appellant requested in writing that the decision under appeal be set aside and that a patent be granted based on the claims of the main request or the auxiliary request, both requests filed with the statement setting out the grounds of appeal. After due deliberation on the basis of the written submissions, the decision of the board was announced at the end of the oral proceedings.
- VI. Independent claim 1 according to the main request reads as follows:

"A method (300) for assigning hybrid automatic repeat request, HARQ, process ID, comprising:
determining whether a retransmission (220) associated with a first initial semi persistent scheduling, SPS, transmission (210_n) having a first HARQ process ID is expected to occur after a second initial transmission (210_{n+1}) previously configured with SPS resource, explicitly assigning a second HARQ process ID to the second initial transmission (210_{n+1}) if it is determined that the retransmission of the first initial SPS transmission having the first HARQ process ID is expected to occur after the second initial

transmission, wherein the second HARQ process ID is different from the first HARQ process ID, and wherein the second HARQ process ID is explicitly assigned via physical downlink control channel, PDCCH, signaling, and assigning the first HARQ process ID to the second initial transmission if it is determined that the retransmission of the first initial SPS transmission having the first HARQ process ID is not expected to occur after the second initial transmission."

Claim 1 of the auxiliary request replaces the following wording in claim 1 according to the main request:

- "explicitly assigning" is replaced by the wording "explicitly assigning, on receipt of a non-acknowledgement "NACK" message relating to a transmission having a first HARQ process ID," and
- "if it is determined that the retransmission" by the wording "if it is determined, by receipt of an acknowledgement "ACK" message relating to a transmission having a first HARQ process ID, that retransmission".

Both requests comprise further independent claims directed to an access device (claim 3) adapted to perform the method of claim 1 and to user equipment (claim 6) adapted to work together with the access device.

Reasons for the Decision

1. Admissibility of the appeal

The appeal complies with Articles 106 to 108 EPC (cf. point II above) and is therefore admissible.

2. Non-attendance at oral proceedings

The appellant decided not to attend the scheduled oral proceedings. Pursuant to Article 15(3) RPBA, the board is not obliged to delay any step in the appeal proceedings, including its decision, by reason only of the absence at the oral proceedings of any party duly summoned who may then be treated as relying only on its written case.

Hence, the board was in a position to announce a decision at the end of the oral proceedings.

3. Article 54 EPC

3.1 Main request

The main request is identical to the main request which was refused by the examining division for lack of novelty of independent claims 1, 3 and 6 vis-à-vis D3.

The appellant did not challenge the finding that D3 disclosed a method for assigning a HARQ process ID for a semi-persistent scheduling, SPS, wherein:

- when a retransmission associated with a first initial SPS transmission having a first HARQ process ID does not occur after a second initial transmission previously configured with SPS resource, the first HARQ process ID is also assigned to the second initial transmission;
- when the retransmission associated with the first initial transmission having the first HARQ process ID occurs after the second initial transmission configured with SPS resource, a second, different, HARQ process ID is assigned to the second initial transmission, the

second HARQ process ID being explicitly assigned via physical downlink control channel - PDCCH - signalling.

The appellant contested that D3 discloses the step defined in claim 1 of determining whether the retransmission associated with the first initial transmission is expected to occur after the second initial transmission.

The board however agrees with the examining division that this step is, at least implicitly, disclosed in D3.

In that respect, D3 teaches in section 2.2.2 in relation to Figure 3, that, if the HARQ process ID for the first initial transmission ("PID = x") is still being used for retransmission at the time of the second initial transmission ("on the next initial persistent scheduling time instance"), the access device ("eNB") will choose another free HARQ process ID ("PID = y") to transmit the second initial transmission (see the fifth arrow from the top of Figure 3). Further, D3 teaches that if before a third initial transmission ("third persistent scheduling occasion"), the two HARQ process IDs ("PID = X" and "PID = y") are finished, then the third initial transmission is implicitly assigned the first HARQ process ID ("PID = x"). Assessing as in D3 that PID = x is still being used on the second initial transmission, i.e. still being used at the time of the second initial transmission, means that a determination is made in D3 as to whether the first HARQ process, with PID = x, will be finished or not at the time of the second initial transmission. Further, Figure 3 shows that the last message received by the access device before the second initial transmission is a NACK for PID = x. It is therefore determined by the access

device during the time between receipt of this NACK and the second initial transmission that the first initial transmission has not been acknowledged and thus that a retransmission for PID = x is expected to occur after the second initial transmission.

The appellant further considered the case in which the access device in D3 was still waiting to receive the ACK or NACK message in relation to the first initial transmission with assigned PID = x at the time of the second initial transmission. The board agrees with the appellant that, since no ACK for PID = x had been received, PID = y was assigned by the method of D3 to the second initial transmission. The appellant argued that the claimed invention on the contrary would in that case not assign PID = y to the second initial transmission, since no retransmission of the first initial transmission had been scheduled. The board holds however that the lack of receipt of any ACK for PID = x implies in any SPS system that a retransmission for PID = x is scheduled, so that the alleged invention would also assign PID = y to the second initial transmission, like the method of D3.

The appellant further argued that D3 explicitly taught the skilled person to make a determination at the next persistent scheduling. It is however clear from the above assessment of D3 by the board that D3 makes a determination from NACK information received before the second initial transmission for a retransmission occurrence after the second initial transmission.

The appellant did not attempt to rebut these arguments, which were set out in the communication accompanying the summons to oral proceedings, and the board sees no

reason to deviate from its preliminary opinion. For these reasons the board judges that the subject-matter of claim 1 is already disclosed in D3 (Article 54 EPC).

The observations made above in respect of claim 1 (method) apply to the corresponding independent claims 3 (access device) and 6 (user equipment).

3.2 Auxiliary request

Claim 1 adds to claim 1 according to the main request that:

- the step of explicitly assigning the second HARQ process ID to the second initial transmission is performed on receipt of a non-acknowledgement NACK message relating to the first initial transmission, and that:
- the step of assigning the first HARQ process ID to the second initial transmission is performed by receipt of an acknowledgement ACK message relating to the first initial transmission.

The board holds that these features are already disclosed in Figure 3 of D3, which shows that, after receipt of the second NACK for PID = x (fourth arrow from the top), PID = y is assigned to the second initial transmission (fifth arrow from the top), and that after receipt of the first ACK for PID = x (eighth arrow from the top), PID = x is assigned to the following initial transmission.

For these reasons, the board judges that claim 1 and corresponding claims 3 and 6 do not meet the requirements of Article 54 EPC, having regard to the disclosure of D3.

4. Conclusion

Neither of the two requests of the appellant is allowable under Article 54 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