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**Datasheet for the decision  
of 9 January 2020**

**Case Number:** T 1907/15 - 3.5.03

**Application Number:** 07023252.5

**Publication Number:** 1928132

**IPC:** H04W76/04, H04L1/18

**Language of the proceedings:** EN

**Title of invention:**

Method of enhancing continuous packet connectivity in a wireless communications system and related apparatus

**Patent Proprietor:**

Innovative Sonic Limited

**Opponent:**

Telefonaktiebolaget L M Ericsson (publ)

**Headword:**

Enhancing continuous packet connectivity/INNOVATIVE SONIC

**Relevant legal provisions:**

EPC Art. 123(2)

**Keyword:**

Amendments - added subject-matter (yes): meaning of "when" is context-dependent



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Case Number: T 1907/15 - 3.5.03

**D E C I S I O N**  
**of Technical Board of Appeal 3.5.03**  
**of 9 January 2020**

**Appellant:** Innovative Sonic Limited  
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**Representative:** Grünecker Patent- und Rechtsanwälte  
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**Representative:** Hoffmann Eitle  
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**Decision under appeal:** **Decision of the Opposition Division of the  
European Patent Office posted on 14 July 2015  
revoking European patent No. 1928132 pursuant to  
Article 101(3) (b) EPC.**

**Composition of the Board:**

**Chair** K. Bengi-Akyürek  
**Members:** T. Snell  
R. Winkelhofer

## Summary of Facts and Submissions

- I. This appeal has been lodged by the patent proprietor against the decision of the opposition division revoking the opposed patent on the ground, *inter alia*, that claim 1 as granted related to subject-matter which extended beyond the content of the application as filed (Articles 100(c) and 123(2) EPC). The same ground was invoked in the case of claim 1 of auxiliary request 2, whereas auxiliary requests 1 and 3 were rejected on the ground of lack of novelty of the subject-matter of claim 1. The opposition division held however that claim 1 of auxiliary request 1 did not infringe Article 123(2) EPC.
- II. The appellant requests that the decision under appeal be set aside and that the patent be maintained in amended form on the basis of one of auxiliary requests 1 to 3 all as filed with the submission dated 22 May 2015 during the opposition proceedings, re-designated at the oral proceedings (see point V below) as the main request and auxiliary requests 1 and 2.
- III. The respondent (opponent) requests that the appeal be dismissed.
- IV. In a communication accompanying a summons to oral proceedings, the board gave its preliminary view, *inter alia*, that claim 1 of none of the claim requests on file complied with Article 123(2) EPC.
- V. Oral proceedings were held on 9 January 2020, at the end of which the chair announced the board's decision.
- VI. Claim 1 of the **main request** reads as follows:

"A method of enhancing continuous packet connectivity, abbreviated to CPC, for a user equipment, called UE hereinafter, in a wireless communications system, the method comprising:

activating a discontinuous packet operation according to a status variable (302); and performing the following steps when initiating a cell update procedure (304):

- (1) moving to CELL\_FACH state,
- (2) selecting a suitable UMTS radio access (UTRA) cell, and
- (3) submitting a CELL UPDATE message, wherein

when moving to CELL\_FACH state, moreover re-determining the status variable and

setting the status variable to be "FALSE" if the status variable is originally set to be "TRUE",

clearing a parameter variable corresponding to the discontinuous packet operation,

stopping all related activities of the discontinuous packet operation when a cell update procedure is initiated (304),

where the status variable is CPC\_DTX\_DRX\_STATUS variable, and the parameter variable is CPC\_DTX\_DRX\_PARAMS variable."

VII. Claim 1 of **auxiliary request 1** reads as follows:

"A method of enhancing continuous packet connectivity, abbreviated to CPC, for a user equipment, called UE hereinafter, in a wireless communications system, the method comprising:

activating a discontinuous packet operation according to a status variable (302); and performing the following steps when initiating a cell update procedure (304):

- (1) moving to CELL\_FACH state,
- (2) selecting a suitable UMTS radio access (UTRA) cell, and
- (3) submitting a CELL UPDATE message, wherein

the cell update procedure is initiated due to radio link failure, radio link control unrecoverable error or failed transmission of a UE CAPABILITY INFORMATION message; and

when moving to CELL\_FACH state, moreover re-determining the status variable and stopping all related activities of the discontinuous packet operation when a cell update procedure is initiated (304)."

VIII. Claim 1 of **auxiliary request 2** is the same as claim 1 of the main request except that the wording

"the cell update procedure is initiated due to radio link failure, radio link control unrecoverable error or failed transmission of a UE CAPABILITY INFORMATION message; and"

is inserted following the wording "(3) submitting a CELL UPDATE message, wherein".

## **Reasons for the Decision**

### 1. *Background*

The patent relates to discontinuous transmission and reception operation ("DTX/DRX operation") in the context of continuous packet connectivity (CPC). In essence, as is known in the prior art (which here refers to various standard documents for 3G mobile communications systems), continuous packet connectivity enables the mobile terminal (user equipment UE) to remain in CELL\_DCH state (= "Cell Dedicated Channel") even though transmission and reception during DTX/DRX operation is not actually continuous in order to save battery power. Discontinuous operation is indicated by the status variable "CPC\_DTX\_DRX\_STATUS" being either set to "TRUE" or "FALSE".

### 2. *The technical problem as set out in the description*

In accordance with the prior art, when radio link failure occurs, the UE moves to CELL\_FACH state ("Cell Forward Access Channel") and selects a suitable cell for submitting a CELL UPDATE message (cf. the present description, page 10, lines 8-11; NB: all citations from the description refer to the version as originally filed with the EPO). However, as stated in the description (cf. page 10, lines 11-17), as no action with regard to the status variable CPC\_DTX\_DRX\_STATUS is specified, the UE of the prior art continues applying DTX/DRX operation in CELL\_FACH state, which is

not applicable for DTX/DRX operation. This may cause severe errors in the physical and MAC layers of the UE.

3. *The described solution*

On page 17 of the description, which is the only passage which might be a basis for the claimed solution, the following is stated (cf. lines 2-13):

"... When the cell update procedure is initiated, the UE moves to CELL FACH state for selection of a suitable UTRA cell, and moreover the CPC DTX DRX STATUS variable is re-determined by determining whether all of the abovementioned conditions are met for setting the CPC\_DTX\_DRX\_STATUS variable to be "TRUE". Since the UE no longer stays in CELL\_DCH state, the conditions required setting the CPC\_DTX\_DRX\_STATUS variable to be "TRUE" are not all met. The UE then performs corresponding actions, which include:

1. set the CPC\_DTX\_DRX\_STATUS variable to be "FALSE" if the CPC\_DTX\_DRX\_STATUS variable is originally set to be "TRUE";
2. clear the CPC\_DTX\_DRX\_PARAMS variable;
3. stop all related activities of DTX/DRX operation ..." [board's underlining].

4. *Main request - claim 1 - Article 123(2) EPC*

4.1 In accordance with the established jurisprudence of the boards of appeal, in order to comply with Article 123(2) EPC, an amendment must be directly and unambiguously derivable from the application documents as filed, taking account of matters implicit to the

person skilled in the art. The essential idea is that the skilled person should not be presented with new information.

4.2 With respect to claim 1, it is first necessary to consider the meaning of the term "when" in the two steps "when initiating a cell update procedure" and "when moving to CELL\_FACH state".

4.3 The verbs "initiate" and "move" describe events with a limited time duration. The conjunction "when" defines a moment or period of time when these events occur. That being said, "initiating a cell update procedure", in line with claim 1, is an event in which steps (1), (2) and (3) are carried out in sequence and is therefore not a single moment but a time span. On the other hand, "moving to CELL\_FACH state" is only a single step (at least, as claimed) and therefore is assumed to be relatively time-constrained.

4.4 The term "when" can have an alternative meaning as a condition. However, with regard to claim 1, it comprises both the features

"(1) moving to CELL\_FACH state", and

"when moving to CELL\_FACH state ...".

Considering these two phrases together, from a linguistic point of view, the term "when" logically indicates a time relationship and not a condition ("if"), given that the first phrase already satisfies the condition of moving to CELL\_FACH state. It follows that "when moving to CELL\_FACH state" means "at the same time as moving to CELL\_FACH state".



4.5 The term "moreover" in claim 1 appears to be redundant because the "re-determining" and other associated steps are the first and only ones to which the constraint "when moving to CELL\_FACH state" refers.

4.6 In view of the above, the most linguistically natural and technically plausible interpretation of claim 1 is that the re-determining and associated steps occur as part of the time-limited step (1) of claim 1 ("moving to CELL\_FACH state"), and thus before steps (2) and (3).

4.7 This solution however does not follow directly and unambiguously from the passage of the description on page 17 cited above, since the expression "the UE moves to CELL\_FACH state for selection of a suitable UTRA cell" in conjunction with "and moreover the CPC\_DTX\_DRX\_STATUS variable is re-determined" leaves it entirely open when the actual selection of a suitable UTRA cell occurs with respect to (2) selection of a suitable cell and (3) submission of a CELL UPDATE message. In other words, the skilled person is now presented with new information, namely the concept of carrying out the re-determining and associated steps as part of step (1), *before* steps (2) and (3).

Claim 1 therefore does not comply with Article 123(2) EPC.

4.8 In this, the board disagrees with the reasoning and conclusion given by the opposition division in point 2.3 of the impugned decision. The opposition division argued there that, having regard to the problem as set out on page 10, lines 8-11 of the description, it was clear that moving to CELL\_FACH state was the earliest point in time at which the

problem occurred and therefore implicitly the moment when re-determination took place. For the board, this is rather a matter of obviousness. As correctly pointed out by the respondent, other solutions are also possible within the scope of the disclosure on page 17 of the description.

5. The appellant further argues that the term "when" was commonly used in the standard documentation to represent something happening "when" a condition is met. The skilled person would understand the use of the term "when" in claim 1 in the same broad sense. The appellant further argues that steps (1), (2) and (3) were independent and therefore it did not matter when the re-determining and associated steps occurred in relation to steps (2) and (3). Claim 1 therefore merely reflected the same as what was disclosed on page 17 of the description.
6. The board however finds these arguments unconvincing. Firstly, the meaning of the term "when" depends always on the particular context. In the present context, "when" defines a temporal relationship for the reasons given above. No general meaning can be inferred from alleged other uses of "when" in the standard documentation. Secondly, steps (1), (2) and (3) of claim 1 are not independent but define an inter-dependent sequence, since each step logically only occurs once the previous step has been carried out.
7. *Auxiliary requests 1 and 2 - claim 1 - Article 123(2) EPC*

The same objection applies, *mutatis mutandis*, to claim 1 of auxiliary requests 1 and 2. This was not contested by the appellant.

8. *Conclusion*

As there is no allowable request, the appeal must be dismissed.

**Order**

**For these reasons it is decided that:**

The appeal is dismissed.

The Registrar:

The Chair:



M. Patin

K. Bengi-Akyürek

Decision electronically authenticated