

Internal distribution code:

- (A) [-] Publication in OJ
(B) [-] To Chairmen and Members
(C) [X] To Chairmen
(D) [-] No distribution

**Datasheet for the decision
of 9 October 2015**

Case Number: T 1458/12 - 3.5.05

Application Number: 03010042.4

Publication Number: 1361707

IPC: H04L12/56, H04L1/18

Language of the proceedings: EN

Title of invention:

Abnormal case handling for acknowledged mode transmission and unacknowledged mode transmission

Patent Proprietor:

Innovative Sonic Limited

Opponent:

Telefonaktiebolaget LM Ericsson (publ)

Headword:

Treating abnormal packets/INNOVATIVE SONIC

Relevant legal provisions:

EPC Art. 56, 107, 108, 123(2)
EPC R. 99(1)(a), 99(2), 101(1)
RPBA Art. 12(2), 13(1), 13(3)

Keyword:

Admissibility of appeal - (yes)
Admission of late-filed claim requests - (yes)
Added subject-matter - main request (yes)
Inventive step - auxiliary requests (no)

Decisions cited:

G 0001/12, G 0001/13, T 0745/03, T 0221/06, T 2330/10,
T 0786/11

Catchword:

see point 1



Beschwerdekammern
Boards of Appeal
Chambres de recours

European Patent Office
D-80298 MUNICH
GERMANY
Tel. +49 (0) 89 2399-0
Fax +49 (0) 89 2399-4465

Case Number: T 1458/12 - 3.5.05

D E C I S I O N
of Technical Board of Appeal 3.5.05
of 9 October 2015

Appellant:
(Patent Proprietor)

Innovative Sonic Limited
2nd Floor, The Axis,
26 Cybercity,
Ebene 72201
Mauritius (MU)

Representative:

Grünecker Patent- und Rechtsanwälte
PartG mbB
Leopoldstraße 4
80802 München (DE)

Respondent:
(Opponent)

Telefonaktiebolaget LM Ericsson (publ)
164 83 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 13 April 2012
revoking European patent No. 1361707 pursuant to
Articles 101(2) and 101(3) (b) EPC.**

Composition of the Board:

Chair

A. Ritzka

Members:

K. Bengi-Akyuerek

F. Blumer

Summary of Facts and Submissions

- I. The appeal is against the decision of the opposition division to revoke the present European patent on the grounds of added subject-matter (Article 100(c) EPC in conjunction with Article 123(2) EPC) with respect to the claims as granted (main request), lack of novelty (Article 54 EPC) in respect of amended claims of a first and third auxiliary request and non-admittance of a second and fourth auxiliary request into the opposition proceedings. Furthermore, the opposition division admitted late-filed documents A6 and A7 into the proceedings due to their *prima facie* relevance, and found that the application's priority was not validly claimed.
- II. The documents cited in the decision under appeal included the following:
- A1: ETSI TS 125 322 V3.10.0 (2002-03), Technical Specification, Release 1999, pp. 1-74, March 2002;
- A2: "Handling abnormal UMD PDUs and AMD PDUs", Change Request, 3GPP TSG-RAN WG2 Meeting #29, Tdoc R2-020910, ASUSTeK, pp. 1-6, May 2002;
- A3: "Handling abnormal UMD PDUs and AMD PDUs", Change Request, 3GPP TSG-RAN WG2 Meeting #29, Tdoc R2-021218, TSG-RAN WG2, pp. 1-5, May 2002;
- A6: "RLC Error Handling", TSG-RAN Working Group 2, TSGR2#5(99)551, Mitsubishi Electric/NTT DoCoMo, pp. 1-2, July 1999;
- A7: 3G TS RAN 25.322 V1.1.0 (1999-06), Technical Specification, pp. 1-66, June 1999.
- III. The notice of appeal of the appellant (patent proprietor) indicated that an appeal was lodged "in the

name and on behalf of our client

Innovative Sonic Limited
P.O. Box 957
offshore incorporations centre
Road Town, Tortola

BRITISH VIRGIN ISLANDS".

- IV. With the statement setting out the grounds of appeal, the appellant filed new sets of claims according to a main request (corresponding to the claims as granted) and thirty-one auxiliary requests alongside amended description pages. It requested that the decision under appeal be set aside and that the patent be maintained on the basis of the main request or any of the auxiliary requests. Also, it submitted that the claimed priority was valid and that therefore post-published documents A2 and A3 could not be regarded as prior art under Article 54(2) EPC and, further, that documents A2, A3 and A6 were not publicly available.
- V. With a letter of reply, the respondent (opponent) requested that the appeal be rejected as inadmissible or that the appeal be dismissed, and provided arguments in support of those requests. With regard to the purported inadmissibility of the appeal, it further filed two documents, namely a letter from the appellant's then representative of 27 February 2012 (document A8) and an excerpt from the British Virgin Islands Business Companies Act, 2004 (document A9) as evidence that, at the time the appeal was filed, the appellant had ceased to exist due to discontinuation of the company Innovative Sonic Limited in BVI.

VI. In response to a communication of the board under Rule 100(2) EPC inviting the appellant and its representative to assist in clarifying the particular circumstances of the discontinuation and to file an authorisation under Rule 152(1) EPC, the appellant requested by letter dated 16 April 2014 that the "patentee's address" be changed in two steps, firstly "from

INNOVATIVE SONIC LIMITED
P.O. Box 957
offshore incorporations centre
Road Town, Tortola
British Virgin Islands

to

INNOVATIVE SONIC LIMITED
4th Floor, Unicorn Centre
18N Frere Felix De Valois Street
Port Louis
Mauritius"

and then, in a second step (as of February 2014), "to

INNOVATIVE SONIC LIMITED
2nd Floor, The Axis,
26 Cybercity,
Ebene 72201,
Mauritius".

This registration of an address change was requested because the original address given in the notice of appeal had been incorrect since 20 October 2010. In addition, the appellant filed, besides the authorisation of its then representative, a

"certificate of discontinuance" (from the authorities of the British Virgin Islands) and a "certificate of registration by continuation" (from the authorities of the Republic of Mauritius) as evidence that the above change constituted a mere change of address.

VII. In response to another communication of the board under Rule 100(2) EPC asking the appellant for clarification as regards the appellant's allegation that the company "Innovative Sonic Limited" did not exist under the laws of the Republic of Mauritius before 20 October 2010, the appellant, by a letter dated 15 July 2014, indicated that its representation had been taken over by another representative, filed several exhibits E4 to E11, and referred to the minutes of the oral proceedings held in case T 786/11, which was treated by the same board in a different composition, as evidence that the requested change of address did not constitute a change of the appellant's legal entity.

VIII. In an annex to the summons to oral proceedings pursuant to Article 15(1) RPBA, the board gave its preliminary opinion on the appeal. In particular, it stated that the appeal was considered to be admissible based on the reasoning of case T 786/11, and made observations as regards the ground of Article 123(2) EPC and the validity of the patent's priority claim under Article 87(1) EPC, the question whether documents A2, A3 and A6 could be considered as state of the art under Article 54(2) EPC, the matter of novelty and inventive step (Articles 54 and 56 EPC) in view of A1, A2, A3, A6 and A7 and the admissibility of the auxiliary requests on file.

IX. With a letter dated 9 September 2015 in response to the summons, the respondent expanded upon arguments as to

the admissibility of the appeal and the lack of novelty and inventive step having regard to A1 to A4, A6 and A7.

- X. With its letter of 9 September 2015 in reply to the summons, the appellant filed new sets of claims according to a main request (corresponding to a former auxiliary request) and nine auxiliary requests (partly corresponding to former auxiliary requests filed in the opposition and appeal proceedings), and provided its observations on the board's communication under Article 15(1) RPBA.

- XI. With another letter of reply of 30 September 2015, the respondent submitted counter-arguments as to the admissibility of the newly filed auxiliary requests and their allowability under Articles 123(2) and (3), 84 and 83 EPC.

- XII. Oral proceedings were held as scheduled on 9 October 2015, during which the admissibility of the appeal as well as the admissibility and allowability of the main request and first to third auxiliary requests were discussed.

The appellant's final request was that the decision under appeal be set aside and that the patent be maintained on the basis of the main request or, subsidiarily, on the basis of either of the first and third auxiliary requests, all requests as filed with letter dated 9 September 2015.

The respondent's final request was that the appeal be dismissed.

At the end of the oral proceedings, the decision of the

board was announced.

XIII. Claim 1 of the **main request** reads as follows:

"A method to reduce the occurrences of a Radio Link Control, abbreviated hereinafter as RLC, reset or the chance of losing a Hyper Frame Number, abbreviated hereinafter as HFN, synchronization during data block transmission between a sender and a receiver in a wireless communication system, wherein data blocks may contain different status related fields, wherein the method comprising the steps of:

At the receiver:

receiving a data block from the sender while the data transmission operation is in an Acknowledged mode or in an Unacknowledged mode (5; 150); and

determining the status of status related fields of the received data block (10, 40; 155);

characterized in that

the data block received in Unacknowledged mode is ignored and treated as if it has never been received (161) while the receiver maintains the HFN values and discards relevant SDUs accordingly if the 'Length Indicator' has an invalid or reserved value (155); and

the data block received in Acknowledged mode is ignored as if it has never been received while setting up the content of a status report when a receiving status report is prepared (51) if the 'Length Indicator' has an invalid or reserved

value (40)".

Claim 1 of the **first auxiliary request** comprises all the features of claim 1 of the main request except that its last paragraph now reads (amendments to the main request underlined by the board):

"the data block received in Acknowledged mode is ignored and treated as if it has never been received while setting up the content of a status report when a receiving status report is prepared (51), if the 'Length Indicator' has an invalid or reserved value (40)."

Claim 1 of the **third auxiliary request** comprises all the features of claim 1 of the main request except that its characterising part now reads:

"the data block received in Unacknowledged mode is discarded and, instead of treating it as missing, treated as if it has never been received (161) while the receiver maintains the HFN values and discards relevant SDUs accordingly, if the 'Length Indicator' has an invalid or reserved value (155); and

the data block received in Acknowledged mode is discarded and, instead of treating it as missing, treated as if it has never been received while setting up the content of a status report when a receiving status report is prepared (51), if the 'Length Indicator' has an invalid or reserved value (40)."

Reasons for the Decision

1. *Admissibility of the appeal*

The respondent requested that the appeal be rejected as inadmissible based on three reasons:

- 1) The appellant's change of address from the British Virgin Islands (BVI) to Mauritius did not constitute a "mere change of address" but also implied a change of the State of the company's residence and thus a change in the corresponding laws of incorporation from BVI to Mauritian law. This corresponded to a "cross-border transfer of jurisdiction". Such a transfer of jurisdiction was to be indicated within the two-month time limit for filing an appeal under Article 108, first sentence, EPC as the State of the appellant's residence was in particular decisive for the application of Articles 14(4) and 133(2)(3) EPC according to G 1/12, reasons 21. Even if such a transfer of jurisdiction were performed in a way that it did not create a new legal entity, this did not mean that the legal entity might be satisfactorily identified in the notice of appeal if the State of residence (and thereby the laws of incorporation) indicated in the notice of appeal no longer applied. Therefore, the appeal did not comply with Article 107, first sentence, EPC in conjunction with Rule 99(1)(a) EPC, and was to be rejected as inadmissible under Rule 101(1) EPC.
- 2) The notice of appeal was filed with the "wrong address" although the appellant's representative was aware of the change of address and in particular of the cross-border transfer of

jurisdiction as evidenced by A8. Furthermore, the representative had failed to inform the EPO about it in due time. Thus, it could not be established that it was the appellant's true intention to properly identify itself as "Innovative Sonic Limited based in Mauritius" within the two-month time limit for filing an appeal under Article 108, first sentence, EPC. Hence, the appeal failed to comply with Article 107, first sentence, EPC, and was therefore to be rejected as inadmissible under Rule 101(1) EPC.

- 3) The appellant's statement setting out the grounds of appeal comprised in total thirty-two claim requests, where complex procedural declarations made it impossible for the public to ascertain clearly and concisely in which order the appellant's requests were to be considered, contrary to Article 12(2), second sentence, RPBA. Hence, the number of auxiliary requests presented was excessive, amounted to an unallowable "pick and mix" approach and impeded the course of the proceedings as a whole due to the unclear requests. Therefore, the appeal did not comply with Article 108, third sentence, EPC in conjunction with Rule 99(2) EPC as well as Article 12(2) RPBA, and was thus to be rejected as inadmissible under Rule 101(1) EPC.

1.1 *Admissibility under Article 107 and Rule 99(1)(a) EPC*

- 1.1.1 Reason 1) is concerned with the question whether the party affected by the decision of the first-instance department is the same as the legal entity having filed an appeal against that decision in order for the appeal to comply with Article 107, first sentence, EPC in

conjunction with Rule 99(1)(a) EPC.

The board is satisfied, in applying the principle of free evaluation of evidence (see e.g. G 1/12 of 30 April 2014, reasons 31), that the appellant provided sufficient evidence to prove that the appellant "Innovative Sonic Limited" had not changed its legal identity by moving from BVI to the Republic of Mauritius and that therefore the requested change of address represents a change of address only. This conclusion is moreover in agreement with the finding in cases T 786/11 of 12 June 2014 (cf. reasons 2) and T 2330/10 of 19 November 2014 (cf. reasons 1) where the factual situation is almost identical. In particular, the respondent failed to conclusively and cogently contest the authenticity of the corresponding certificates presented by the appellant as regards the discontinuance of the company in BVI and its continuation in the Republic of Mauritius.

As to the issue of "cross-border transfer of jurisdiction", the board refers to decision G 1/13 of 25 November 2014, according to which the EPO has to recognise that matters relating to the incorporation of a legal entity such as its existence or cessation are governed exclusively by national law (cf. reasons 5.1). By analogy, in the present case the board, in view of the evidence provided, has to regard as a fact the appellant's discontinuation and continuation across jurisdiction borders (i.e. the laws of BVI and Republic of Mauritius). Furthermore, the provisions of Article 14(4) EPC (i.e. residence-dependent provisions as regards the language of documents filed) and Article 133(2), (3) EPC (i.e. residence-dependent requirements as to representation) have no bearing on the present case, since BVI is just as less an EPC

contracting state as the Republic of Mauritius. Accordingly, the notice of appeal was filed on behalf of a legal person that was party to the first-instance proceedings within the meaning of Article 107, first sentence, EPC.

- 1.1.2 Reason 2) is concerned with the question whether the appellant was identifiable according to Rule 99(1) (a) EPC within the two-month period for filing an appeal under Article 108, first sentence, EPC, whether the address of the appellant given in the notice of appeal was wrong due to an error and whether it could be corrected at the appellant's request in response to a communication of the board under Rule 101(2) EPC.

The board is satisfied that the notice of appeal indicated the appellant's name ("INNOVATIVE SONIC LIMITED"), its address ("P.O. Box 957; offshore incorporations centre; Road Town, Tortola"), its nationality and the State in which its residence or principal place of business is located ("BRITISH VIRGIN ISLANDS") in compliance with Rules 99(1) (a) and 41(2) (c) EPC, without giving rise to the remedy of any deficiency within the meaning of Rule 101(1) and (2) EPC. Thus, the appellant was identifiable within the two-month period under Article 108, first sentence, EPC. The board is also satisfied that a "wrong address" may be corrected pursuant to Rule 139, first sentence, EPC (see e.g. G 1/12, reasons 34 and 35) and that the appellant requested faultlessly that its originally indicated address be changed due to an "objectively incorrect designation of this address" (cf. appellant's letter dated 16 April 2014, section 2; see point VI above) - regardless of whether it was considered incorrect *before* or *after* 20 October 2010. In this context, the board adds that - although it is advisable

that a party notifies an address change as quickly as possible - there is no provision in the EPC prescribing a specific time period for indicating a party's address change, whether or not the corresponding representative is aware of that change. Also, the correspondence with the appellant was not affected since it was still in place via the address of the then representative. Hence, the notice of appeal was filed on behalf of a legal person that was clearly identifiable within the two-month period for filing an appeal under Article 108, first sentence, EPC and Rule 99(1)(a) EPC.

1.2 *Admissibility under Article 108 and Rule 99(2) EPC*

Reason 3) is concerned with the question whether the appellant's statement setting out the grounds of appeal as a whole indicated the reasons for setting aside the decision impugned, or the extent to which it is to be amended within the meaning of Article 108, third sentence, EPC in conjunction with Rule 99(2) EPC.

The board, however, finds that it was objectively derivable from the statement setting out the grounds of appeal (see section I), without undue burden, that the appellant requested that the decision under appeal be set aside and that the opposed patent be maintained on the basis of the claims as granted as its main request or of any of thirty-one auxiliary requests submitted with the statement setting out the grounds of appeal. The board also considers that, in the present case, the large number of auxiliary requests appears to be commensurate with the number and complexity of issues raised by the respondent in the opposition proceedings and that the order of those auxiliary requests was at least implicitly derivable from their numbering and thus did not correspond to a "pick and mix approach" in

the sense of T 745/03 and T 221/06 cited by the respondent. Therefore, the appeal also complies with Article 108, third sentence, EPC and Rule 99(2) EPC as well as Article 12(2), second sentence, RPBA.

1.3 In view of the above, the board concludes that the appeal is admissible.

2. MAIN REQUEST

Independent claims 1 and 3 of this request differ from the independent claims as granted substantially in that, according to their characterising portion, the receiver in the Unacknowledged mode maintains "the HFN values" (rather than "a[n] HFN value") and "discards relevant SDUs accordingly", and that the corresponding data blocks received are ignored and treated as if they have never been received, if their Length Indicator (rather than "one particular status related field") has an invalid or reserved value (rather than "matches one of a plurality of abnormal conditions").

2.1 Article 123(2) EPC

Present claim 1 includes in the second part of its characterising portion the phrase that "the data block received in Acknowledged mode is ignored as if it has never been received" (introduced with the applicant's letter dated 6 October 2004; emphasis added). However, the application as filed teaches that the AMD PDU is ignored and treated as never received when an abnormal PDU is reported (see paragraph [0027], first sentence in conjunction with Fig. 7). Contrary to the appellant's view that the expression "ignored as if it has never been received" was synonymous with the statement "ignored and treated as if it has never been

received", the board rather holds that this cannot be derived linguistically or technically from the wording of claim 1 or paragraph [0027] of the application as filed.

2.2 Therefore, the main request is not allowable under Article 123(2) EPC.

3. FIRST AUXILIARY REQUEST

Claim 1 of this request differs from claim 1 of the main request in that it now specifies that the data block received in AM is ignored and treated as if it has never been received and differs from claim 1 as granted essentially in that the respective data blocks received are ignored and treated as if they have never been received if their Length Indicator (rather than "one particular status related field") has an invalid or reserved value (rather than "matches one of a plurality of abnormal conditions").

3.1 *Admission into the appeal proceedings*

The claims of this request were filed for the first time with the appellant's letter of reply to the summons to oral proceedings before the board, i.e. at a very late stage of the overall procedure. The board nonetheless decided to admit them into the appeal proceedings under Article 13(1) and (3) RPBA, since it holds that the amendments to claim 1 were made in response to the board's communication accompanying the summons, that they further limit the underlying subject-matter and did not render the assessment of inventive step more complex, so that the board and the respondent could deal with them without having to adjourn the oral proceedings.

3.2 Article 123(2) and (3) EPC

The amendments made to claim 1 are supported by paragraphs [0026] and [0028] of the application as originally filed. In particular, the board, contrary to the respondent's view, regards the fact that present claim 1 requires that the receiver has to check whether a particular status-related field, namely the "Length Indicator", contains a particular value, i.e. an "invalid or reserved value", constitutes a restriction rather than an extension of its scope. In addition, the board does not agree with the respondent that a Length Indicator containing a reserved value does not represent an "abnormal condition" in the sense of the claims as granted and thus results in an extension of the scope of protection, since the skilled reader in the field of 3GPP-based systems would know that, in the present context, such reserved values represent undesirable or unexpected values and thus are *abnormal* (see also paragraphs [0008] and [0013] as well as claim 6 of the application as originally filed). Thus, the board is satisfied that the above amendments comply with the requirements of Article 123(2) and (3) EPC.

3.3 Article 52(1) EPC: novelty and inventive step

In the board's judgment, present claim 1 does not meet the requirements of Article 56 EPC, for the reasons set out below:

3.3.1 Present claim 1 comprises the following features (as labelled by the board):

A method to reduce the occurrences of an RLC (Radio Link Control) reset or the chance of losing an HFN

(Hyper Frame Number) synchronisation during data block transmission between a sender and a receiver in a wireless communication system, wherein data blocks may contain different status-related fields, wherein the method comprises the steps, performed at the receiver, of

- A) receiving a data block from the sender while the data transmission operation is in an Acknowledged mode (AM) or in an Unacknowledged mode (UM);
- B) determining the status of status-related fields of the received data block;
- C) ignoring the data block received in UM and treating it as if it has never been received, while the receiver maintains the HFN values and discards relevant SDUs accordingly, if the "Length Indicator" has an invalid or reserved value;
- D) ignoring the data block received in AM and treating it as if it has never been received, while setting up the content of a status report when a receiving status report is prepared, if the "Length Indicator" has an invalid or reserved value.

3.3.2 The board considers the 3GPP-based standard document A1 to be a suitable starting point for assessing novelty and inventive step of the claimed subject-matter. It was common ground during the oral proceedings before the board that A1 discloses features A) and B) of claim 1 (see e.g. A1, pages 22 and 23, sections 9.2.1.3 and 9.2.1.4).

3.3.3 As to features C) and D), the board accepts that the expression "ignoring the data block received" means that the corresponding data block is *discarded*. Furthermore, it understands the phrase "treated as if

it has never been received" as implying that the receiver of a data block (i.e. protocol data unit, PDU) received in UM (i.e. a UM PDU) does *not* change the respective HFN and that the receiver of a data block received in AM (i.e. an AM PDU) does *not* send a status report including negative acknowledgements associated with that AM PDU to avoid invoking unnecessary RLC reset or HFN re-synchronisation procedures (see also application as filed, page 6, penultimate line to page 7, line 8 and the statement setting out the grounds of appeal, page 11, last paragraph). In other words, an abnormal data packet (PDU) is not treated as a "missing PDU" and thus is no longer waited for by the RLC receiver. In this regard, an invalid Length Indicator is a Length Indicator which has a value larger than the size of the corresponding PDU data field, whilst a reserved Length Indicator is a Length Indicator which has a value reserved for other purposes such as functions for later releases (see in particular paragraph [0012] of the original application).

- 3.3.4 In this respect, A1 teaches that, in the event that an RLC receiver receives a UMD or an AMD PDU that contains reserved or invalid values, it shall discard that PDU (see page 52, section 10.3). The valid values associated with the PDUs are summarised in section 9.2 of A1 (see pages 22 to 35). In particular, the corresponding expected values in terms of the Length Indicator are presented in section 9.2.2.8 of A1 (see pages 26 to 28). Document A1 also teaches in connection with "abnormal cases" that, where an RLC receiver receives a UMD or an AMD PDU that contains a Length Indicator which has a value larger than the PDU size or is reserved for UMD or AMD PDUs respectively, it shall not only discard that PDU but also treat it as missing (see page 56, sections 11.2.4.1 and 11.2.4.2; page 60,

sections 11.3.4.5 and 11.3.4.6). In addition, as regards feature C), A1 further indicates that HFN values are supposed to be utilised for the purpose of HFN synchronisation (see page 35, section 9.2.2.14).

- 3.3.5 However, the board agrees with the appellant that A1 fails to disclose that, if the Length Indicator of a data block received in UM or AM has an invalid or reserved value, that data block (and possibly the corresponding SDUs) is not only to be discarded but also to be treated as if it has never been received, i.e. treated as "not missing", so that the associated settings at the receiver such as HFN values and status reports remain unchanged (see also point 3.3.3 above). The board therefore considers that, contrary to the respondent's assertion, this distinguishing feature does not correspond to a "technical fiction" where "treating" merely means deeming the PDU as never received in a fictive and non-technical way.

Consequently, the subject-matter of present claim 1 is considered to be novel over A1 (Article 54 EPC).

- 3.3.6 As to the technical effect of the above-mentioned distinguishing feature, it is immediately apparent that no further actions are to be taken at an RLC receiver in such a scenario, with the consequence that a burdensome RLC reset procedure (in the AM case) or HFN re-synchronisation process (in the UM case) is effectively avoided (see also paragraphs [0015] and [0029] of the application as filed).

Concerning the objective problem to be solved by present claim 1, the appellant submitted at the oral proceedings before the board that the underlying problem was "to deal with physical-layer errors not

detected by the RLC receiver due to a CRC residue error", referring to paragraphs [0013] and [0014] of the application as originally filed. According to that passage, such a cyclic redundancy check (CRC) residue error had the implication that erroneous, i.e. "contaminated", sequence numbers of a data packet received are not detected either. This would in turn result in unnecessary RLC reset procedures (in the AM case) or unsynchronised HFN values at the sender and receiver side (in the UM case). The board, however, concurs with the respondent that the solution proposed by present claim 1, i.e. treating an abnormal data packet (UM PDU or AM PDU) as if it has never been received, does not effectively solve the above problem, since it does not constitute a countermeasure against the occurrence of such physical-layer (i.e. radio-link or bit-level) errors themselves. Rather, it represents a possible reaction to that problem, provided that the packet discarded is not so relevant for the upper-layer applications and thus can simply be dispensed with. Overall, the board instead considers the underlying objective problem to be "how to adapt the RLC reception scheme of A1 to radio-link error situations".

- 3.3.7 Starting out from the teaching of A1, the person skilled in the art would notice that the only error types with which A1 is concerned are erroneous protocol data (such as a PDU's sequence number or format), i.e. errors at a PDU level detected at the data-link (radio link control, RLC) sublayer (see e.g. section 6 on pages 15 and 16 mentioning "Protocol error detection and recovery" and in particular section 10 on page 52). The skilled person also would be aware of the undesirable fact that waiting for the retransmission of a "missing" PDU is typically associated with tedious and complex RLC reset procedures (see e.g. A1,

section 11.4, pages 61 to 64).

When confronted with the above objective problem with which the skilled person in the field of 3GPP-based mobile communications might realistically have been faced at the application's priority date, the person skilled in the art would therefore look for documents providing feasible ways and useful details of adapting the handling of abnormal data packets to environments with physical-layer (i.e. bit-level) errors. Consequently, when consulting the 3GPP-related prior art, the skilled person would come across A6, whose title ("RLC Error Handling") appears to be immediately relevant for solving the present objective problem and which is concerned with 3GPP-based RLC-error handling of different RLC-error situations. In view of the teaching of section 10.3 entitled "Invalid PDU format", the board agrees with the respondent that the skilled person's attention would be particularly attracted by section 2.2 of A6 headed "Invalid PDU reception". This section reads:

"If the RLC entity receives a PDU including unknown PDU Type or other parameters, it cannot handle this PDU. Because these errors might occur due to lower layer error (e.g. bit errors on the radio link), it isn't necessary to synchronize two peer entities. Therefore, it should discard invalid PDU and take no action as a result of that PDU".

From this teaching the skilled person would understand that, provided that the RLC receiver receives a data packet (PDU) and detects that this packet has an unknown value (unknown "other parameters") in a certain packet field, the receiver shall discard it without taking any further consequential actions, i.e. without

treating it as missing and thus waiting for its retransmission. This is also done on the basis of the fact that a state or parameter synchronisation (or reset) between the RLC sender and receiver does not make technical sense in the event of radio-link errors. As a result, A6 discloses the distinguishing feature as given in point 3.3.5 above.

3.3.8 Next, it has to be established whether the skilled person would indeed apply the implementation measures of A6 to the teaching of A1 or whether something would arguably dissuade him from leveraging those measures. In that context, the appellant contended that, according to the above teaching of A6, the RLC receiver could in fact not detect whether the PDU had an abnormal value, since the receiver could not even handle the PDU, and that "unknown parameters" could not be equated to a "Length Indicator having an invalid or reserved value" as claimed. However, the board accepts the respondent's interpretation of A6 that "cannot handle" corresponds to "cannot successfully treat" the abnormal PDU rather than not being able to process it at all. Otherwise, the passage relating to the treatment of invalid PDUs in A6 would be entirely meaningless. Furthermore, in view of the heading of the above-cited section of A6, i.e. "Invalid PDU reception", together with the fact that a reserved value corresponds to a packet-field value which may typically be reserved for "functions for future releases" (cf. application as filed, paragraph [0012], first sentence), "unknown parameters" may well be read onto a Length Indicator carrying an invalid or reserved value as claimed.

3.3.9 Thus, the skilled person would readily apply the 3GPP-related approach of A6 to the 3GPP-based system of

A1 in order to avoid an unnecessary RLC reset or re-synchronisation process, thereby arriving exactly at the subject-matter of claim 1 in an obvious manner.

3.4 In conclusion, the first auxiliary request is not allowable under Article 56 EPC.

4. THIRD AUXILIARY REQUEST

4.1 Claim 1 of this auxiliary request differs from claim 1 of the first auxiliary request in that, in its characterising portion, the term "ignored" has been replaced with the term "discarded", whilst the phrase "instead of treating it as missing" has been added. Those amendments are based e.g. on paragraphs [0026] and [0027] of the application as originally filed and result in a further clarification and limitation of the subject-matter claimed.

4.2 Hence, the observations set out in points 3.1 and 3.2 above as regards the request's admission into the appeal proceedings and the grounds of Article 123(2) and (3) EPC apply *mutatis mutandis* to the present auxiliary request. Moreover, since the interpretation of the term "ignored" and the expression "treated as if it has never been received" according to the above amendments in claim 1 has already been taken into account in the examination of the first auxiliary request (see point 3.3.3 above), it is apparent to the board that claim 1 of this request likewise lacks an inventive step, based on the reasoning set out in point 3.3 above.

4.3 Accordingly, the third auxiliary request is not allowable under Article 56 EPC either.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chair:



K. Götz-Wein

A. Ritzka

Decision electronically authenticated