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**Datasheet for the decision  
of 12 February 2008**

**Case Number:** T 1237/07 - 3.5.05

**Application Number:** 00919241.0

**Publication Number:** 1166486

**IPC:** H04L 1/18

**Language of the proceedings:** EN

**Title of invention:**

Packet discard notification for semi reliable retransmission protocol

**Applicant:**

TELEFONAKTIEBOLAGET LM ERICSSON (publ)

**Opponent:**

-

**Headword:**

Discard timer/ERICSSON

**Relevant legal provisions:**

EPC Art. 84, 113(1), 116(1), 123(2)  
EPC R. 2

**Relevant legal provisions (EPC 1973):**

EPC Art. 96  
EPC R. 24(1), 36(5), 51(4), 68(1)

**Keyword:**

Amendments - added subject matter (main request yes, auxiliary request no); Basis of decisions - opportunity to comment (yes); Procedural violation (no); Reimbursement of the appeal fee (no)

**Decisions cited:**

T1578/05

**Catchword:**

Article 96 EPC 1973 and Rule 51 EPC 1973 leave the examining division discretion to assess whether a communication is necessary or it is more appropriate to put an end to the written phase and hold oral proceedings. The right to present comments enshrined in Article 113 EPC need not be exercised in writing but may be satisfied by way of oral proceedings.



Case Number: T 1237/07 - 3.5.05

**D E C I S I O N**  
of the Technical Board of Appeal 3.5.05  
of 12 February 2008

**Appellant:** TELEFONAKTIEBOLAGET LM ERICSSON (publ)  
SE-164 83 Stockholm (SE)

**Representative:** Kühn, Friedrich Heinrich  
Ericsson AB  
Patent Unit Radio Networks  
SE-164 80 Stockholm (SE)

**Decision under appeal:** Decision of the Examining Division of the  
European Patent Office posted 15 March 2007  
refusing European application No. 00919241.0  
pursuant to Article 97(1) EPC.

**Composition of the Board:**

**Chairman:** D. H. Rees  
**Members:** A. Ritzka  
M-B. Tardo-Dino

## Summary of Facts and Submissions

I. This appeal is against the decision of the examining division dispatched 15 March 2007, refusing European patent application No. 00 919 241.0 on the ground that claim 1 did not satisfy the requirements of Article 123(2) EPC.

II. During the examining proceedings objections under Article 84 EPC regarding claims 1, 5 to 7, 11, 14, 15, 19 and 21 to 23 were raised in a communication dated 21 April 2004. With a letter dated 01 November 2004 in response to the communication the applicant filed amended claims 1 to 37, comments that they fulfilled the provisions of Article 123(2) EPC and comments on the objections raised in the communication. Further comments on the objections were made in a letter dated 02 November 2004.

In a further communication dated 09 June 2005 further objections under Article 84 EPC with respect to claims 1, 11 and 30 were raised. With letter of 19 December 2005 in response to this communication the applicant filed amended claims 1 to 25 and comments that the amendments fulfilled the requirements of Articles 123(2) EPC.

The applicant filed amended claims 1 to 26 with a letter dated 29 June 2006 referring to "communication by phone and email in June 2006". In this letter comments that the amendments fulfilled the requirements of Article 123(2) EPC were presented and an auxiliary request for oral proceedings was made.

The examining division issued a communication under Rule 51(4) EPC 1973 dated 07 August 2006 based on the claims filed with the letter of 29 June 2006, claims 1, 11 and 19 being reformulated by the examiner for clarity.

With letter of 10 October 2006 the applicant disagreed with the set of claims on which the communication under Rule 51(4) EPC 1973 was based and requested that the communication of 07 August 2006 be set aside and a new communication under Rule 51(4) EPC 1973 be issued. It presented comments that the amendments proposed by the examiner were incorrect and might introduce a deficiency under Article 123(2) EPC.

The examining division resumed substantive examination and issued summons to oral proceedings. In a communication accompanying the summons the examining division commented on the issue whether the amendments proposed by the examining division complied with the provisions of Article 123(2) EPC. It further stated that, since the applicant had not filed amended claims, the set of claims on file was that on which the communication under Rule 51(4) EPC 1973 was based.

With letter of 19 January 2007 the applicant filed a set of amended claims including the amendments proposed by the examining division and adding a further amendment to claim 1. This amendment was said to be intended to avoid confusion. The applicant requested that a new communication under Rule 51(4) EPC 1973 be issued. It further stated that in its opinion no oral proceedings were required and it would not be represented at the hearing. As a precautionary measure,

an auxiliary request for "a new summon [sic] to an oral proceedings" was made.

With a communication dated 13 February 2007 the applicant was informed that the date fixed for oral proceedings was maintained. The oral proceedings was held on 23 February 2007, as scheduled, in the absence of the applicant. At the end of the hearing the application was refused on the ground that the amendment of claim 1 constituted added subject-matter. It was stated in the reasons for the decision, dispatched on 15 March 2007, that the auxiliary request for a new oral proceedings was refused under Article 116(1) EPC.

III. Notice of appeal and the statement of grounds of appeal were filed and the appeal fee paid on 11 May 2007. Claims 1 to 26 of a main request and claim 1 of an auxiliary request for replacing claim 1 of the main request were filed with the notice of appeal. The claims of the main request corresponded to the claims on which the decision under appeal was based, claim 1 of the auxiliary request corresponded to claim 1 of the communication under Rule 51(4) EPC 1973 dispatched 07 August 2006 by the examining division.

The appellant stated that it had not had the opportunity to comment on the objection under Article 123(2) EPC on which the decision was based and requested that the appeal fee be reimbursed for a substantial procedural violation.

An auxiliary request for oral proceedings was made.

IV. In a communication accompanying summons to oral proceedings the board informed the appellant of its preliminary view that there had been no procedural violation in refusing the request for a further oral proceedings and that the main request did not fulfil the requirements of Article 123(2) EPC.

V. At the oral proceedings held on 12 February 2008 the appellant maintained its main request and the request for reimbursement of the appeal fee and presented claims 1 to 24 of an auxiliary request replacing the auxiliary request on file. The appellant requested that the appeal further be based on

pages 2, 5 to 13	as published
pages 1, 3, 14	received with letter of 29 June 2006
page 4	filed at the oral proceedings
figures 1 to 5	as published

VI. At the end of the hearing the chairman announced the board's decision.

VII. Claim 1 of the main request reads so follows:

"A telecommunications system for transmitting data packets using a semi-reliable retransmission protocol that utilizes selective repeat automatic repeat request, said telecommunications system comprising:

a transmitter (200) having a data link layer (60a) therein for receiving a service data unit (210) containing a plurality of said data packets, said data

link layer (60a) segmenting said service data unit (210) into at least one protocol data unit (220); a discard timer (300) within said transmitter (200) for monitoring a retransmission timeout of said service data unit (210), said discard timer (300) being initialized when said service data unit (210) is received by said data link layer (60a); and

a receiver (250) for receiving said at least one protocol data unit (220) from said transmitter (200) over an air interface and transmitting an acknowledgment message (270,285) to said transmitter (200) over said air interface after determining that said at least one protocol data unit (220) is received correctly,

said service data unit (210) being discarded by said transmitter (200) when said acknowledgment message (270) is not received for each said at least one protocol data unit (220) and said discard timer (300) expires."

Claim 1 of the auxiliary request corresponds to claim 1 of the main request except for replacing the last feature by:

" means for discarding said service data unit (210) by said transmitter (200) and said receiver (250) when said acknowledgment message (270) is not received for each said at least one protocol data unit (220) and said discard timer (300) expires."

Claim 19 of the auxiliary request reads as follows:

"A method for transmitting data packets over an air interface to a receiver (250) using a semi-reliable



retransmission protocol that utilizes selective repeat automatic repeat request, said method comprising:

receiving, by a data link layer (60a) within said transmitter (200), a service data unit (210) containing a plurality of said data packets;

segmenting the service data unit (210) containing a plurality of said data packets into at least one protocol data unit (220);

initializing a discard timer (300) within said transmitter for monitoring the transmission timeout of said service data unit (210) to said receiver (250);

transmitting said at least one protocol data unit (220) from said transmitter (200) to said receiver (250) over said air interface; and

discarding said service data unit (210) by said transmitter when an acknowledgment message (270) is not received for each said at least one protocol data unit (220) and said discard timer (300) expires."

## Reasons for the Decision

1. Article 123(2) EPC

1.1 Main request

In the telecommunication system of claim 1 as published a service data unit is discarded by a transmitter and a receiver when an acknowledgement message is not transmitted for at least one protocol data unit and a discard timer expires, whereas claim 1 of the main request only specifies that the service data unit is discarded by the transmitter when the acknowledgement

message is not received for each at least one protocol data unit and a discard timer expires.

According to the appellant's arguments deletion of the feature that the service data unit is discarded by the receiver was only a matter of clarification and did not affect the scope of the claim. Moreover, this amendment was said to be based on the passages at page 10, lines 13 to 23, page 11, lines 12 to 14, page 2, lines 20 to 21, page 9, lines 1 to 4 and lines 15 to 18, page 11, lines 3 to 5 and page 3, last paragraph, all of the application as published.

At page 10, lines 13 to 23 preferred embodiments are disclosed in which, if the discard timer elapses for a particular service data unit, this service data unit is marked as discarded and a "move receiving window" request message is sent to the data link layer of the receiver to ensure that protocol data units received by the receiver that carry that particular service data unit are discarded in the receiver as well. According to page 3, last paragraph the object of the application is to set transmission reliability for retransmission protocols. At page 9, lines 12 to 15 it is disclosed that a novel semi-reliable retransmission protocol included a discard timer within said transmitter for triggering retransmission timeout.

The appellant argued that the skilled person would understand from these passages that the gist of the claimed subject-matter was the discard timer at the transmitter and, since the disclosure on page 10 referred explicitly to preferred embodiments, the claimed system was operable without discarding the

service data unit at the receiver and that the amendment of claim 1 therefore fulfilled the requirements of Article 123(2) EPC. This argument is not convincing, as Article 123(2) EPC requires that the amendment be deducible from the disclosure of the application, rather than that the amendment be technically possible.

The appellant further argued that at page 9, lines 1 to 4 it is disclosed that in an IS-95 system, data link layer protocol data units were retransmitted at most twice, and that after the second retransmission, the receiver released the protocol data unit, whether corrupt or not, to the network layer and that page 9, lines 15 to 18 taught to implement the new semi-reliable retransmission protocol in systems as described referring to figure 2, e.g. the IS-95 system. Further, at page 2, lines 20 and 21 of the description it was indicated that different needs of transmission reliability could be observed in existing data applications. Since the IS-95 system released corrupted protocol data units to the network layer and there was a need for reduced transmission reliability, the skilled person would understand that a system in which the service data units are discarded in the transmitter only is disclosed.

This argument does not convince the board either, since the paragraph bridging pages 8 and 9, which includes the passage at page 9, lines 1 to 4, discusses the drawbacks of the known systems and makes reference to the GSM-, GPRS- and IS-95 system. It is considered as a discussion of the prior art. In the next paragraphs the novel semi-reliable retransmission protocol is

disclosed with reference to figure 3. Two embodiments are disclosed. According to the preferred embodiment, if the discard timer elapses, a "move receiving window" request message is sent to the receiver to ensure that the corresponding service data units are discarded in the receiver, see page 10, lines 16 to 21. According to an alternative embodiment, the status of valid protocol data units versus protocol data units that should be discarded at the receiver is announced by piggy-backing corresponding information onto later sent protocol data units, see page 11, lines 12 to 14. However, the skilled person would understand that in both embodiments a signal is transmitted to inform the receiver of the elapse of the discard timer within the transmitter and to ensure that the corresponding service data units are discarded in the receiver, and that the transmission of the signal is provided in a causal relationship to the elapse of the discard timer, i.e. when the discard timer expires. No basis can be found for an embodiment in which the service data units are not discarded in the receiver when the discard timer expires.

The passage at page 11, lines 3 to 5, to which the appellant referred as further support for the amendment, discloses that for transmission protocols that support concatenation of several service data units into one protocol data unit, protocol data units carrying segments of other service data units that have not timed out, shall not be discarded. The board notes that according to the last feature of claim 1 the service data unit rather than the protocol data unit is discarded when the discard timer expires and that the embodiment suggested at page 11, lines 3 to 5 does not

imply that a particular service data unit is not discarded at the receiver when the discard timer expires for this particular service data unit.

Thus, claim 1 does not fulfil the provisions of Article 123(2) EPC. As the main request includes a claim which is not allowable, the main request has to be refused.

## 1.2 Auxiliary request

Reference signs were added to the claims of the auxiliary request.

### 1.2.1 Claim 1

Except for minor reformulations in the third and fourth feature, being supported by page 10, lines 10 to 21 and page 8, lines 11 to 14 of the description as published, claim 1 of the auxiliary request differs from claim 1 as published only in reformulating a method feature, namely that the service data unit is discarded by the transmitter and the receiver when the acknowledgment message is not transmitted for at least one protocol data unit and the discard timer expires, into an apparatus feature to conform with the category of the rest of the claim. Thus, claim 1 fulfils the requirements of Article 123(2) EPC.

### 1.2.2 Claims 2 to 10

Dependent claims 2 to 10 correspond to claims 2 to 10 as published except for a minor linguistic reformulation in claim 3 and the use of "said discard

message" instead of "said 'move receiving window' request message" in claims 6 and 7 and the use of "discard acknowledgement message" instead of " 'move receiving window' acknowledgement message" in claim 7.

In the light of the two alternative embodiments given at page 10, lines 16 to 21 and page 11, lines 12 to 14 the board considers that the replacement of " 'move receiving window' request message" by a functional definition is allowable.

Since in claim 5, to which claims 6 and 7 refer, the term " 'move receiving window' request message" is used, it is a slight inconsistency that claims 6 and 7 refer back to this term using "said discard message". However, in the light of the application, the skilled person would understand that "said discard message" refers back to " 'move receiving window' request message".

Similarly, the term "discard acknowledgement message" is considered as a functional definition of " 'move receiving window' acknowledgement message", referring to page 11, lines 5 to 11 of the description as published.

Thus, claims 2 to 10 fulfil the provisions of Article 123(2) EPC.

### 1.2.3 Claims 11 to 18

Claims 11 to 18 correspond to transmitter claims 11 to 18 as published except for a minor reformulation in the second feature of claim 11 based on page 10, lines 10 to 21 of the description as published, for using "said

discard message" instead of "said 'move receiving window' request message" in claims 14 and 15 and for using "discard acknowledgement message" instead of " 'move receiving window' acknowledgement message" in claim 7.

For the same reasons as given above these amendments are considered not to introduce matter extending beyond the content of the application as filed

Thus, claims 11 to 18 fulfil the provisions of Article 123(2) EPC.

#### 1.2.4 Claim 19

Claim 19 of the auxiliary request corresponds to claim 19 as originally published except for

- a) deleting "from a transmitter" in the first line of the claim,
- b) specifying that the service data unit contains a plurality of data packets,
- c) replacing "when said service data unit is received by said data link layer" by "for monitoring the transmission timeout of said service data unit to said receiver",
- d) deleting the step of transmitting an acknowledgment message from the receiver to the transmitter over the air interface for each at least one protocol data unit that is received correctly,
- e) in the last step, replacing "transmitted for" by "received for each" and
- f) in the last step, deleting that the service data unit is discarded by the receiver.

Difference a) does not change the claim, since transmitting data packets to a receiver implies a transmitter.

Difference b) is based on page 6, line 23 to page 7, line 3.

Difference c) is based on page 10, lines 10 to 21.

Difference e) is based on page 13, lines 8 to 10.

The features deleted according to differences d) and f) relate to the receiver. Deleting these features results in claiming the method as it is performed in the transmitter, thus, claim 19 is limited to the method steps provided by the transmitter. Claim 19 is supported by the transmitter claims 10 to 18 as published and the description of the transmitter's method steps with reference to figures 2, 3 and 4.

Claim 19 therefore fulfils the provisions of Article 123(2) EPC.

#### 1.2.5 Claims 20 to 24

Claim 20 of the auxiliary request corresponds to claim 20 as published.

Claim 21 of the auxiliary request differs from claim 21 as published in a minor linguistic reformulation.

Claim 22 of the auxiliary request corresponds to claim 23 as published except for replacing " 'move receiving window' acknowledgement message" by "discard



acknowledgement message". As stated above, the term "discard acknowledgement message" is considered to be an allowable functional definition of "'move receiving window' acknowledgement message", referring to page 11, lines 5 to 11 of the description as published.

Claims 23 and 24 of the auxiliary request correspond to claims 24 and 25 as published.

Thus, claims 20 to 24 fulfil the requirements of Article 123(2) EPC.

2. Remittal

The claims of the auxiliary request correspond to the claims on which the communication under Rule 51(4) EPC 1973 was based except for some clarifying or limiting amendments which do not affect the assessment of patentability made in the examining procedure. Thus, the case is remitted to the department of first instance to grant a patent.

3. Procedural violation

The appellant argued that the amendments of claim 1 filed with letter of 19 January 2007 were made to avoid oral proceedings. In the appellant's (then applicant's) view the amendment clarified claim 1 and was clearly allowable. The appellant therefore did not attend oral proceedings. As it made an auxiliary request for "a new summon to oral proceedings" it was surprised by the decision. Moreover, as the decision under appeal was based on the ground that the application did not comply with the provisions of Article 123(2) EPC, whereas only

compliance with Article 84 EPC had been discussed in the communications till then, it had not had an opportunity to present its comments on this ground, violating Article 113(1) EPC.

The board notes that the submissions of the appellant are based on a misinterpretation of the right to be heard, in particular on the assumption that the department of first instance had no procedural choice and was bound to the procedural step proposed by the applicant.

According to Article 96 EPC 1973 the department of first instance shall invite the applicant as often as necessary to comment on its observations. However, this article and Rule 51 EPC 1973 leave the examining division discretion to assess when such an opportunity is necessary and when it is more appropriate to put an end to the written phase and hold oral proceedings, see e.g. T 1578/05.

The simple fact that the applicant requested a new communication under Rule 51(4) EPC 1973 to be the next step instead of the scheduled oral proceedings was not binding for the examining division as long as it gave the applicant the possibility to discuss the outstanding issues, bearing in mind that, contrary to the assertion of the appellant, the right to present comments enshrined in Article 113(1) EPC need not necessarily be exercised in writing but may be satisfied by way of oral proceedings.

This was the case. The board notes that the appellant had been duly summoned to oral proceedings and had been

informed, after its statement that it would not attend the hearing, that oral proceedings would be held as scheduled. The particular amendment of claim 1 which led to refusal of the application was filed for the first time in response to the summons to oral proceedings.

If the applicant had been represented at the hearing, it would have been able to discuss and argue its case. It was the applicant's choice not to be represented at the oral proceedings. Every amendment has to meet the requirements of Article 123(2) EPC. This issue was addressed in the summons to oral proceedings. Thus, the applicant had to expect that this issue would be discussed with respect to the claims on file at the hearing. The scheduled hearing gave the appellant the opportunity to present its comments, in accordance with Article 113(1) EPC.

Moreover, the applicant had to expect that a decision could be made based on an objection under Article 123(2) EPC, as according to Rule 68 (1) EPC 1973, where oral proceedings are held before the EPO, the decision may be given orally.

In the response to the summons the appellant made a conditional request for a "new summon [sic] to an oral proceedings", which is interpreted as a request for another oral proceedings. This request was made before the first oral proceedings took place. The examining division informed the applicant about two weeks before the scheduled date that the fixed date for oral proceedings was maintained.

The refusal by the examining division of new oral proceedings is part of the same course of action taken by the examining division, in exercising its discretion according to Article 96 EPC 1973.

The applicant did not give any reasons for not attending the hearing and requesting a new summons for oral proceedings. The appellant stated that it was unfair that once a party had made a request for oral proceedings, the party was bound to this request in the sense, that, if it was summoned to oral proceedings, it did not have the right to cancel the oral proceedings. However, the board notes that, in fact, the applicant's behavior resulted in ignoring the procedural steps chosen by the department of the first instance, with the consequence that the applicant did not make use of the opportunity given to it to comment on the outstanding objections and to attempt to overcome them.

The outcome of the present decision shows that the department of first instance exercised its discretion in a proper way and did not commit any abuse.

The board, under these circumstances, does not see any procedural violation in refusing the request for a further oral proceedings. Thus, the request for reimbursement of the appeal fee must be refused.

4. General remark

In several documents in the file of the examining proceedings, e.g. applicant's letters of 06 June 2006 and 10 October 2006 and communication of 07 December 2006 accompanying summons to oral

proceedings, reference was made to informal contacts between the applicant and the examiner via telephone or email. The file does not include minutes of these contacts. The board notes that the file should contain minutes of any contacts concerning relevant issues. Further, the board refers to Rule 2 EPC (Rule 24(1) and 36(5) EPC 1973) concerning the filing of documents. These provisions ensure that the file reflects the complete proceedings. It may be important, e.g. in case of alleged procedural violation, that the content of the file is reliable.

**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 with the order to grant a patent on the basis of the following documents:

claims 1 to 24 of the new auxiliary request filed during the oral proceedings

Description: pages 2, 5 to 13 as published  
                  1, 3, 14 as received with letter of 29 June 2006  
                  4 filed during the oral proceedings

Sheets 1 to 5 of the drawings

3. The request for reimbursement of the appeal fee is refused.

The Registrar:

The Chairman:

K. Götz

D. H. Rees