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**Datasheet for the decision
of 20 June 2012**

Case Number: T 0160/09 - 3.5.06

Application Number: 03711885.8

Publication Number: 1485793

IPC: G06F 9/40

Language of the proceedings: EN

Title of invention:

Layered architecture for mobile terminals

Applicant:

Telefonaktiebolaget LM Ericsson (publ)

Headword:

Layered Architecture/ERICSSON

Relevant legal provisions (1973):

EPC Art. 10(2), 18, 56, 84, 111(2), 113(1), 125

EPC R. 9(1), 12(1), 67

Relevant legal provisions:

EPC Art. 112a(2), 125

EPC R. 104, 106

RPBA Art. 11, 12(2), 13(1)

EPC Guidelines for Examination, Version June 2005, C-VI, 1.2
and 1.3

Consolidated versions of the Treaty on European Union and the
Treaty on the Functioning of the European Union, as amended
after the Treaty of Lisbon

Keyword:

"remittal in case of an adverse decision - no"
"additional argument in decision - substantial procedural violation (no)"
"change in composition of examining division before oral proceedings - procedural violation (no)"
"support by the description - main and 1st-15th auxiliary requests (no)"
"technical problem solved by the invention - 16th auxiliary request (no)"
"inventive step - 16th auxiliary request (no)"
"reimbursement of the appeal fee (no)"

Decisions cited:

T 0005/81, J 0007/83, T 0390/86, J 0032/95, T 1505/06,
R 0016/09

Catchword:

Request for remittal in case of an adverse decision, see reasons 1-2. Alleged substantial procedural violations, see reasons 3-14.



Case Number: T 0160/09 - 3.5.06

D E C I S I O N
of the Technical Board of Appeal 3.5.06
of 20 June 2012

Appellant:
(Applicant)

Telefonaktiebolaget LM Ericsson (publ)
S-164 83 Stockholm (SE)

Representative:

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Decision under appeal:

Decision of the Examining Division of the
European Patent Office posted 18 July 2008
refusing European patent application
No. 03711885.8 pursuant to Article 97(2) EPC.

Composition of the Board:

Chairman: D. H. Rees
Members: M. Müller
W. Sekretaruk

Summary of Facts and Submissions

- I. The appeal lies against the decision of the examining division, with written reasons dated 18 July 2008, to refuse the European patent application no. 03711885.8 for lack of an inventive step over

D1: US 6 137 802 A

D2: Batory D. *et al.*, "The Design and Implementation of Hierarchical Software Systems with Reusable Components", ACM Transactions of Software Engineering and Methodology, Vol. 1, No. 4, Oct. 1992, pp. 355-398

The decision was delivered during oral proceedings before an examining division in a different composition than the one having signed the summons to oral proceedings. More specifically, instead of the second examiner who had signed the summons another examiner was present during oral proceedings and signed both the minutes and the decision.

- II. An appeal was lodged on 18 September 2008 and the appeal fee was paid on the same day. A statement of grounds of appeal was filed on 12 November 2008. It was requested that the decision be set aside and a patent be granted based on the claims according to the main request filed on 28 April 2008, the claims according to the auxiliary request filed on 27 May 2008 and, for both requests, pages 1, 3-13 of the description as published and page 2, 2a as filed on 21 August 2006. The appellant argued that its right to be heard was violated twice because the decision under appeal is based on grounds on which it had no opportunity to comment: In particular, the

decision under appeal relied on the fact that the claims contained a mixture of technical and non-technical features although the appellant had reasons to believe that this no longer constituted an objection, and it referred to figure 4 of D2 which had not been mentioned in the procedure before. It was also argued that the oral proceedings had taken place before an improperly constituted examining division. The appellant expressed the opinion that each of these reasons justified reimbursement of the appeal fee.

III. With summons to oral proceedings, the board introduced a new document in order to illustrate common knowledge in the art, namely

D4: Garlan *et al.*, "An Introduction to Software Architecture", Technical Report CMU-CS-94-166, School of Computer Science, Carnegie Mellon University, 1994,

and gave its preliminary opinion according to which the claimed invention according to both requests lacked clarity, Article 84 EPC 1973, that it was questionable whether the application established a technical problem solved by the claimed invention, and that, even on the assumption that it did, the invention lacked an inventive step over D1, D2 and common knowledge in the art as disclosed in D4, Article 56 EPC 1973. The board further indicated its preliminary opinion that no substantial procedural violation had occurred which would justify the reimbursement of the appeal fee, Rule 67 EPC 1973.

In response to the summons, the appellant filed amended claims according to a main and 15 auxiliary requests and maintained its request for reimbursement of the appeal

fee. In addition, the appellant requested remittal of the application to the first instance if the board intended to reach a decision adverse for the applicant.

- IV. The oral proceedings can be summarized as follows.
- (i) The appellant's representative indicated that he had not received a copy of D4 with the summons to oral proceedings but confirmed that he had been able to download one from the Internet directly.
 - (ii) The appellant confirmed its request for remittal, including on the basis of Article 11 RPBA, and added that it should preferably be to an examining division in an entirely different composition.
 - (iii) In response to the summons to oral proceedings the appellant expressed agreement with the board that the issue of technical and non-technical features was not decisive for the decision and explained that hence "the applicant" would "not intend to insist on this point" (letter of 14 May 2012, point 5.1). During oral proceedings the appellant confirmed this to mean that a violation of the right to be heard in this respect was no longer claimed.
 - (iv) After discussion with the appellant the board indicated that it could not see the alleged substantial violation of the right to be heard to have occurred and therefore tended not to remit the case to the first instance. In response, the appellant submitted the following written objection under Rule 106 EPC:

"An objection under Rule 106 EPC is herewith raised, specifically referring to Art. 112a (1) (c) and (d) EPC [sic]. If the Board decides not to remit the case to the first instance, by deciding that no substantial procedural violation occurred as a result of the use of D2, Fig. 4 in the decision of the Examining Division (items 4.6, 4.7, 5.2), then the Board would have exceeded its discretion under Rule 11 RPBA [sic] by assessing subjectively rather than objectively (*i.e.*, based on the structure of the Examining Division's decision) whether a deficiency affected the entire proceedings (with reference to decision J 7/83)."

This objection was discussed with the appellant and then dismissed by the board.

- (v) In support of its allegation of an improperly constituted examining division the appellant made reference to the Guidelines for Examination, version of June 2005, sections C-VI, 1.2 and 1.3, and to excerpts from the Consolidated versions of the Treaty on European Union and the Treaty on the Functioning of the European Union, as amended after the Treaty of Lisbon, and apparently cited after a publication by the European Union in March 2010 (henceforth "the European Treaties") which the appellant retrieved from the Internet during a break of the oral proceedings. The European Treaties would, so the argument, establish a generally accepted "principle of transparency" which the EPO under Article 125 EPC would have had to, but did not, take into account. When it appeared from the discussion that the board did not follow its argument, the appellant requested that the appeal procedure be continued in writing so as to give the appellant an opportunity to provide further evidence.

- (vi) After the requests filed with the grounds of appeal had been discussed with the board, the appellant filed an additional new 16th request which it argued the board should admit as a response to the preceding discussion.
- (vii) When it appeared from the discussion during oral proceedings that the appellant could not, to the board's satisfaction, explain what technical problem was solved by the invention as claimed, it was requested that the appeal procedure be continued in writing to give the appellant the opportunity to elaborate on this question further.

V. Claim 1 of the main request reads as follows.

"A mobile terminal (16) for a wireless telecommunications system, said mobile terminal including a hardware component (24) and a software services component (22, 102), said software services component having a software architecture comprising:

software organized in a plurality of software layers (104, 112, 114, 116, 118) arranged in order from software layers providing higher level services to software layers providing lower level services;

at least one software module (122, 124, 126) in each software layer; and

interface means for permitting communication among software modules in said plurality of software layers pursuant to a set of defined dependency rules,

wherein said interface means comprises a Software Back Plane (130, 132, 134, 136, 138) for each software layer, each Software Back Plane having interfaces with said at least one module in its respective software layer,

wherein said software is further organized in at least one vertical functional software stack (30, 32, 34, 36, 106, 108),

characterized in that

said interface means is adapted to permit a software module in a software layer to invoke

functionality in an interface in the Software Back Plane of its own layer or in Software Back Plane of software layers below its own Software Back Plane,

in an interface in the Software Back Plane of its own layer in the same and in a different software functional stack, and

never functionality in an interface in a Software Back Plane of a software layer above its own software layer,

while communication upward through the layers is configured to be handled by events,

when said software service component is run in said mobile terminal (16)."

- VI. Claim 1 of the 1st auxiliary request differs from that of the main request in that the penultimate paragraph now reads as follows:

"while communication upward through the layers is configured to be handled by events, and the software modules are configured to be capable of having a subscription to receive an event;"

- VII. Claim 1 according to the 2nd and 3rd auxiliary requests differ from those of the main and 1st auxiliary requests, respectively, in that the second paragraph now reads as follows:

"software organized in a plurality of software layers (104, 112, 114, 116, 118) arranged in order from software layers providing higher level services to software layers providing lower level services, wherein the software layers providing lower level services are closer to the physical medium and the software layers providing higher level services are farther away from the physical medium;"

- VIII. Claim 1 according to the 4th to 7th auxiliary requests differ from those of the main to 3rd auxiliary requests, respectively, in that the 5th paragraph now reads as follows:

"wherein said interface means comprises for each software layer, a group (130, 132, 134, 136, 138) of implementations of interfaces for interfacing with said at least one module in its respective software layer, a group of implementations of interfaces being hereinafter referred to as "Software Back Plane", "

- IX. Claim 1 according to the 8th to 15th auxiliary requests differ from those of the main to 7th auxiliary requests,

respectively, in that at the end of the penultimate paragraph the following phrase is added:

"and there are some communications downward in the software architecture which are configured to be handled by explicit invocations,"

- X. Claim 1 of the 16th auxiliary request differs from that of the 12th auxiliary request in that any reference to the dependency rules and their definition is deleted and now reads as follows:

"A mobile terminal (16) for a wireless telecommunications system, said mobile terminal including a hardware component (24) and a software services component (22, 102), said software services component having a software architecture comprising:

software organized in a plurality of software layers (104, 112, 114, 116, 118) arranged in order from software layers providing higher level services to software layers providing lower level services;

at least one software module (122, 124, 126) in each software layer; and

interface means for permitting communication among software modules in said plurality of software layers,

wherein said interface means comprises, for each software layer, a group (130, 132, 134, 136, 138) of implementations of interfaces for interfacing with said at least one module in its respective software layer, a

group of implementations of interfaces being hereinafter referred to as "Software Back Plane",

wherein said software is further organized in at least one vertical functional software stack (30, 32, 34, 36, 106, 108),

characterized in that

communication upward through the layers is configured to be handled by events, and there are some communications downward in the software architecture which are configured to be handled by explicit invocations,

when said software service component is run in said mobile terminal (16)."

- XI. All requests furthermore have an independent method claim 8 the wording of which corresponds mostly to that of claim 1.

- XII. At the end of the oral proceedings the chairman announced the decision of the board.

Reasons for the Decision

Procedural Matters

Remittal in case of an adverse decision

1. If the board were to examine the case substantially and come to a negative conclusion, it would make no sense to then remit the case to the examining division for further prosecution. The reasons for the decision of the board would have to be given, and the negative conclusions would therefore be part of the *ratio decidendi* of the decision. The examining division would therefore be bound by those conclusions (Article 111(2) EPC 1973). Thus the only purpose of such a remittal would be to give the appellant a further opportunity to amend its case to rely on new facts, such as new, more restricted, claims. But any such facts could and should be submitted to the board itself, preferably with the grounds of appeal (Articles 12(2) and 13(1) RPBA). The appellant is effectively asking for a blank cheque to further modify its case, together with a further opportunity to appeal. Accession to such a request would require truly exceptional circumstances, of a nature which the board cannot presently envisage. At any rate, no such circumstances have been claimed here. Hence, the appellant's request to remit the case if the board intends to come to an adverse decision for the appellant cannot be granted.

2. According to Article 11 RBPA the board shall remit the case to the department of first instance if fundamental deficiencies are apparent in the first instance proceedings, unless special reasons present themselves for

doing otherwise. If no such reasons exist, the board will allow the appeal because of the fundamental deficiency alone and without assessing the substantive merits of the appeal, and will remit the case in order for this error to be corrected in further prosecution. So the board will first examine whether there is a fundamental deficiency in the first instance procedure which justifies an immediate remittal.

The alleged substantial procedural violations

Right to be heard

3. The decision makes repeated reference to figure 4 of D2 (esp. in points 4.6, 4.7 and 5.2) which had not been mentioned in the written procedure nor, as it appears from the minutes, discussed during oral proceedings. Thus it would appear that the appellant did not have an opportunity to comment on this aspect of the decision. Contrary to the appellant's position, however, the board is of the opinion that the reference to figure 4 of D2 was not decisive for the decision.

4. As regards the main request, the decision comes to its conclusion as to lack of inventive step of claim 1 over D1 and D2 without referring to figure 4 (see point 2-2.9). Figure 4 is mentioned later on with respect to claims 2 and 3 (point 3.1) and in a subsequent section dealing with the applicant's arguments (points 4 *et seq.*) to show why they did not, according the examining division, affect this conclusion. As regards the auxiliary request, the examining division argue in the decision (point 5.1) that the "additional feature does not render the claimed subject matter inventive" because to

use event subscription is "the most common way of implementing an event-based communication" and "well within the reach of the skilled person". The examining division further argue (point 5.2) that figure 4 of D2 provides an example of event subscription, and conclude (point 5.3) that "[t]herefore, the subject-matter of independent claims of the auxiliary request does not involve an inventive step".

5. The appellant pointed out that neither section 4 nor point 5.2 of the decision are labelled as *obiter dicta* nor placed sufficiently separate from the reasons (e.g. at the very end) to warrant the conclusion that they were meant as *obiter dicta*. The appellant was also of the opinion that the conclusion in point 5.3 relies on the arguments in both points 5.1 and 5.2.

5.1 As a consequence, the appellant argued that these sections belong to the *ratio decidendi* of the decision under appeal. The appellant also made reference to T 5/81 (headnote and reasons 7; OJ 1982, 249) which states that "an alleged violation affecting a part of the decision other than its *ratio decidendi* cannot be a substantial violation" and submitted that, by implication, all procedural violations which do affect the *ratio decidendi* must be considered as substantial procedural violations.

5.2 The appellant further argued that the board had to assess whether a substantial procedural violation had occurred on a purely objective basis and that therefore there was no room for any discretion on the board's side based on subjective judgment. In case of doubt the board had, so the argument, no choice according to T

1505/06 (reasons 3.1; not published in the OJ) but to remit the case. It also argued that an objective assessment must be based on the structure of the decision (see point IV (iv) above).

6. The board agrees that a "substantial procedural violation" is an objective deficiency affecting the entire proceedings (J 7/83, reasons 12; OJ 1984, 211) which is to be determined on an objective basis (see J 32/95, reasons 4.1; OJ 1999, 713). However, the board's assessment is indeed based on the pertinent objective facts, in particular the decision under appeal.

6.1 In T 1505/06 the opposition division had refused the proprietor's request to postpone the oral proceedings but had failed to give their pertinent reasons in the minutes or in the final decision. Absent such reasons the board had found itself incapable of deciding whether opposition division had exercised its discretion properly or not and whether a substantial procedural violation had occurred, and therefore saw no choice but to remit the case to the opposition division for further prosecution (see esp. reasons 3.1). In the present case, the situation is significantly different: It is undisputed that the decision under appeal contains reasons for the relevant conclusion as to inventive step and thus there is a factual basis to decide whether or not the alleged violation of the right to be heard occurred or not.

6.2 The board agrees with the appellant that the structure of the decision is an important aspect for analysing the reasons of a decision, but disagrees that it is the only one that may be taken into account for this analy-

sis to be objective. Rather, the content of the individual arguments may and normally must be assessed, too.

6.3 Also, the requirement that a decision be based on objective facts does not exclude that the board has to assess and judge the facts at issue nor that consequently the decision may also contain subjective elements.

7. Having said that, the board interprets the reasons in the decision as follows:

7.1 In point 2.6 of the decision it is argued that D2 discloses that software modules are permitted to invoke functionality in their own layer or in layers below, whereas communication upwards through the layers is configured to be handled by events. With respect to events, reference is made to the following disclosure of D2 (p. 372, sec. 3.1, l. 11-14): "Upcalls arise in systems that receive asynchronous inputs through lower level components and that usher the processing of these inputs up through the system. Upcalls are common in networks and operating systems, and are initiated via hardware interrupts."

7.2 Point 4.4 of the decision repeats the applicant's argument according to which "D2 does not disclose the 'asymmetric' operation between layers as claimed". This argument is dismissed in point 4.5 with reference to the cited section of section 3.1. In point 4.6, reference to figure 4 along with the argument that "the receipt of a data packet" would represent a hardware interrupt "as introduced in section 3.1, line 14" the "processing" of which "implies its propagation upwards

- through all the layers" which would show "the existence of event-based processing in all layers of the system".
- 7.3 In the board's judgment, the examining division made reference to figure 4 of D2 as a specific example of the general statement in the cited passage of section 3.1 with respect to the existence and handling of hardware interrupts. Therefore, this reference merely illustrates an argument previously made by the examining division and discussed with the applicant and does not introduce a new argument.
- 7.4 The fact that, as the appellant pointed out during oral proceedings, the board of appeal had expressed doubt in the summons to oral proceedings as to whether section 3.1 of D2 actually discloses exclusively event-based upward communication and therefore disagreement with the examining division's argument in substance, is irrelevant for the issue at stake: Whether the appellant's right to be heard was violated or not is a procedural question quite independent of the substantive question of whether the board agrees with the reasoning of the examining division or their conclusion.
- 7.5 Similarly, in the board's opinion, the examining division referred to figure 4 in point 5.2 in order to illustrate the argument made under point 5.1, whereas the conclusion as to lack of inventive step in point 5.3 does not depend on this example but is supported by the allegation of common knowledge under point 5.1 alone.
8. The board thus comes to the conclusion that figure 4 of D2 was not decisive for the examining division to

arrive at their finding as to lack of an inventive step of the independent claims of both requests and thus is not a substantial procedural violation which would make an immediate remittal equitable under Article 11 RPBA.

Composition and constitution of the examining division

9. The appellant argued that the oral proceedings did not take place before the legally appointed examining division because the second examiner present at the oral proceedings was not the same as the examiner having signed the summons, and because there is no evidence that the president of the EPO directly or by delegation had ordered or approved this change or according to what procedure.

9.1 The appellant argued that absent such evidence it must be assumed that the new second examiner had appointed himself. The appellant argued that according to T 390/86 (reasons 7; OJ 1989, 30) such a "self-appointment" is illegal because members of the examining division are personally appointed under Article 18 EPC 1973 on a particular file. The appellant also suggested that "self-appointment" would offend against the appellant's right to defend their case before an examining division as "fairly diverse as possible". The appellant did not however provide any evidence to corroborate the suspicion of self-appointment. According to the minutes (see points 2.2 and 2.3) the appellant had only asked why the second examiner was changed but when the examining division referred to "organizational reasons" the appellant did not request further information to establish that this change was approved or by whom.

- 9.2 The appellant did not question that the new second examiner might not be technically qualified as required by Article 18(2) EPC 1973 or not be competent to deal with the pertinent parts of the international patent classification (cf. Rule 9(1) EPC 1973). The board also does not consider that the requirement of Article 18(1) EPC 1973 that the examining divisions shall be responsible for the examination of European patent applications prohibits changes in their composition *per se*.
- 9.3 The appellant did not, in fact, raise any objection against the individual new member, did not claim that the new examining division had shown any lack of "fair diversity" to the appellant's disadvantage, and generally did not argue that the appellant was negatively affected by the replacement.
10. In T 390/86, the appealed decision was set aside because the written decision had not been signed by those members of the opposition division who had delivered the decision during oral proceedings. In the reasons (points 7 and 8) it is explained that the decision must be delivered by the examiners who are "appointed on a personal basis" to constitute a particular opposition division in order to decide the case and that wrong signatures on the written decision put into doubt whether the written decision reflected the views of the same examiners who had decided the case in oral proceedings. As the board reads it, T 390/86 does not prohibit that the composition of an opposition division be changed at all, nor does it require that the European Patent Office follow a particular procedure to do this. In the present case there is no doubt that the written decision was signed by those examiners who had taken

part in the oral proceedings. For this reason alone T 390/86 does not apply to the present case.

11. The appointment and possible replacement of members of the examining (and opposition) divisions are amongst the "necessary steps" which by Article 10(2)(a) EPC 1973 the president is empowered to take to ensure the functioning of the European patent office. The president may delegate these powers under Article 10(2)(i) EPC 1973. In this respect, Rule 12(1) EPC 1973 provides that examining divisions are grouped together administratively so as to form directorates. In the board's view this implies that the president delegates decisions about administrative matters regarding the examining divisions, including the appointment and replacement of members, to the directorates.

11.1 It is true that there is no evidence on file that the president has, directly or by delegation, approved the change in the composition of the examining division. However, the EPC does not contain an explicit requirement that such evidence be made available. The board points out that neither is such evidence available for the initial allocation of the examining division. In fact, to the best knowledge of the board such information is generally not publicly available.

11.2 The sections of Guidelines for Examination as referred to by the appellant (Version June 2005, sections C-VI, 1.2 and 1.3) explain that a dossier is normally allocated to an examining division responsible for the examination of applications in the technical field in which the particular application has been classified by the search division and under which conditions exceptions

to this principle are made, that one member of the examining division will, as a rule, be entrusted to carry out all the work up to the point of a decision to grant a patent or refuse the application, and that this primary examiner is normally the examiner who drafted the search report. The appellant considers that these sections make at least plausible that the initial appointment of an examining division to an application is performed according to a well-defined procedure.

11.3 The board however cannot see that these sections of the Guidelines relate to the question of whether the appointment takes place according to delegation by the president or according to what procedure. The board also disagrees with the appellant that the Guidelines relate to the initial appointment of an application as opposed to a change in the examining division: They do not mention initial allocation explicitly, and there is no reason to assume that changes in the composition of the examining division should not be made according to the same criteria. For this reason, the board considers the cited sections of the Guidelines to be irrelevant for the appellant's argument.

12. The appellant also argues that there is a generally accepted principle of transparency in procedural law in the contracting states of the EPC which the EPO should take into account under Article 125 EPC 1973. This transparency principle would require that the procedure according to which the composition of the examining division is changed be made public.

12.1 In support of this allegation, the appellant refers to the European Treaties and therein specifically to:

- Article 1 in section "Common Provisions" stating *inter alia* that "[t]his treaty marks a new stage in the process of creating an ever closer union among the peoples of Europe, in which decisions are taken as openly as possible and as closely as possible to the citizen",
- Article 10(3) in section "Provisions on Democratic Principles" stating *inter alia* that "[d]ecisions shall be taken as openly and as closely as possible to the citizen", and to
- Article 15(1) in section "Provisions Having General Application" stating that "[i]n order to promote good governance and ensure the participation of civil society, the Union's institutions, bodies, offices and agencies shall conduct their work as openly as possible".

12.2 Firstly, the board notes that the objective for open decision making in Articles 1 and 10(3) explicitly refers to "the Union", *i.e.* to the European Union as an organization separate from its member states. The board thus rejects the idea that a general principle accepted within the *member states* can be derived from the cited passages of the EU treaties.

12.3 Secondly, the board is not of the opinion that the "democratic principle" according to which decisions shall be taken "as openly as possible" can be derived from the cited passages of the EU treaties as a point of procedural law as opposed to a non-enforceable commitment of the member states.

- 12.4 Thirdly, the board considers that the vague reference to decisions which should be taken "as openly as possible" does not suffice to conclude that it would imply, as alleged by the appellant, the particular requirement to publish the appointment procedure of examiners. The appellant also did not claim that the procedures according to which tasks are allocated to administrative employees are conventionally published in member states of the European Union, nor was anecdotal evidence provided that some of them are. The board has no reason to assume that this is generally the case.
- 12.5 The board therefore concludes that the appellant has failed to establish a transparency principle which would, according to Article 125 EPC 1973, require the EPO to publish the appointment procedure of examiners. The board also finds that the appellant has not established that the replacement of the second examiner in the present case infringed on its right to be heard or constituted a fundamental procedural defect for other reasons.
13. In summary, the board comes to the conclusion that no substantial procedural violation occurred which would on its own justify that the decision be set aside and the case be remitted to the first instance according to Article 11 RPBA. The request that such remittal should preferably be to an examining division in a different composition is thus moot.

Objection under Rule 106

14. With respect to the alleged substantial procedural violation due to the reference in the decision to figure 4

of D2, the appellant raised an objection pursuant to Rule 106 EPC with reference to Article 112a(1) (c) and (d) EPC (point IV (iv) above), arguing that the board was about to exceed its discretion under Rule 11 RPBA by not assessing objectively whether a fundamental deficiency occurred which affected the entire proceedings.

14.1 The board takes it that the appellant intended to refer to Article 112a(2) EPC instead of Article 112a(1) EPC and to Article 11 RBPA instead of Rule 11 RPBA.

14.2 Article 112a(2)(c) and (d) EPC stipulate that a petition for review may be filed on the grounds that (c) a fundamental violation of Article 113 EPC 1973 occurred or that (d) any other fundamental procedural defect defined in the Implementing Regulations occurred in the appeal proceedings. The pertinent regulation according to Rule 104 EPC states that a procedural defect according to Article 112a(2)(d) EPC has occurred if the board of appeal has failed to arrange oral proceedings requested by the appellant or decided on an appeal without deciding on a request relevant to that decision.

14.3 It was decided by the enlarged board of appeal (see R 16/09, reasons 2.3.5) that the list according to Rule 104 EPC is exhaustive so that defects not on the list cannot form basis for a petition under review with regard to Article 112a(2)(d) EPC. Since the appellant did not claim either of the procedural defects according to Rule 104 EPC to have occurred, the board cannot see that any defect according to Article 112a(2)(d) EPC has occurred during appeal.

- 14.4 It is clear that petitions for review under Article 112a(2)(c) EPC cannot be directly based on fundamental procedural defects that may have occurred in the first instance proceedings but must be such as to affect appeal proceedings themselves.
- 14.5 The appellant alleges that such a fundamental defect occurred in the appeal proceedings when the board of appeal exercised its discretion wrongly in judging whether a substantial procedural violation occurred before the first instance.
- 14.6 As argued above the board disagrees with the allegation in substance. But even an incorrect exercise of discretion by the board would not *per se* have affected the appellant's right to be heard under Article 113(1) EPC 1973. Since, moreover, the reasons for the board's conclusion were extensively discussed with the appellant, the appellant had sufficient opportunity to comment on the board's reasons as required by Article 113(1) EPC 1973.
- 14.7 Therefore, the board dismisses the objection under Rule 106 EPC.

Substantive Matters

Main and 1st-15th auxiliary requests

15. Claim 1 of the main and 1st-15th requests specify a communication "interface means" which is "adapted to permit" software to communicate according to what the description calls "dependency rules" (see p. 9, lines 1-13 and fig. 4): These rules define that a

software module in some layer may invoke functionality of other software modules depending on which layers and functional stacks they belong to. Specifically, it is claimed that a software module in one layer may call "functionality in ... its own layer or in ... layers below" but "never functionality in ... a layer above".

- 15.1 In the board's judgment the skilled person would read this claim language to mean that the communication interface provides some active enforcement mechanism according to which invocations in conflict with the dependency rules would be automatically detected and prevented.
- 15.2 However, the description does not support this reading. The description discloses (see e.g. p. 8, lines 30-31) that the software modules "are permitted to communicate" according to the dependency rules but does not disclose any specific means which would enable the interface means to enforce these.
- 15.3 In the board's judgment the skilled person would read the dependency rules as disclosed in the description as defining programming guidelines which programmers should adhere so as to produce software maintaining a certain communication regime. During oral proceedings, the appellant confirmed this interpretation.
- 15.4 As a consequence, claim 1 according to the main and 1st-15th auxiliary requests is not supported by the description and therefore does not conform with Article 84 EPC 1973.

16th auxiliary request

16. The independent claims of the 16th auxiliary request is based on the 12th auxiliary request as filed in response to the summons to oral proceedings from which all references to dependency rules or their role in the interface means were deleted. The board accepts that this amendment is a non-complex reaction to the preceding discussion and the board's interpretation of the dependency rules as programming guidelines and therefore exercises its discretion to admit this new request, Article 13(1) RPBA.
17. Due to the deletion, the lack of support objection against the interface means being "adapted to permit" only certain communication has become moot. Beyond that, the board is satisfied that the independent claims are clear, Article 84 EPC 1973. In particular, the board agrees that the skilled person has a clear - if broad - understanding of what higher and lower level services in a layered software architecture are, and is satisfied that the claims now specify clearly that the term "Software Back Plane" is merely a convenient reference to the totality of interfaces per software layer rather than a separate structural entity of the software in the mobile terminal.

Technical effect and Inventive Step

18. Claim 1 relates to a mobile telecommunication device and claim 8 to a method of controlling a mobile terminal so that according to establish jurisprudence of the boards of appeal their subject matter is technical and thus an invention in the sense of Article 52(1) EPC.

19. It is common ground that D1 is a suitable starting point for assessing inventive step. It is undisputed that D1 discloses a mobile terminal for a wireless telecommunication system - and the corresponding method of controlling it - having a software architecture organized in layers and in functional stacks (see esp. D1, fig. 2), as defined in the preamble of claims 1 and 8.

20. D1 does not disclose whether software layers communicate with each other via explicit or implicit invocation. Therefore the board agrees with the appellant that the independent claims differ from D1 in the features of their respective characterizing portions, according to which "communication upward through the layers is configured to be handled by events, and there are" at least "some communications downward the software architecture which are configured to be handled by explicit invocation".

21. Even though claims 1 and 8 specify that the software layers are "arranged in order" according to whether they provide higher or lower services, the claims leave open which functionality the software layers specifically implement. Therefore the independent claims cannot, in the board's judgment, be said to solve any specific problem in telecommunication vis-à-vis D1.

22. The board concedes that the use of explicit invocation as opposed to indirect invocation may, in principle, have technical implications for a specific technical system, for example in terms of system responsiveness. The board also notes however, that the advantages and disadvantages of both styles of invocation were in principle known to the skilled person in the art before

the priority date of the present application (see D4, secs. 3.3 and 3.4). This consideration was not challenged by the appellant.

23. It must therefore be assessed whether any technical effect, and which one, can be ascribed to a layered system which as a whole implements the claimed communication regime, namely using exclusively event-based communication "upward through the layers" while having at least one explicit invocation "downward".
 - 23.1 That such a system may be more easily visualized and understood, as the description alleges (see p. 2, penult. par.), does not in the board's judgment constitute a technical effect.
 - 23.2 The appellant argues (see grounds of appeal, p. 4, penult. par.) that this communication regime "improves flexibility, ease of reconfiguration, and reliability". The board does not accept that this is generally the case: For instance, D4 discloses as disadvantages of events that no assumptions may be made about the order of processing, or even about "what processing will occur" at all (see D4, p. 10, 3rd par.). While this does not mean, as the appellant suggests (cf. reply to summons, p. 11, 6th par.), that the board "see[s] an event-based, implicit invocation as having a predominantly negative impact on reliability due to the complicated testing", the board does consider that event-based communication as claimed does not always or predominantly have a positive impact on reliability either and that, hence, increased reliability cannot be attributed the claimed communication regime in general.

23.3 For the same reason, the board doubts that the claimed invention in general "reduces design, testing and preparation-for-operation (build) times while enabling the replacement of some layers without affecting the reliability of the other layers" and "provides more flexibility when there is a need for updating the software" (cf. reply to summons, p. 10, point 3.2; see also description, p. 2, lines 1-14, and p. 10, lines 2-4). Under these circumstances it is only secondary that the board is not convinced that reduced design, testing or build times or increased "flexibility" in the programming process are in general technical effects at all.

23.4 The appellant argues that event-based communication has the advantage over direct invocation that fewer addresses have to be resolved during linking. To the extent that this actually may be the case, the board considers this to constitute an at best trivial speedup of the overall build time which must, moreover, be balanced against the need for the programmer without support by the linker to make sure that all necessary events are actually served. The board also notes that the description does not disclose this alleged link-time advantage.

23.5 The description does not disclose specific circumstances in which the alleged advantages for the claimed communication regime can reliably be expected, nor could the appellant during oral proceedings explain such circumstances to the satisfaction of the board.

23.6 Therefore, the board concludes that the description fails to establish, for the skilled addressee, that the claimed communication regime solves a technical problem

with respect to D1, and hence further concludes that the claimed subject-matter lacks an inventive step over D1, Article 56 EPC 1973.

Continuation in writing

24. The appellant requests that the appeal proceedings be continued in writing so that it could
- a) provide further evidence that "transparency" is a generally accepted principle of procedural law which was violated by the lack of information as to who authorized the change of the examining division and according to what procedure, and
 - b) elaborate further on the technical problem solved by the claimed invention.
- 24.1 The board notes that both the allegedly improper composition of the examining division and the question of the technical problem solved by the invention had been addressed in the summons to oral proceedings (points 5-5.4 and 13-13.4) and were extensively discussed during oral proceedings.
- 24.2 The board is thus of the opinion that the appellant had enough time before the oral proceedings to prepare its arguments and produce any necessary evidence.
- 24.3 As regards a) the board further notes that the argument based on a generally accepted principle of procedural law and Article 125 was not contained in the grounds of appeal and thus constitutes an amendment to the appellant's case which according to Article 13(1) RPBA

may be admitted and considered at the board's discretion. By interrupting the oral proceedings to allow the appellant to retrieve the European Treaties from the Internet and discussing this issue during oral proceedings, the board had already exercised its discretion favourably for the appellant. It is up to the appellant to prepare its submissions to be made before the board during oral proceedings. Continuation of the proceedings in writing might have been an appropriate procedural step in view of Article 113 (1) EPC, had the board on its own motion raised new objections or introduced new facts with which the appellant could not deal during oral proceedings. This was however not the case here.

- 24.4 In the board's judgment therefore the appellant's request for continuation in writing is not justified and must be rejected.

Reimbursement of the appeal fee

25. According to Rule 67 EPC 1973 the appeal fee shall be reimbursed only on the condition that the board deems the appeal to be allowable. Thus since the appeal is dismissed the request for reimbursement must be rejected for this reason alone.

Order

For these reasons it is decided that:

1. The request for continuation of the proceedings in writing is rejected.
2. The objection under Rule 106 of 20 June 2012 is dismissed.
3. The appeal is dismissed.
4. The request for reimbursement of the appeal fee is rejected.

The Registrar:

The Chairman:

B. Atienza Vivancos

D. H. Rees