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**Datasheet for the decision
of 26 February 2024**

Case Number: T 2154/21 - 3.5.02

Application Number: 16173106.2

Publication Number: 3255752

IPC: H02J7/00, B60L11/18, H02J13/00,
H02J3/00

Language of the proceedings: EN

Title of invention:

A power usage pattern collector and charging controller

Applicant:

Sony Mobile Communications Inc

Relevant legal provisions:

EPC Art. 54
RPBA 2020 Art. 12(6), 13(2)

Keyword:

Main request, auxiliary requests 1, 2, 4 and 5 - Novelty (no)
Auxiliary requests 3, 6 and 7 - Late-filed requests - should
have been submitted in first-instance proceedings (yes)
Auxiliary request 8 - Amendment after summons - exceptional
circumstances (no)



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Case Number: T 2154/21 - 3.5.02

D E C I S I O N
of Technical Board of Appeal 3.5.02
of 26 February 2024

Appellant: Sony Mobile Communications Inc
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 2 June 2021
refusing European patent application No.
16173106.2 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman R. Lord
Members: C.D. Vassoille
R. Cramer

Summary of Facts and Submissions

- I. The appeal of the applicant lies against the decision of the examining division with which European patent application no. 16 173 106.2 was refused.
- II. The following document is relevant for the present decision:
- D1: EP 2 894 488 A1
- III. In the decision under appeal, the examining division concluded that the subject-matter of claim 1 of each of the main request and auxiliary requests 1 and 2 was not new in view of document D1.
- IV. In a communication under Article 15(1) RPBA, annexed to the summons to oral proceedings, the board informed the appellant of its preliminary opinion according to which claim 1 of the main request and of auxiliary requests 1 and 2, did not meet the requirement of Article 54 EPC.
- V. With letter of 26 January 2024, the appellant submitted further auxiliary requests 4 to 8.
- VI. Oral proceedings before the board took place on 26 February 2024.

The appellant (applicant) requested that the contested decision be set aside and that a patent be granted on the basis of the claims of the main request or of one of auxiliary requests 1 to 3, all filed with the statement of grounds of appeal, or on the basis of the claims of one of auxiliary requests 4 to 8 filed with letter of 26 January 2024.

VII. Claim 1 of the main request has the following wording:

"A power usage pattern collector (11) configured to:

collect data on power usage in a device comprising a chargeable power source with regard to at least one particular criterion having influence on power usage in the device;

determine at least one power usage pattern (12) by use of the collected data, said power usage pattern (12) specifying power usage in the device with regard to at least one particular reoccurring criterion; and

determine at least one power usage pattern (12) by:

a) determining reoccurring criteria in the collected data on power usage in a device, wherein a criterion is determined as a reoccurring criterion if the criterion has essentially the same influence on power usage in the device with each reoccurrence;

b) generating the at least one power usage pattern (12) for an individual reoccurring criterion or for a group of interrelated reoccurring criteria,

detect if at least two of the reoccurring criteria together influence the power usage in the device;

generate a group of interrelated reoccurring criteria if at least two of the reoccurring criteria are detected as influencing together the power usage in the device, wherein the power usage pattern (12) further comprises an indication on influence on power use in

the device by the group of interrelated reoccurring criteria; and

provide the at least one power usage pattern to a charging controller (13) for controlling charging of the chargeable power source of the device."

- VIII. Claim 1 of each of auxiliary requests 1 and 4 is identical to claim 1 of the main request.
- IX. Claim 1 of auxiliary request 2 differs from claim 1 of the main request in that its wording was amended as follows:
- "... the power usage pattern (12) further comprises an indication ~~on influence on~~ of change of power use ..." (emphasis added by the board)
- X. Claim 1 of auxiliary request 5 is identical to claim 1 of auxiliary request 2.
- XI. In the light of the decision of the board not to admit auxiliary requests 3 and 6 to 8 into the appeal proceedings, it is not necessary to reproduce the wording of these requests here.
- XII. The appellant argued that the subject-matter of claim 1 of the main request was new in view of document D1. This also applied to the subject-matter of claim 1 of auxiliary requests 1, 2, 4 and 5. They further argued that auxiliary requests 3 and 6 to 8 should be admitted into the appeal proceedings.

The detailed arguments of the appellant are addressed in the reason for the decision below.

Reasons for the Decision

1. Main request - Novelty (Article 54 EPC)

- 1.1 The subject-matter of claim 1 of the main request is not new in view of document D1.
- 1.2 The appellant essentially argued that document D1 did not disclose the detection of reoccurring criteria which, with each reoccurrence, essentially have the same influence on power usage in the device, and that the generation of a group of reoccurring criteria also was not disclosed in this document.

In particular, the disclosure in paragraphs [0049] and [0050] of document D1 differed from detecting a reoccurring criterion as essentially having the same influence on power usage in the device with each reoccurrence. Reoccurring criteria were not mentioned in document D1. Furthermore, in document D1, repeated behaviour of the user may still result in very different power usage with each reoccurrence. Checking of the battery consumption pattern and battery recharging pattern might identify correlations between repeated behaviour and battery consumption of battery charging, but would not identify reoccurring criteria which essentially have the same influence on power usage in the device with each reoccurrence.

As regards the claimed generation of a group of interrelated reoccurring criteria, document D1 in paragraph [0050] at most described that a periodic behaviour of the user was in some way correlated to a recorded battery consumption, which also included information on location and time of battery

consumption, as described in paragraph [0049] of document D1. However, such a periodic behaviour of the user did not constitute reoccurring criteria within the meaning of claim 1 of the main request, because it was not identified on the basis of essentially having the same influence on power usage with each reoccurrence. In particular, the battery consumption recorded in the battery consumption pattern of document D1 could be different each time that the function was executed.

- 1.3 The essential differences considered by the appellant between the subject-matter of claim 1 and the disclosure of document D1 were thus the detection of reoccurring criteria as having essentially the same influence on power usage with each reoccurrence, and that the device grouped such reoccurring criteria if they were detected as influencing together the power usage in the device.
- 1.4 First, the board notes that a criterion is defined in claim 1 as being a reoccurring criterion if the criterion has essentially the same influence on power usage in the device with each reoccurrence. This definition of a reoccurring criterion is very broad and, in particular, does not imply that an identical amount of power is consumed with each reoccurrence. Thus, in view of this very broad wording used in claim 1 of the main request, combined with the very wide range of criteria listed in claim 2, the board arrived at the conclusion that a broad interpretation of the definition of the reoccurring criteria is fully justified.
- 1.5 The appellant further argued that the definition in claim 1 could not be interpreted as covering any arbitrary power consumption or all power consumption

above a threshold. Rather, the influence on power usage should be essentially the same for each reoccurrence i.e. not significantly higher or lower than for other reoccurrences. According to paragraph [0049] of document D1, the battery consumption amount of each situation was stored, even if the battery consumption amount differed significantly between the situations. Accordingly, paragraph [0053] of document D1 disclosed nothing more than recording judging of the amount and corresponding locations, irrespective of whether the influence on power usage was the same with each charging event.

- 1.6 The board does not agree with the appellant on this point. It is explicitly disclosed in document D1, in particular in paragraph [0049], that a battery consumption amount can be stored together with location information, time information and situation information of each situation when a battery consumption of a threshold value or more is generated. A battery usage exceeding a threshold value clearly falls within the definition of claim 1, according to which a criterion is reoccurring, if it has essentially the same influence on power usage in the device with each reoccurrence. Thus, a situation or function that repeatedly causes battery consumption to exceed a certain threshold voltage clearly corresponds to what claim 1 identifies as a reoccurring criterion that has essentially the same influence on power usage in the device each time it occurs.

Since claim 1 does not contain any further definition of what is to be understood by "influence on power consumption in the device", a narrow interpretation as suggested by the appellant is not justified. It is further to be noted that the claim cannot be

interpreted, in the light of the description, more narrowly than is justified by its wording.

- 1.7 Consequently, in view of the rather vague wording of claim 1, in particular the broad definition of a reoccurring criterion, the board is not persuaded by the appellant's arguments regarding the alleged missing disclosure of reoccurring criteria in document D1.
- 1.8 Furthermore, according to claim 1, a group is generated if at least two of the reoccurring criteria are detected as influencing together the power usage in the device.
- 1.9 The appellant argued that the invention according to claim 1 considered, for example, two reoccurring criteria in combination, such as listening to music while riding on a train. The two criteria separately led to different power consumptions, but in combination the two events led to a power consumption which was different from the individual consumptions. Each group of reoccurring criteria therefore had its own power consumption signature, which was not disclosed in document D1.
- 1.10 The board is not convinced by the appellant's argument. In particular, a power consumption signature of mutually influencing events created by grouping the reoccurring criteria, as argued by the appellant, is not reflected by the wording of claim 1. Claim 1 merely states that a group is generated when at least two of the reoccurring criteria together influence the power usage in the device. However, claim 1 does not contain any further definition or indication of the function of the generated group or the specific nature of the power usage of that group. Consequently, the nature and

function of the group generated according to the wording of claim 1 are unclear and must therefore be interpreted broadly.

- 1.11 According to the explicit disclosure in paragraph [0049] of document D1, if a battery consumption of a threshold value or more is generated, the consumption pattern analysis module may check and store location information, time information, and situation information about a function that is being executed and additionally may check and store the battery consumption amount of each situation. Thus, also in document D1 groups of interrelated reoccurring criteria are generated, which are detected as influencing together the power usage in the device within the meaning of claim 1.
- 1.12 The appellant further argued that document D1 did not disclose that a group was generated by the device which records the amounts of power consumption per situation. Rather, the group was predefined in D1 in terms of location or time. Reference was made to figure 9A of document D1.
- 1.13 The board is not convinced by this argument. The wording of claim 1 does not exclude that the reoccurring criteria which together influence the battery usage are predefined as forming a group. From paragraphs [0049], [0050] and [0117] it is clear that also in document D1 the device, in particular the life pattern analysis module, analyses a user's life pattern and thus a user's behaviour. Furthermore, in document D1, the device records situation, information and/or time information that influence together the battery usage in the device, and it is irrelevant if interrelated reoccurring criteria of this kind are

predefined or not, since the wording of claim 1 does not exclude this.

1.14 In the light of the above considerations, the board concluded that the subject-matter of claim 1 of the main request is not new with respect to document D1.

2. Auxiliary request 1 - Novelty (Article 54 EPC)

Claim 1 of auxiliary request 1 is identical to claim 1 of the main request. Therefore, the subject-matter of claim 1 of auxiliary request 1 is not novel over document D1 for the reasons set out with respect to the main request (Article 54 EPC).

3. Auxiliary request 2 - Novelty (Article 54 EPC)

3.1 Claim 1 of auxiliary request 2 differs from claim 1 of the main request in that its wording was amended as follows:

"... the power usage pattern (12) further comprises an indication ~~on influence on~~ of change of power use ..."
(emphasis added by the board)

3.2 The appellant essentially argued that the meaning of "an indication of change of power use" was different from "an indication on influence on power use". In particular, a "change of power use" meant a difference between a power usage before and after the detection of the reoccurring criteria. Document D1 only disclosed storage of an absolute value of a battery consumption but not the storage of a difference in battery consumption, as indicated by the phrase "indication of change of power usage". Claim 1 of auxiliary request 2 was therefore new over document D1.

3.3 The board cannot recognise the substantive difference asserted by the appellant between claim 1 of auxiliary request 2 and claim 1 of the main request. The board is of the opinion that an "indication on influence on power use" in the context of claim 1 is equivalent to an "indication of change of power use".

In particular, the meaning that the appellant attributed to the amended wording "change of" instead of "influence on" in the sense of a difference between the previous power consumption and the power consumption of the detected reoccurring criterion does not convince the board. A corresponding meaning neither explicitly nor implicitly arises from claim 1 and the wording of claim 1 also cannot be interpreted in a restrictive manner on the basis of the description. It is therefore irrelevant whether or not the description discloses a restrictive meaning of the wording "indication of change of power use".

3.4 Consequently, the board concluded that an "indication of change of power use" does not have a different meaning from an "indication on influence on power use", since in the context of claim 1 an influence does not mean anything else than a change in the power usage and vice versa.

3.5 Given that the board concluded that the subject-matter of claim 1 of the main request and claim 1 of auxiliary request 2 are identical in substance, the subject-matter of claim 1 of auxiliary request 2 is not new over document D1 for the same reasons as the subject-matter of claim 1 of the main request (Article 54 EPC).

4. Auxiliary request 3 - Admittance (Article 12(6) RPBA)

- 4.1 With the statement of grounds of appeal, the appellant filed a new auxiliary request 3, which was not part of the first instance proceedings.
- 4.2 Under Article 12(6) RPBA, the board shall not admit requests, facts, objections or evidence which should have been submitted in the proceedings leading to the decision under appeal, unless the circumstances of the appeal case justify their admittance.
- 4.3 The appellant argued that auxiliary request 3 should be admitted into the appeal procedure, because it was filed as a reaction to the examining division's interpretation of the claim language applied in the decision under appeal. In particular, the examining division had applied an overly broad interpretation of the feature of the "reoccurring criteria" as defined in the claims of the main request, auxiliary request 1, and auxiliary request 2. The amendments to the claims according to auxiliary request 3 were intended to avoid such overly broad interpretation by further specifying the characteristics of the reoccurring criteria.
- 4.4 The board cannot accept the appellant's argument, because the examining division had already interpreted the "reoccurring criteria" broadly in section 5 of the summons to oral proceedings and had given reasons for doing so. The appellant was therefore not surprised by a new interpretation in the contested decision to which they had no opportunity to react. Rather, the applicant would have had the opportunity to convince the examining division of a narrower interpretation at the oral proceedings scheduled before the examining division. However, they did not take this opportunity,

but instead withdrew the request for oral proceedings by letter dated 12 May 2021.

- 4.5 The board is therefore not convinced by the appellant's arguments and no other reasons are apparent which could justify the admittance of auxiliary request 3 into the appeal proceedings. The board therefore exercised its discretion under Article 12(6) RPBA not to admit auxiliary request 3 into the appeal proceedings.

5. Auxiliary request 4 - Novelty (Article 54 EPC)

Claim 1 of auxiliary request 4 is identical to claim 1 of the main request. Therefore, the subject-matter of claim 1 of auxiliary request 4 is not novel over document D1 for the reasons set out with respect to the main request (Article 54 EPC). The question of the admittance of auxiliary request 4 into the appeal proceedings could therefore be left open.

6. Auxiliary request 5 - Novelty (Article 54 EPC)

Claim 1 of auxiliary request 5 is identical to claim 1 of auxiliary request 2. Therefore, the subject-matter of claim 1 of auxiliary request 5 is not novel over document D1 for the reasons set out with respect to auxiliary request 2 and with respect to the main request (Article 54 EPC). The question of the admittance of auxiliary request 5 into the appeal proceedings could therefore be left open.

7. Auxiliary requests 6 and 7 - Admittance (Article 12(6) RPBA)

By letter of 26 January 2024, the appellant filed new auxiliary requests 6 and 7, which were not part of the

first instance proceedings. Claim 1 of each of these requests contains an amendment similar to that in auxiliary request 3. Since the appellant has not provided any arguments in support of the admittance of these requests beyond those submitted in respect of auxiliary request 3, the reasons given by the board in respect of auxiliary request 3 apply equally to auxiliary requests 6 and 7.

Therefore, the board exercised its discretion under Article 12(6) RPBA not to admit auxiliary requests 6 and 7 into the appeal proceedings.

8. Auxiliary request 8 - Admittance (Article 13(2) RPBA)

8.1 By letter of 26 January 2024, the appellant filed a new auxiliary request 8, which was not part of the first instance proceedings.

8.2 According to Article 13(2) RPBA in the version as in force as of 1 January 2024, any amendment to a party's appeal case made after the expiry of a period specified by the board in a communication under Rule 100(2) EPC or, where such a communication is not issued, after notification of a communication under Article 15(1) RPBA, shall, in principle, not be taken into account unless there are exceptional circumstances, which have been justified with cogent reasons by the party concerned.

8.3 The appellant essentially argued that the amendments made to the claims of auxiliary request 8 served to overcome the board's objections of lack of clarity against claim 5. However, they did not provide cogent reasons why the extensive substantive amendments made to these claims, in particular to the new method claim

1 of auxiliary request 8, were submitted only after receipt of the board's communication under Article 15(1) RPBA in reaction to exceptional circumstances. No such exceptional circumstances were apparent to the board either.

Therefore, the board exercised its discretion under Article 13(2) RPBA not to take into account auxiliary request 8 in the appeal proceedings.

9. Result

As none of the requests admitted into the appeal proceedings fulfilled the requirement of Article 54 EPC, the appeal was to be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



U. Bultmann

R. Lord

Decision electronically authenticated