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Datasheet for the decision of 15 December 2021

Case Number: T 2446/17 - 3.5.03

Application Number: 10178142.5

Publication Number: 2290998

IPC: H04Q3/00, H04M15/00

Language of the proceedings: EN

Title of invention:
Method for call set-up and a telecommunication system

Applicant:
Ladybird Innovations Oy

Headword:
Call set-up/LADYBIRD

Relevant legal provisions:
EPC Art. 56
EPC R. 100(2)
RPBA 2020 Art. 12(3), 13(1)

Keyword:
Inventive step - main request (no): obvious combination of known features for a person skilled in the art
Admittance of unsubstantiated claim requests - auxiliary requests (no): no justification and amendment detrimental to procedural economy

Decisions cited:
T 0002/83, T 0741/91

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Beschwerdekammern

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Case Number: T 2446/17 - 3.5.03

D E C I S I O N
of Technical Board of Appeal 3.5.03
of 15 December 2021

Appellant: (Applicant)	Ladybird Innovations Oy P.O. Box 346 00131 Helsinki (FI)
Representative:	Väänänen, Mikko Kalervo Suinno Oy PO Box 346 00131 Helsinki (FI)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 19 June 2017 refusing European patent application No. 10178142.5 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chair	K. Bengi-Akyürek
Members:	J. Eraso Helguera
	C. Almberg

Summary of Facts and Submissions

I. The appeal was lodged against the decision of the examining division to refuse the present European patent application for lack of an inventive step (Article 56 EPC) with respect to the claims of a main request and three auxiliary requests, for added subject-matter (Article 123(2) EPC) with respect to the claims of the second and third auxiliary requests and for lack of clarity (Article 84 EPC) with respect to the claims of the second auxiliary request.

II. During the examination proceedings, the examining division referred *inter alia* to the following documents:

D2: WO 94/28683 A1;

Book excerpt: "Understanding Computers", pages 66-68.

III. Oral proceedings before the board were held on 15 December 2021 by videoconference after the issuance of communications under Rule 100(2) EPC and Article 15(1) RPBA 2020.

The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the claims of one of the four requests (**main request** and **three auxiliary requests**) subject to the decision.

At the end of the oral proceedings, the board's decision was announced.

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

"A method of controlling call set-up from a subscriber terminal of a telecommunication system, the telecommunications system comprising a plurality of subscriber terminals (110), a plurality of service provider means (15 to 17, 25, 26, 35, 45, 46), at least one service database means (10, 20, 30 and 40) for storing service information received from said plurality of service provider means, and a telecommunications network via which calls are established in the system, wherein

a service database means (10, 20, 30 and 40) is in connection with the other service database means (10, 20, 30 and 40) and with the plurality of service provider means (15 to 17, 25, 26, 35, 45, 46), or the plurality of service provider means (15 to 17, 25, 26, 35, 45, 46) only, and stores the service information received via the connection,

the service information stored in the service database means (10, 20, 30 and 40) is periodically transmitted over a radio path to a control means so that the service database means (10) establishes, either regularly or when service information is being updated, a connection to said control means (11, 12, 21 to 23, 31 to 33, 41 and 42) attached to the subscriber terminal (110), and

the control means (11, 12, 21 to 23, 31 to 33, 41 and 42) is attached to the subscriber terminal (110) and stores the service information received from the service database means (10, 20, 30 and 40), and the service information stored in or by the control means (11, 12, 21 to 23, 31 to 33, 41 and 42) into data storage is used to direct a subscriber call through a selected one of said plurality of service provider means and thereby control, from said subscriber terminal (110), set-up of said subscriber call."

In view of the reasons below (cf. point 2), it is not necessary to reproduce the wording of the claims of the **auxiliary requests**.

Reasons for the Decision

1. MAIN REQUEST

Claim 1 of the **main request** comprises the following limiting features (board's outline):

(a) A method of controlling call set-up from a subscriber terminal of a telecommunication[s] system, the telecommunications system comprising
(b) a plurality of subscriber terminals,
(c) a plurality of service provider means,
(d) at least one service database means for storing service information received from said plurality of service provider means,
(e) a telecommunications network via which calls are established in the system,
(f) a service database means is in connection with the other service database means and with the plurality of service provider means, or the plurality of service provider means only, and stores the service information received via the connection,
(g) the service information stored in the service database means is periodically transmitted over a radio path to a control means,
(h) so that the service database means establishes, either regularly or when service information is being updated, a connection to said control means attached to the subscriber terminal,
(i) wherein the control means is attached to the subscriber terminal and stores the service

information received from the service database means,

(j) wherein the service information stored in or by the control means into data storage is used to direct a subscriber call through a selected one of said plurality of service provider means and thereby control, from said subscriber terminal, set-up of said subscriber call.

1.1 Claim 1 - claim interpretation

1.1.1 The appellant submitted that the term "data storage" in claim 1 *explicitly* referred to a non-volatile storage of data and therefore excluded a RAM memory. The appellant filed again an excerpt of the book "Understanding Computers", originally filed on 23 March 2016 before the examining division, as proof that the common understanding of data storage did not include volatile memory. The appellant challenged the board to provide even one instance where data that was always lost when the computer is shut down would be deliberately referred to as being in a *data storage*. In the appellant's view, this term, although not explicitly mentioned in the application as filed, was an allowable intermediate generalisation that the skilled person would directly und unambiguously derive from at least page 5, lines 25-30 of the description as filed, which states, when referring to the control means:

> "... *The control means 11 conforming with the inventive solution preferably comprises a digital memory where service information is stored. The memory can be any known type of memory, preferably with changeable content, whose operation is based on optic, electric or magnetic storage. Such*

solutions include e.g. CD (Compact Disc), RAM (Random Access Memory) and hard disk storage ..."

According to the appellant, a "school child easily comprehends that when practical data storage alternatives in 1996, CD and hard disk are disclosed, data storage is disclosed". Furthermore, when the application was drafted in 1996, intermediate generalisation from a species to a genus was a standard accepted way of disclosing knowledge under the EPC. On the other hand, the fact that RAM relies on physical storage, such as *optic, electric or magnetic storage* did not make RAM a *data storage*, as data was lost when the power in the computer was lost.

1.1.2 This is not convincing.

First, the board (and the appellant alike) could only speculate about what a "school child" would have actually understood by the term "data storage" in the school year 1996 of any country. What counts under the EPC is the understanding of the notional "person skilled in the art" in the field of telecommunications systems at the present application's priority date. In fact, this skilled person would have noticed that nothing in the term *data storage* explicitly limits itself to "non-volatile storage of data". With respect to a possible implicit limitation, the common understanding of the term *data storage* encompassed both permanent, non-volatile storage and temporary, volatile storage. Such interpretation is also in line with paragraph [0021] of the application as published, which includes "RAM (Random Access Memory)" as an example of "optic, electric or magnetic storage" and lists it

together with the CD and the hard disk mentioned by the appellant as an equally valid storage solution.

Second, the argument of the appellant based on an excerpt of a textbook is not persuasive. Even if according to a "Personal-Computer jargon" the terms "memory" and "storage" could be given non-overlapping meanings, claim 1 relates to a method carried out in a telecommunications system, which is a different context. Just to name an example, D2 refers on page 21, line 1 to "... a digital store 906 (e.g. RAM) ..."

1.1.3 Hence, the board sees no reason to interpret the term "data storage" in claim 1 as being limited to non-permanent storage or excluding RAM.

1.1.4 Furthermore, the board notes that if, for the sake of argument, *data storage* was accepted as an allowable intermediate generalisation encompassing *CD* and *hard disk* but not RAM, this interpretation would be at odds with the underlying description, which, as explained above, still presents embodiments using RAM as being part of the claimed invention.

1.2 Claim 1 - inventive step starting from D2 (Article 56 EPC)

1.2.1 Using the wording of claim 1, the **second embodiment of D2** discloses:

(a) A method of controlling call set-up from a subscriber terminal of a telecommunication[s] system, the telecommunications system comprising
(b) a plurality of subscriber terminals (p. 11, l. 28-37; Fig. 6: "digital cellular mobile phone equipment 303"),

(c) a plurality of service provider means (Fig. 7: "local transmit/receive stations 304a, 304b, 304c"),
(d) at least one service database means (Fig. 7: "pricing devices 320a, 320b, 320c") for storing service information received from said plurality of service provider means (p. 13, l. 10-11; Fig. 5b, step 114),
(e) a telecommunications network via which calls are established in the system (see e.g. Fig. 1),
(f) a service database means is in connection with the plurality of service provider means only (Fig. 7), and stores the service information received via the connection (p. 13, l. 10-11; Fig. 5b, step 114),
(g) the service information ("price") stored in the service database means is periodically (p. 14, l. 4-7) transmitted over a radio path to a control means (Fig. 6: "processor 314");
(h) ~~so that the service database means establishes, either regularly or when service information is being updated, a connection to said control means attached to the subscriber terminal~~, and
(i) the control means is attached to the subscriber terminal (Fig. 6) and stores the service information received from the service database means (p. 13, l. 22-24), and
(j) the service information stored in or by the control means into data storage (Fig. 6: "RAM 318") is used to direct a subscriber call through a selected one of said plurality of service provider means and thereby control, from said subscriber terminal, set-up of said subscriber call (p. 13, l. 24-26).

1.2.2 The subject-matter of claim 1 thus differs from the disclosure of the second embodiment of D2 in **feature (h).**

1.2.3 The technical effect associated with this feature is, as explained on page 2, lines 12-13 of the original application itself, "eliminating inconveniently timed and congesting polling calls to different operators". The objective technical problem can thus be framed as "how to eliminate inconveniently timed and congesting polling calls to different operators in the system of D2". Moreover, this problem is a task with which a person skilled in the art would realistically have been faced at the application's priority date, since this person would have certainly been aware of the benefits and downsides of the well-known "push" (i.e. provision of service information that was not explicitly requested) and "pull" (i.e. provision of polled service information) schemes at that time.

1.2.4 The subject-matter of claim 1 does not involve an inventive step starting from the second embodiment of **D2**, for the following reasons:

Starting from the second embodiment of D2, and faced with the objective technical problem identified above, the skilled person would have obtained under the heading "Other Embodiments" at page 30, line 31 to page 31, line 1 of D2 the following hint:

> "*Where user apparatus has a visual display device, supplier apparatus may periodically generate 'advertising' messages indicating price, nature or quality and/or availability of service data, and the user apparatus may display such data.*"

When taking up this hint, it would have been apparent that, if the price is periodically advertised by the suppliers, there would have been no need to *poll* the same suppliers to obtain the very same information in

the "price messages". The skilled person would have been well aware of the trade-off involved in receiving price information without a previous request over polling such information. Generally speaking, polling leads typically to more recent information at the expense of additional bandwidth required for the request, which contributes to overall congestion. However, when the price information does not change frequently, periodic updates sent without a previous request also constitute a waste of bandwidth. Depending on the specific circumstances (e.g. the specific price variability), the skilled person would have chosen one possibility or the other, arriving thereby at the subject-matter of claim 1 without the exercise of any inventive skills.

1.2.5 On account of the contested interpretation of the term *data storage* discussed above, the appellant submitted that the memory 318 of D2, depicted as "RAM" in Figure 6, was not *data storage*. Thus, the appellant identified a difference in **feature (j)** in addition to **feature (h)**, already acknowledged by the board. On the basis of these two differences, the appellant formulated the following objective technical problem at the oral proceedings before the board: "how to provide service information to a consumer terminal which experiences power interruptions and moves from country to country."

The appellant submitted that the solution provided by the claim was completely unrealised in the available prior art. The prior art did not provide any indication about how to provide service information to a terminal which experiences power interruptions and moves from country to country. The appellant did not contest the choice of **D2** as a suitable starting point for the

application of the problem-solution approach. However, the problem-solution approach required that the problem be a realistic one in view of the starting point. The skilled person would not have realised in D2 the problem coined by the appellant because this document contained the opposite teaching. Based on D2 and the common general knowledge at the time of the invention, the person skilled in the art could not have deciphered this inventive problem. In particular, replacing the RAM of D2 by a non-volatile RAM (NVRAM) would not have been an option to the skilled person. The skilled person would not have desired to use the same data for call-set up starting from D2, as D2 taught that data in the markets is continuously changing.

With respect to **feature (h)**, the appellant submitted that the advertisements of D2 were not disclosed "to enter data storage". Further, the advertisements were likely to worsen the network congestion. The appellant concluded that this citation appeared as largely irrelevant.

1.2.6 These arguments are not convincing, for the following reasons:

- First, as indicated above, the board does not concur with the appellant's interpretation of *data storage*, and considers this feature to be disclosed by *memory 318* of D2, illustratively depicted as RAM in Figure 6.

- Second, the objective technical problem formulated by the appellant does not convincingly reflect the contribution of the distinguishing features identified. In particular, there seems to be no prominent contribution from the difference

identified in **feature (h)**. Rather, the alleged advantage of having service information readily available after the consumer terminal is switched on appears to be exclusively associated with the use of *permanent* storage, irrespective of whether the service information has been previously requested by the consumer terminal or sent by the network without previous request.

At any rate, the board considers the appellant's objective technical problem as a realistic endeavour starting from D2. Otherwise, the board would have to assume that the appellant itself intends to formulate an unrealistic or artificial objective problem without providing a valid, i.e. more realistic, alternative. However, according to the well-established problem-solution approach, a realistic and obvious objective technical problem is to be formulated (see e.g. T 741/91, catchword 1 and Reasons 3.3), unless a "problem-invention" within the meaning of T 2/83 is invoked. The consumer terminal of the second embodiment of D2 is exemplarily described as a mobile phone being serviced by GSM networks (see D2, page 11, line 34 to page 12, line 11). In this context, the scenario defined by the appellant in which the consumer terminal is switched off and on and moves from country to country is deemed realistic. Regardless of how the mobile phone of D2 obtains the price information stored in the memory 318 of the terminal, it would have been apparent that, if a non-volatile memory is used, this information would be lost when the terminal is powered off. However, there is nothing in D2 teaching away the skilled person from the obvious use a non-volatile RAM (NVRAM) as *working memory* in the terminal **D2**. In

particular, no specific assumptions can be made in D2 with respect to the frequency of changes of the data. The fact that price information may change over time cannot *per se* have deterred the skilled person from considering a permanent storage at the terminal, as long as this price information can be updated whenever needed. The board concedes that in specific situations the price information stored in the memory of the terminal upon powering on might be outdated, but the claimed features do not guarantee a better performance either.

- Third, as to **feature (h)**, the reference to the *'advertising' messages* is merely intended to show that D2 alone already provides an incentive for the skilled person to consider price information explicitly said to be sent periodically by the network, i.e. without a previous request.

1.2.7 In summary, the subject-matter of claim 1 does not involve an inventive step in view of **D2** and the skilled person's common general knowledge.

1.3 It follows that the main request is not allowable under Article 56 EPC.

2. AUXILIARY REQUESTS

2.1 Admittance into the appeal proceedings

2.1.1 The statement of grounds of appeal begins with the following sentence:

"*We request the Boards of Appeal to set aside the Refusal Decision of the Examining Division in its entirety.*"

and ends with the following passage, under the heading "Request of the Applicant":

> "*The Applicant requests that the Main Request be granted a European Patent.*
>
> *Oral proceedings are requested purely as a precautionary measure, should the Boards of Appeal contemplate on doing anything else besides ordering the grant of the Main Request*."

In response to the board's communication under Rule 100(2) EPC, the appellant additionally requested the grant of a patent on the basis of the auxiliary requests subject to the decision under appeal. The appellant maintained these requests in their reply to the board's communication under Article 15(1) RPBA 2020, arguing *inter alia* the following in point 3.2:

> "*Applicant requested the overturning of the decision in its entirety. The Auxiliary requests were rejected in the impugned decision, so of course they are also appealed.*
>
> *The Auxiliary claims are subsets of the Main Request that further patentably distinguish the independent claims. The rejections of the BOA have been erroneous so far to an extent where procedural rationality has dictated to focus on the Main Request.*"

During the oral proceedings before the board, the appellant added that they disagreed with everything that the examining division had done in the refusal. All of the decisions concerning all of the requests were to be overturned. The auxiliary requests should

narrow the scope and were there to demonstrate that, even if some of the board's interpretations could be considered, the application could be amended to render a patentable subject-matter. However, no convincing responses concerning the main request had been received from the board.

2.1.2 Article 12(3) RPBA 2020 (cf. the transitional provisions under Article 25 RPBA 2020) sets out *inter alia* that

> "[t]he statement of grounds of appeal [...] shall contain a party's **complete appeal case**. Accordingly, they shall set out clearly and concisely the reasons why it is requested that the decision under appeal be reversed, amended or upheld, and should specify expressly all the requests, facts, objections, arguments and evidence relied on" (board's emphasis).

Article 13(1) RPBA 2020 stipulates *inter alia* that

> "[a]ny amendment to a party's appeal case after it has filed its grounds of appeal [...] is subject to the party's **justification** for its amendment and may be admitted only at the discretion of the Board".

2.1.3 In order to attain the board's review of the auxiliary requests, rather than waiting for the board to give an opinion on the main request - which is what the appellant did - the appellant was expected, already with their statement of grounds of appeal, to *expressly* specify which auxiliary requests were subject to the appeal, and to provide a specific reasoning with respect to their additional features. Merely requesting *the overturning of the decision in its entirety* cannot

satisfy these requirements with respect to the auxiliary requests subject to the decision under appeal. The board understands that, in the statement of grounds of appeal, the appellant requested the grant of a patent on the basis of the **main request** underlying the decision under appeal, and of the main request only.

2.1.4 The appellant thus requested the grant of a patent on the basis of the claims of the **auxiliary requests** underlying the decision under appeal with their reply to the board's communication under Rule 100(2) EPC, i.e. after the filing of the statement of grounds of appeal and before notification of the summons to oral proceedings. Consequently, admittance of the auxiliary requests on file is subject to the board's discretion pursuant to Article 13(1) RPBA 2020.

2.1.5 However, the appellant did not substantiate or **justify** the admittance of those auxiliary requests in their submissions. Moreover, the omission of specifying the requests subject to review unnecessarily caused the issuance of a second communication by the board, and admitting the auxiliary requests would have been further detrimental to procedural economy. In view of the appellant's original request, the board had no reason to give a preliminary opinion on the auxiliary requests in its first communication under Rule 100(2) EPC, and the appellant did not comment on the reasons for the refusal of the auxiliary requests in their reply to the board's first communication. The reply to the board's second communication under Article 15(1) RPBA 2020 also failed to contain any specific reasoning and thus substantiation with respect to those auxiliary requests.

2.2 In view of the above, the board did not admit the auxiliary requests into the appeal proceedings (Article 13(1) RPBA 2020).

3. Since there is no allowable claim request on file, the appeal must be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chair:

B. Brückner K. Bengi-Akyürek

Decision electronically authenticated