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**Datasheet for the decision
of 24 March 2023**

Case Number: T 2043/20 - 3.5.05

Application Number: 10813359.6

Publication Number: 2442475

IPC: H04L12/56

Language of the proceedings: EN

Title of invention:

USER SIDE MULTICAST SERVICE PRIMARY AND STANDBY PROTECTION
SYSTEM, METHOD AND ROUTE DEVICE

Applicant:

Huawei Technologies Co., Ltd.

Headword:

Synchronising multicast service user information/HUAWEI

Relevant legal provisions:

RPBA 2020 Art. 12(4), 12(6), 13(1), 13(2)
EPC Art. 123(2)

Keyword:

Amendment to case - third to fifth auxiliary requests -
admitted (yes) - sixth and seventh auxiliary requests -
admitted (no)

Amendments - main request and first to fifth auxiliary
requests - added subject-matter (yes)



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Case Number: T 2043/20 - 3.5.05

D E C I S I O N
of Technical Board of Appeal 3.5.05
of 24 March 2023

Appellant: Huawei Technologies Co., Ltd.
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 29 July 2020
refusing European patent application No.
10813359.6 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chair A. Ritzka
Members: C. Barel-Faucheux
K. Kerber-Zubrzycka

Summary of Facts and Submissions

- I. The appellant (applicant) appealed against the examining division's decision to refuse European patent application No. 10813359.6 (published as EP 2 442 475).
- II. The documents cited in the contested decision included:
D1: US 6 148 410 A published on 14 November 2000
D2: WO 2005/039129 A1 published on 28 April 2005
D3: US 2005/0213498 A1 published on 29 September 2005
D4: US 2003/0140166 A1 published on 24 July 2003
D5: CN 101 420 362 A published on 29 April 2009
D5a: EP 2 107 729 A1 published on 7 October 2009
- III. The examining division decided that independent claims 1, 3 and 7 of the main request and claims 1 and 3 of the first auxiliary request lacked novelty over document D1 (Article 54(1) and (2) EPC); claims 1 and 3 of the main request and of the first auxiliary request did not fall within the exception of Rule 43(2)(a) EPC; claim 1 of the second auxiliary request was not inventive over "any common router"; claim 3 of the second auxiliary request was not inventive over document D1 (Article 56 EPC); and claims 1 and 3 did not fall within the exception of Rule 43(2)(a) EPC.

In an *obiter dictum* (section III, "Further remarks", point 8, see "The following observations do not form part of this decision"), the examining division stated that documents D1 to D5 were not identified in the description and that the relevant background art disclosed in these documents was not discussed in the description, contrary to the requirements of Rule 42(1)

(b) EPC. Claim 1 of the second auxiliary request lacked novelty over document D1 (Article 54(1) and (2) EPC).

IV. In its statement of grounds of appeal, the appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of one of the main request and the first and second auxiliary requests, all requests subject of the contested decision and resubmitted with the statement of grounds, or one of the third to fifth auxiliary requests filed with the statement of grounds. An amended description was also filed as an alternative to the description on file before the examining division as a reaction to the statement in the decision on non-compliance with Rule 42(1)(b) EPC.

V. In a communication accompanying the summons to oral proceedings, the board stated that claim 1 of the main request and the first auxiliary request contained added subject-matter, contrary to the requirements of Article 123(2) EPC, and lacked essential features (Article 84 EPC), and that claims 1 and 3 of the main request and first auxiliary request lacked clarity (Article 84 EPC).

It also expressed its preliminary view that claims 1 and 3 of the main request and the first auxiliary request appeared to be novel over document D1.

The board stated that the questions to be discussed during oral proceedings were whether independent claims 1, 3 and 7 of the main request and the first auxiliary requests and independent claims 1 and 3 of the second auxiliary requests involved an inventive step having regard to document D1. The board preliminarily noted that due to missing essential features, the technical

effect was not achieved, and thus the technical problem was not solved over the full range of the claim.

In its communication, the board wrote that objections raised for claim 1 and the main request could apply, *mutatis mutandis*, also to further claims and the auxiliary requests if they contained the same or similar features.

The board stated that it was inclined to agree with the examining division that the requirements of Rule 43(2) EPC were not complied with by independent claims 1 and 3 of the main request and the first to second auxiliary requests.

The board agreed with the appellant that to prevent an *ex-post facto* analysis, at least a document disclosing a router in a multicast context should have been used in the analysis of the examining division using any common internet router as the starting point.

The board was inclined to admit the third to fifth auxiliary requests into the proceedings. Furthermore, inventive step would be discussed at oral proceedings.

The board announced that should the board consider one of the requests inventive over the disclosure of document D1 and should the further objections raised in the board's communication be overcome, the board intended to remit the case for further prosecution having regard to documents D2 to D5.

VI. With a letter dated 2 February 2023, the appellant filed a new sixth and a new seventh auxiliary request together with further arguments on the admissibility of the newly filed requests, the objections under Article

123(2) EPC and Article 84 EPC, and novelty. It requested that the decision under appeal be set aside and that a patent be granted based on the claims, the description and the drawings of the main request on which the decision under appeal was based, auxiliarily based on the claims of the main request on which the decision under appeal was based and the description as filed on 4 December 2020, auxiliarily based on one of the first to seventh auxiliary requests and the description and the drawings on which the decision under appeal was based, auxiliarily based on one of the first to seventh auxiliary requests and the description as filed on 4 December 2020. It further requested that the appellant be provided with detailed information on possible grounds for non-acceptance well before the oral proceedings and that the oral proceedings only be held if a grant or remittal to the examination division did not appear possible in the written procedure before the board.

- VII. On 20 February 2023, the appellant filed an enquiry asking for the rapporteur or the board to contact it before the oral proceedings. In response to this enquiry, a communication of the registry was sent to the appellant on 21 February 2023 by which the board informed the appellant that the date for oral proceedings was maintained and the hearing would be held in person as summoned.
- VIII. By letter of 22 March 2023, the board was informed that the appellant would not attend the scheduled oral proceedings.
- IX. Oral proceedings were thus held as scheduled on 24 March 2023, in the absence of the appellant.

X. The appellant's final requests were the ones set out in the letter dated 2 February 2023 (see point VI. above).

XI. Claim 1 of the main request and the first auxiliary request reads as follows:

"A routing device, comprising:
a user information synchronizing backup module (11), configured to synchronize multicast service user information to at least one second routing device through a convergence device, wherein the routing device and the at least one second routing device are both connected to the convergence device, and wherein the multicast service user information is for identifying users."

XII. Claim 1 of the second and third auxiliary requests reads as follows (underlining by the board):

"A routing device, comprising:
a user information synchronizing backup module (11), configured to synchronize multicast service user information to at least one second routing device through a convergence device, wherein the routing device and the at least one second routing device are both connected to the convergence device, and wherein the multicast service user information is for identifying and authenticating users."

XIII. Claim 1 of the fourth and fifth auxiliary requests reads as follows:

"A routing device, comprising:
a user information synchronizing backup module (11), configured to synchronize multicast service user information to at least one second routing device through a convergence device, to indicate the second routing device to use the multicast service user information for identifying and authenticating users of

the user side, when the state of the second routing device is changed from unavailable to available, wherein the routing device and the at least one second routing device are both connected to the convergence device."

XIV. Claim 1 of the sixth auxiliary request reads as follows:

"A routing device, comprising:
a user information synchronizing backup module (11), configured to synchronize multicast service user information to at least one second routing device in real time through a convergence device, wherein the routing device and the at least one second routing device are both connected to the convergence device on the user side, wherein the routing device is an active device being in an active state in which the first routing device is available, wherein the at least one second routing device is in a standby state, and wherein the multicast service user information is for identifying and authenticating users, and the multicast service user information is user-side information related to multicast service accessed by a user."

XV. Claim 1 of the seventh auxiliary request reads as follows:

"A system of active/standby protection for user-side multicast services, comprising a first routing device (1) a at least one second routing device (2), and a convergence device, wherein the first routing device and the second routing device are both connected to the convergence device on the user side,
wherein the first routing device (1), comprises:
a user information synchronizing backup module (11), configured to synchronize multicast service user information to the at least one second routing device

in real time through the convergence device, wherein the routing device is an active device being in an active state in which the first routing device is available, and wherein the multicast service user information is for identifying and authenticating users, and the multicast service user information is user-side information related to multicast service accessed by a user,

wherein the at least one second routing device comprises:

a user information synchronizing storage module (21), configured to store multicast service user information synchronized from the first routing device in real time through the convergence device, wherein the second routing device is in a standby state; and

an active/standby switching module (22), configured to select a second active device to replace the first routing device when detecting that a state of the first routing device is changed from available to unavailable, wherein the routing device is configured to:

identify and authenticate the users based on the multicast service user information when the routing device is selected as the second active device, and

provide multicast service for the identified and authenticated users."

XVI. The appellant's arguments relevant to the decision are discussed in detail below.

Reasons for the Decision

1. *The application*

1.1 The application relates to data traffic protection for "user-side" multicast services (paragraphs [0002] and

[0004]). In essence, a first routing device 1 is configured to synchronise "multicast service user information" to at least one second routing device 2 in real time through a convergence device 3. The at least one second routing device 2 is configured to select a second active device to replace the first routing device 1 after detecting that a state of the first routing device 1 is changed from available to unavailable (paragraph [0025] in conjunction with Figure 1). The first routing device 1 as the active device may include a user information synchronising backup module 11 configured to synchronise multicast service user information to the second routing device 2 in real time through the convergence device 3. The second routing device 2 may include a user information synchronising storage module 22 and an active/standby switching module 21 (paragraphs [0026] and [0028] in conjunction with Figure 3 reproduced below).

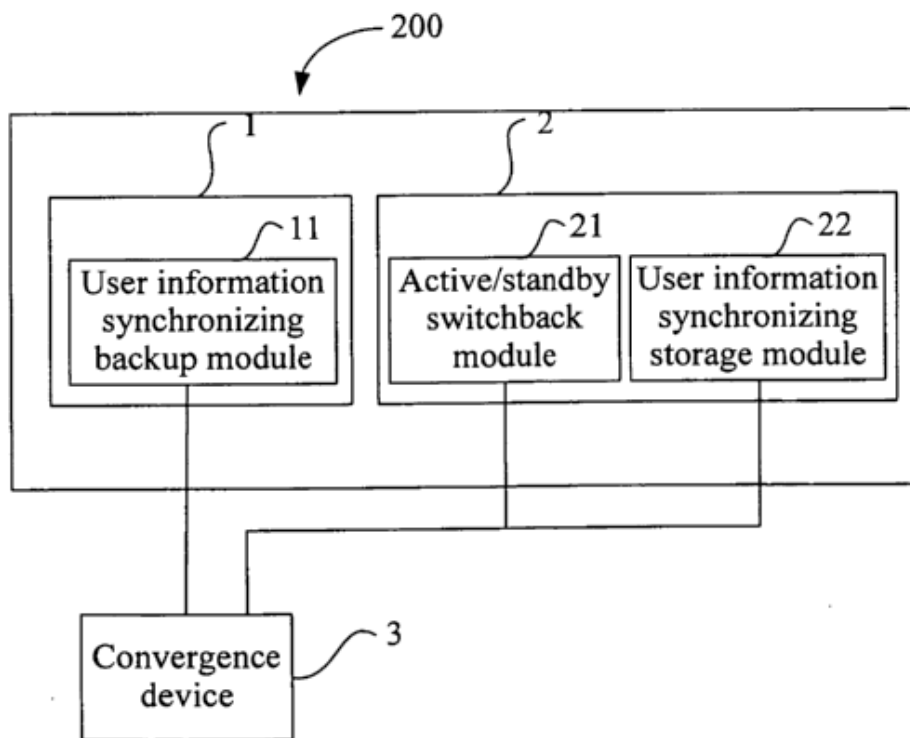


FIG. 3

2. *Third to fifth auxiliary requests - admissibility under Articles 12(4) and 12(6) RPBA 2020.*

2.1 In support of admissibility of the third to fifth auxiliary requests, which are to be regarded as amendments under Article 12(4) RPBA 2020, the appellant argued that new arguments (denoted by the appellant as "new observations" 1 and 2), mentioned neither earlier in the written examination nor during the oral proceedings before the examining division, had been presented in the contested decision (statement of grounds, section II, sub-section 2 on pages 3 and 4).

2.2 The board notes that "new observation" 2 was raised in an *obiter dictum* on page 9 of the decision which does not form part of the decision. The decision is thus not based on this "new observation" 2.

2.3 "New observation" 1 is the argument of the examining division that "both servers and clients in D1 can be regarded as router users and some user identification is needed to direct traffic on uplink and downlink to the correct users" (decision, point 5.2.1).

2.4 The board notes that in the set of claims of the third auxiliary request, claim 1 corresponds to claim 1 of the second auxiliary request but some claims, in particular, independent claim 3, of the second auxiliary request have been deleted. This overcomes the Rule 43(2) EPC objection raised by the examining division (decision, point 7.3).

2.4.1 Under Article 12(6) RPBA 2020, 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. The objection under Rule 43(2) EPC was, however, also present in the annex to the summons to oral proceedings for the then claims 1 and 3 (annex to the summons, point 5.4).

- 2.4.2 However, this amendment of the third auxiliary request overcomes the Rule 43(2) EPC objection and does not constitute a complex amendment. Therefore, the board decided to admit the third auxiliary request.
- 2.5 Claim 1 of the fourth auxiliary request corresponds to claim 1 of the second auxiliary request with the deletion of ", and wherein the multicast service user information is for identifying and authenticating users" and the addition of the feature that the user information synchronising backup module is additionally configured "to indicate the second routing device to use the multicast service user information for identifying and authenticating users of the user side, when the state of the second routing device is changed from unavailable to available" (emphasis by the board).
 - 2.5.1 The board is of the opinion that this amendment is an attempt to reply to "New observation 1". This was also confirmed by the appellant (statement of grounds, page 5, section 2.2). Therefore, the board decided to admit the fourth auxiliary request.
- 2.6 The fifth auxiliary request corresponds to the fourth auxiliary request in which at least independent claim 3 of the fourth auxiliary request has been deleted. For reasons similar to the ones in point 2.4 above, the board decided to admit the fifth auxiliary request.

3. *Main request and the first to fifth auxiliary requests - added subject-matter*
- 3.1 Claim 1 of the main request and the first auxiliary request was first submitted on 15 May 2020 in preparation for the oral proceedings before the examining division. The appellant provided paragraph [0026] of the description as the basis for the amendments.
- 3.2 Paragraph [0026] states that, in Figure 3, the first routing device 1 is the active device and may include a user information synchronising backup module 11 configured to synchronise multicast service user information to the second routing device 2 in real time through the convergence device. According to this paragraph, upon active/standby switching, the second routing device 2 is able to identify and authenticate the user according to the multicast service user information without interrupting, by the second routing device 2, the accessed multicast service and keeps serving the user according to the multicast service user information.
- 3.3 In an annex dated 9 December 2019 accompanying the summons to oral proceedings, the examining division had raised an Article 123(2) EPC objection on the lack of an active/switchback module in amended claim 1 together with an Article 84 EPC objection on the expression "in real time" (points 4 and 5.2 of the annex to the summons).
- 3.4 First, the board does not consider the expression "in real time" unclear. It is clear for a person skilled in the art what this expression means, i.e. that there is

no noticeable delay between the synchronising action of the user information synchronising backup module 11 of the first routing device 1 and the effect that the multicast service user information is synchronised at the second routing device 2. In other words, this synchronisation occurs almost immediately.

3.5 Furthermore, claim 1 as originally filed read:

"A routing device, wherein:

the routing device and at least one second routing device are both connected to a convergence device, and the routing device is an active device; and

the routing device comprises a user information synchronizing backup module, configured to synchronize multicast service user information to the at least one second routing device in real time through the convergence device".

3.6 The deletion of the expression "in real time" resulted thus in added subject-matter, or at least a lack of support, since the synchronisation of the multicast service user information to the second routing device is described as taking place "in real time" throughout the description as originally filed (paragraphs [0008] to [0012], [0025] to [0028], [0039] and [0042]).

3.7 Therefore, claim 1 of the main request and the first to fifth auxiliary requests do not fulfill the requirements of Article 123(2) EPC.

4. *Sixth and seventh auxiliary requests - admissibility under Articles 13(2) and (1) RPBA 2020*

4.1 The sixth auxiliary request does not *prima facie* overcome the Rule 43(2) EPC objection (see section V. above) and the clarity objections raised in points 10

to 12 of the board's communication (see appellant's letter dated 2 February 2023).

4.2 These requests raise new clarity and added subject-matter issues.

4.2.1 The expression "on the user side" (denoted as amendment A6 in the appellant's letter dated 2 February 2023) is not clear under Article 84 EPC. It is not clear whether the convergence device has a "user side" to which the first and second routing devices are connected or whether, on a previously non-defined "user side" of the routing device or system, the first and second routing devices are connected to the convergence device.

4.2.2 Moreover, in the appellant's letter dated 2 February 2023, the appellant indicated PCT original claims 1, 3 and 7 as well as paragraph [0023] and [0025] to [0030] of the description as originally filed as the basis for the amendment. The board does not consider that PCT original claims 1, 3 and 7 provide a basis for the amendment. Moreover, paragraph [0023] of the description reads: "In downlink, they are both connected to a convergence device 31, a convergence device 32, or a convergence device 33 on the user-side". Here, the expression "downlink" relates to the system illustrated by Figure 1 in which the first and at least one second routing devices are connected to a (IP/MPLS) core network which is itself connected to the internet; and the user-side, including the first and at least one second active devices according to paragraph [0022], is a side of the core network opposite to the internet-side. Therefore, the omission of (some parts of) the configuration of the system having a core network connected to the internet constitutes an

intermediate generalisation contrary to the requirements of Article 123(2) EPC.

4.3 Therefore, the board decided not to admit the sixth and seventh auxiliary requests into the proceedings (Article 13(2) and (1) RPBA 2020).

5. *Requests to provide the appellant with detailed information on possible grounds for non-acceptance well before the oral proceedings and to hold the oral proceedings only if a grant or remittal to the examination division does not appear possible in the written procedure before the board*

5.1 Under Article 15(1) RPBA, to help concentration on essentials during the oral proceedings, the board shall issue a communication drawing attention to matters that seem to be of particular significance for the decision to be taken and may also provide a preliminary opinion. In the current case, the board issued a communication according to Article 15(1) RPBA on 7 July 2022. Neither the RPBA nor the EPC provides a basis for an additional written communication in preparation for oral proceedings.

5.2 Furthermore, the board considered it appropriate, after having sent a comprehensive preliminary opinion in preparation for the oral proceedings, to hold oral proceedings to discuss inventive step further (see points 19.17, 20, 28 and 39 of the board's communication). The board also announced in its communication that should the board consider any request inventive over the disclosure of document D1 and should the further objections raised in the communication be overcome, the board intended to remit

the case for further prosecution having regard to documents D2 to D5.

5.3 The board acts as a collegial body. It is therefore not provided for that the appellant contacts the rapporteur to discuss the preliminary opinion of the rapporteur or the board on newly submitted requests or arguments before the oral proceedings. No informal discussions with the board before the oral proceedings are provided for also because the oral proceedings before the boards are public. The public should not be deprived of the possibility to listen to the discussions between the party(ies) and the board (except in cases where admission of the public could cause serious and unjustified disadvantages, in particular, for a party to the proceedings, Article 116(4) EPC).

5.4 These requests were therefore not granted.

Conclusion

6. Since none of the requests is allowable, the appeal is to be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chair:



K. Götz-Wein

A. Ritzka

Decision electronically authenticated