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**Datasheet for the decision
of 31 January 2024**

Case Number: T 0475/22 - 3.5.03

Application Number: 16797498.9

Publication Number: 3406102

IPC: H04W60/04, H04W36/12,
H04W36/38, H04W48/00,
H04W36/32, H04W88/14

Language of the proceedings: EN

Title of invention:

Tracking area and user plane mapping for control plane/user
plane split

Applicant:

Telefonaktiebolaget LM Ericsson (PUBL)

Headword:

Separation of user and control plane/ERICSSON

Relevant legal provisions:

EPC Art. 84

Keyword:

Clarity - main and auxiliary request (no)
Support by the description - main and auxiliary request (no)



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Case Number: T 0475/22 - 3.5.03

D E C I S I O N
of Technical Board of Appeal 3.5.03
of 31 January 2024

Appellant: Telefonaktiebolaget LM Ericsson (PUBL)
(Applicant) 164 83 Stockholm (SE)

Representative: Ericsson
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Decision under appeal: **Decision of the Examining Division of the European Patent Office posted on 13 September 2021 refusing European patent application No. 16797498.9 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chair K. Bengi-Akyürek
Members: P. Tabery
F. Bostedt

Summary of Facts and Submissions

- I. The appeal is directed against the examining division's decision to refuse the European patent application. The examining division decided that the application - according to the sole main request - did not meet the requirements of Articles 123(2), 84 and 54 EPC.
- II. The examining division referred to the following document:

D4: Ericsson: "TAI List problem and User plane area mapping", 3GPP Draft S2-160148, 25-29 January 2016; server date 17 January 2016; downloaded by the EPO on 25 January 2016.
- III. In its statement of grounds of appeal, the appellant requested that a patent be granted on the basis of the claims in accordance with either the main request or an auxiliary request 1, submitted for the first time with the statement of grounds of appeal.
- IV. In a communication under Article 15(1) RPBA 2020, the board considered that neither of the claim requests met the requirements of Articles 84 EPC and 54 EPC.
- V. In response to the board's communication, the appellant requested a correction under Rule 139 EPC of an obvious error in claim 2 of auxiliary request 1 and provided further counter-arguments on the board's preliminary opinion.
- VI. Oral proceedings were held on 31 January 2024. The appellant requested that the decision under appeal be

set aside and that a patent be granted on the basis of the claims of the **main request** or of **auxiliary request 1**. At the end of the oral proceedings, the board's decision was announced.

VII. Claim 1 of the **main request** reads as follows (board's labelling):

- (a) "A cellular communications system, the cellular communications system having an architecture in which SGW user plane functionality is separated from SGW control plane functionality, comprising:
- (b) an SGW-C, the cellular communication system moreover comprising an MME, the cellular communication system comprising service areas;
- (c) wherein the SGW-C is partitioned into a plurality of virtual SGW-Cs;
- (d) the cellular system moreover comprising a plurality of SGW-UP service areas;
- (e) each virtual SGW-C corresponding to a respective SGW-UP service area;
- (f) a plurality of SGW-UP pools each comprising one or more SGW-Us, wherein each SGW-UP pool serves a respective one of the plurality of SGW-UP service areas and wherein
- (g) the MME being adapted for treating each virtual SGW-C of the plurality of virtual SGW-Cs as a legacy SGW."

In claim 1 of **auxiliary request 1**, feature (g) has been amended and now reads as follows:

(g') "the MME being adapted for treating the various SGW-C partitions in the same way as SGWs are handled in the legacy Evolved Packet Core, EPC, architecture."

Reasons for the Decision

1. The present application concerns a 3GPP system including service gateways (SGWs) and a mobility management entity (MME) and relying on a separation of user plane (UP) and control (C) plane functions.
2. Main request
 - 2.1 As to feature (g) of claim 1, the board concurs with the examining division (cf. appealed decision, Reasons 18.1) that the formulation "treating each ... SGW-C ... as a legacy SGW" obfuscates the scope of claim 1. In fact, it merely defines the "result to be achieved" rather than the structural features of the claimed system actually needed therefor.
 - 2.2 The board is not convinced by the appellant's argument according to which this statement was clear since it was not found to be inconsistent with other parts of the present application. Although the board concurs with the appellant that "virtualisation" in 3GPP cellular communication systems is known as such, the claim nevertheless fails to specify how the virtualisation is actually implemented in the claimed cellular system to achieve the claimed result and thus to clearly indicate the subject-matter for which

protection is sought.

- 2.3 Moreover, the claimed subject-matter, in particular feature (g), relates to the embodiment illustrated by Figure 8 of the present application, which is explicitly disclosed as having "no MME impact" in paragraphs [0047] and [0086] of the application as filed, i.e. not requiring any adaptation of the MME. Hence, the claimed phrase "the MME being adapted for" constitutes an evident contradiction to what is disclosed in said embodiment.
- 2.4 The board is not convinced by the appellant's argument that this feature was to be understood as requiring the SGW-C to be adapted for operating with a "legacy MME". Feature (g) evidently comprises an "adapted MME", which may thus differ from a "legacy MME". What kind of changes are in fact required to actually allow the MME to treat the virtual SGW-Cs as a "legacy SGW" is not specified in claim 1 (see also the clarity objection raised in point 2.1 above).
- 2.5 Consequently, feature (g) of claim 1 is neither clear nor supported by the description (Article 84, second sentence, EPC).
- 2.6 In view of the above, the **main request** is not allowable under Article 84 EPC.
3. Auxiliary request 1
- 3.1 This auxiliary request, which includes the amended feature (g') in claim 1, was submitted with the statement of grounds of appeal in order to address the examining division's objection as to the validity of the priority right. Therefore, the underlying amendment

was not filed as an attempt to overcome the objections raised under Article 84 EPC in the decision under appeal and confirmed by the board.

- 3.2 The amended feature (g') of present claim 1 contains formulations corresponding to those that give rise to the objections under Article 84 EPC discussed above with respect to feature (g) of claim 1 of the main request.
- 3.3 In view of the fact that claim 1 does not comply with Article 84 EPC, it is irrelevant for this decision whether the requested correction of claim 2 is allowable under Rule 139, second sentence, EPC (cf. point V above).
- 3.4 As a consequence, **auxiliary request 1** is not allowable under Article 84 EPC either.
4. In light of the above-mentioned deficiencies of the present claim requests, it is not necessary to address the issue of the validity of the claimed priority as well as the question of novelty of the claimed subject-matter over document **D4** in this reasoned decision.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chair:



B. Brückner

K. Bengi-Akyürek

Decision electronically authenticated