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Datasheet for the decision of 19 March 2013

Case Number: T 2174/09 - 3.5.05

Application Number: 06773986.2

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Language of the proceedings: EN

Title of invention:
Converged offline charging and online charging

Applicant:
Alcatel-Lucent USA Inc.

Headword:
Converged charging/ALCATEL-LUCENT

Relevant legal provisions:
EPC Art. 56, 84
RPBA Art. 12(4), 13(1)

Keyword:
Clarity - main, first and second auxiliary requests (yes)
Inventive step - main, first and second auxiliary requests (no)
Admission - further auxiliary request (no)

Decisions cited:

Catchword:

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Case Number: T 2174/09 - 3.5.05

D E C I S I O N
of Technical Board of Appeal 3.5.05
of 19 March 2013

Appellant: (Applicant)	Alcatel-Lucent USA Inc. 600-700 Mountain Avenue Murray Hill, NJ 07974 (US)
Representative:	Hervouet, Sylvie Feray Lenne Conseil Le Centralis 63, avenue du Général Leclerc 92340 Bourg-la-Reine (FR)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 26 June 2009 refusing European patent application No. 06773986.2 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chair: A. Ritzka
Members: K. Bengi-Akyuerek
D. Prietzel-Funk

Summary of Facts and Submissions

I. The appeal is against the decision of the examining division, posted on 26 June 2009, refusing European patent application No. 06773986.2 on the ground of lack of support by the description (Article 84 EPC) with respect to a sole request.

In an *obiter dictum* under the heading "Remarks", the decision under appeal also stated *inter alia* that the application lacked an inventive step (Article 56 EPC), mainly having regard to the disclosure of

D1: EP-A-1 492 321.

II. Notice of appeal was received on 24 August 2009. The appeal fee was paid on the same day. With the statement setting out the grounds of appeal, received on 3 November 2009, new claims according to a first and a second auxiliary request were submitted. The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of a main request, filed on 26 May 2009 in the first-instance proceedings, or any of the auxiliary requests submitted with the statement setting out the grounds of appeal.

III. A summons to oral proceedings scheduled for 19 March 2013 was issued on 31 October 2012. In an annex to this summons, the board gave its preliminary opinion on the appeal pursuant to Article 15(1) RPBA. In particular, objections were raised under Article 56 EPC, mainly in view of D1.

IV. With a letter of reply dated 7 February 2013, the appellant submitted amended claims as a further auxiliary request, to be examined in case the board

maintained the rejection of the pending sets of claims, and provided counter-arguments with regard to both the pending and new claim sets. Furthermore, the appellant requested that the scheduled oral proceedings be cancelled and informed the board that, if they were held, it would not be attending them.

V. With a communication dated 27 February 2013, the appellant was informed that the oral proceedings would take place on 19 March 2013 as announced.

VI. Oral proceedings were held on 19 March 2013 in the absence of the appellant. After due deliberation on the basis of the pending requests and the written submissions, the decision of the board was announced at the end of the oral proceedings.

VII. Independent claim 1 of the main request reads as follows:

"A converged charging system (404) for offline charging and online charging in a communication network (402), the converged charging system comprising

an online charging system (414) operable to receive online charging information for a first call from the communication network (402), to access a rating function to determine a rating for the first call, and to generate a rated charging data record, CDR, for the first call based on the online charging information and the rating for the first call; and

an offline charging system (412) operable to receive offline charging information for a second call from the communication network (402);

the converged charging system (404) characterized by:

a common rating function (416) accessible to

the online charging system (414) and the offline charging system (412) that is operable to determine ratings for online calls and offline calls occurring in the communication network (402);

the online charging system (414) further operable to access the common rating function (416) to determine the rating for the first call to generate the rated CDR for the first call;

the offline charging system (412) further operable to access the common rating function to determine a rating for the second call, and to generate a rated CDR for the second call based on the offline charging information and the rating for the second call; and

a common charging gateway function (418) operable to receive the rated CDRs from the online charging system (414) and the offline charging system (412), and to buffer the rated CDRs."

Independent claim 1 of the first auxiliary request reads as follows:

"A converged charging system (404) for offline charging and online charging in a communication network (402), the converged charging system comprising

an online charging system (414) operable to receive online charging information for a first call from the communication network (402), and to generate a rated charging data record, CDR, for the first call based on the online charging information and a rating for the first call; and

an offline charging system (412) operable to receive offline charging information for a second call from the communication network (402);

the converged charging system (404) characterized by:

a common rating function (416) that is operable to determine ratings for online calls and offline calls occurring in the communication network (402);

the online charging system (414) further operable to access the common rating function (416) to determine the rating for the first call to generate the rated CDR for the first call;

the offline charging system (412) further operable to access the common rating function to determine a rating for the second call, and to generate a rated CDR for the second call based on the offline charging information and the rating for the second call; and

a common charging gateway function (418) operable to receive the rated CDRs for the first and second calls, and to buffer the rated CDRs."

Independent claim 1 of the second auxiliary request comprises all the features of claim 1 of the first auxiliary request except that its penultimate paragraph has been replaced by the following phrase:

"one of the offline charging system (412) or the online charging system (414) further operable to access the common rating function to determine a rating for the second call, and to generate a rated CDR for the second call based on the offline charging information and the rating for the second call; and".

Independent claim 1 of the further auxiliary request reads as follows:

"A converged charging system (404) for offline charging and online charging in a communication network (402), the converged charging system comprising

an online charging system (414) comprising an

online charging function (622) and a rating function (416), wherein the online charging function is operable to receive online charging information for a first call, to access the rating function to determine a rating for the first call, and to generate a rated charging data record, CDR, for the first call based on the online charging information and the rating for the first call; and

an offline charging system (412);

the converged charging system (404) characterized by:

a common charging gateway function (418) operable to transmit rated CDRs to a billing system (406);

the offline charging system (412) comprising a charging data function (612) that is operable to receive offline charging information for a second call, to generate an unrated CDR for the second call based on the offline charging information, and to transmit the unrated CDR for the second call to the common charging gateway function;

the common charging gateway function operable to transmit the unrated CDR for the second call to the online charging function;

the online charging function operable to access the rating function to determine a rating for the second call, to generate a rated CDR for the second call based on the unrated CDR for the second call and the rating for the second call, and to transmit the rated CDR for the second call to the common charging gateway function."

The further independent claim 6 of the main request and of all the auxiliary requests is directed to a corresponding method.

Reasons for the Decision

1. Admissibility of the appeal

The appeal complies with the provisions of Articles 106 to 108 EPC (cf. point II above) and is therefore admissible.

2. Non-attendance at oral proceedings

The appellant decided not to attend the scheduled oral proceedings. Pursuant to Article 15(3) RPBA, the board is not obliged to delay any step in the appeal proceedings, including its decision, by reason only of the absence at the oral proceedings of any party duly summoned who may then be treated as relying only on its written case.

In the present case, the appellant submitted a further auxiliary request together with comments in response to the objections raised in the board's communication under Article 15(1) RPBA. The board reconsidered and maintained those objections, and was in a position to take a decision at the end of the oral proceedings in the exercise of its discretion under Article 15(3) RPBA.

3. MAIN REQUEST

This request corresponds to the main request underlying the appealed decision.

3.1 Article 84 EPC

The board judges that independent claims 1 and 6 of this request meet the requirements of Article 84 EPC,

for the following reasons:

The examining division held that claims 1 and 6 were not clear, since the embodiment described by the disclosure of page 9, line 10 *ff.* in conjunction with Fig. 6 did not fall within the scope of those claims (cf. appealed decision, section 7).

The board finds, however, that claims 1 and 6 are fully supported by at least one embodiment, namely the "exemplary embodiment", presented on page 6, line 18 to page 9, line 9 in conjunction with Figs. 4 and 5 of the application as filed. For these reasons, claims 1 and 6 of this request are clear and supported by the description under Article 84 EPC, contrary to the finding in the decision under appeal.

3.2 Article 52(1) EPC: Novelty and inventive step

In the board's judgment, claims 1 and 6 of this request do not meet the requirements of Article 52(1) EPC in conjunction with Article 56 EPC, for the following reasons:

3.2.1 The board concurs with the examining division in considering D1 as the closest prior art, since it is related to the same purpose as the present invention, namely, charging for pre-paid and post-paid telecommunication services (i.e. online and offline charging).

3.2.2 D1 discloses, with regard to the terminology of claim 1, a converged charging system ("MMSC 102") for offline charging (i.e. "postpaid billing"; "deferred billing") and online charging (i.e. "prepaid billing"; "real-time billing"; "hot billing") in a communication

network (see paragraph [0025] and Fig. 1), the converged charging system comprising

a) an online charging system ("BEM 101") operable to receive online charging information ("prepaid billing events") for a first call from the communication network (see paragraph [0015]), to access a common rating function (i.e. "remote rating engine 106") to determine a rating for the first call (see e.g. paragraphs [0019] and [0026]), and to generate a CDR for the first call based on the online charging information (see e.g. paragraph [0023]);

b) an offline charging system ("BEM 101") operable to receive offline charging information ("postpaid billing events") for a second call from the communication network (see paragraph [0015]), to access the common rating function to determine a rating for the second call (see paragraph [0026]), and to generate a CDR for the second call based on the offline charging information (see paragraph [0019] in conjunction with paragraph [0023]);

c) a common rating function (i.e. "remote rating engine 106") accessible to the online and offline charging system that is operable to determine ratings for online and offline calls occurring in the communication network (see paragraph [0026]);

d) a common charging gateway function (i.e. "CDR store 104") operable to receive CDRs from the online and offline charging system, and to buffer the CDRs (see paragraphs [0017] and [0023]).

3.2.3 Hence, the difference between the subject-matter of claim 1 and the disclosure of D1 is seen to be that the online and offline charging systems are further operable to generate rated CDRs for the first and second call based on the online and offline charging

information and the rating for the first and second call, respectively.

Therefore, the subject-matter of claim 1 of this request is considered novel over the cited prior art (Article 54 EPC).

3.2.4 However, the board takes the view that generating and processing rated CDRs (rather than conventional CDRs) depends merely on the underlying administrative charging policies rather than on technical purposes or constraints. Therefore, no technical effect which is purposively used in the solution of a technical problem can be derived from this distinguishing feature.

3.2.5 The appellant argued that claim 1 of this request corresponded to an improvement over conventional 3GPP charging architectures in that it eliminated the need for the rating function to be located in a separate billing system of such an architecture by providing a common rating function on the side of the online and offline charging systems instead.

The board notes that using a common rating function which is supposed to be accessible by both online and offline charging systems is known from D1 (see e.g. paragraph [0026]: "... Remote rating engine 106 is used for both real-time and deferred event processing ...") and that thus the problem of avoiding the need for the rating function to be placed elsewhere (e.g. in a billing system) is already solved by the system of D1. Only generating rated CDRs for both online and offline charging is not directly and unambiguously disclosed in D1. In this context, however, the use of a conventional 3GPP charging architecture, as pointed out by the appellant, could be one possible administrative

charging policy (cf. point 3.2.4 above), making the creation and processing of rated CDRs for both online and offline charging necessary. Therefore, the above distinguishing feature cannot contribute to an inventive step with regard to claim 1.

3.2.6 The above reasoning also applies to the corresponding method claim 6.

3.2.7 In view of the above, the subject-matter of claims 1 and 6 of this request does not involve an inventive step in view of D1.

3.3 In conclusion, this request is not allowable under Article 56 EPC.

4. FIRST AUXILIARY REQUEST

This request differs from the main request basically in that feature d) of claim 1, apart from minor deletions, now specifies that

d') the common charging gateway function is operable to receive the rated CDRs for the first and second calls (emphasis added),

while the subject-matter of independent claim 6 as amended corresponds to that of claim 1.

This amendment is, in particular, based on Fig. 5 (cf. steps 508 and 516) of the application as filed.

4.1 Article 84 EPC

The observations concerning the main request set out in point 3.1 above apply *mutatis mutandis* to independent claims 1 and 6 of this request. Hence, the board concludes that claims 1 and 6 of this request meet the

requirements of Article 84 EPC.

4.2 Article 52(1) EPC: Novelty and inventive step

The feature analysis and reasoning with respect to the main request set out in point 3.2 above apply *mutatis mutandis* to claims 1 and 6 of this request. Consequently, the subject-matter of claims 1 and 6 of this request is also novel but does not involve an inventive step.

4.3 In conclusion, this request is not allowable under Article 56 EPC either.

5. SECOND AUXILIARY REQUEST

This request differs from the first auxiliary request basically in that feature b) of claim 1 now also specifies that

b') one of the offline or online charging system is operable to access the common rating function and to generate a rated CDR for the second call (emphasis added),

while the subject-matter of independent claim 6 corresponds to that of claim 1.

This amendment is, in particular, supported by the disclosure of page 8, lines 19-20 of the application as filed.

5.1 Article 84 EPC

The observations concerning the main request set out in point 3.1 above apply *mutatis mutandis* to independent claims 1 and 6 of this request. Hence, the board holds that claims 1 and 6 of this request meet the

requirements of Article 84 EPC.

5.2 Article 52(1) EPC: Novelty and inventive step

The feature analysis and reasoning with respect to the main request set out in point 3.2 above apply *mutatis mutandis* to claims 1 and 6 of this request. Therefore, the subject-matter of claims 1 and 6 of this request is also novel but does not involve an inventive step.

5.3 In conclusion, this request is not allowable under Article 56 EPC either.

6. FURTHER AUXILIARY REQUEST

This request differs from the main request essentially in that claim 1 further specifies that

e) the offline charging system is operable to generate an unrated CDR for the second call and to transmit said unrated CDR to the common charging gateway function,

f) the common charging gateway function is operable to transmit said unrated CDR to the online charging system,

g) the online charging system is operable to access its rating function, to generate a rated CDR based on the received unrated CDR for the second call, and to transmit said rated CDR to the common charging gateway function (emphasis added),

while the subject-matter of independent claim 6 corresponds to that of claim 1.

The above amendments are supported by page 9, line 10 to page 12, line 19 and Fig. 6 of the application as filed.

6.1 Admission into the proceedings

The board decides not to admit this request into the appeal proceedings under Articles 12(4) and 13(1) RPBA, for the following reasons:

6.1.1 This request was submitted in response to the summons to oral proceedings before the board (cf. point IV above), i.e. at a relatively late stage of the procedure. The claims of this request relate to an embodiment (i.e. "another exemplary embodiment"; cf. page 9, line 10 to page 12, line 19 and Fig. 6) which had never been examined or discussed before in the first-instance proceedings.

6.1.2 The request therefore comprises substantial amendments to the claims, taken from the original description, which diverge from the requests and facts on file. It thus shifts the focus to a different subject-matter (i.e. using a charging gateway function that feeds an unrated CDR of the second call for an offline call back through the online charging system to be rated by the rating function of the online charging system rather than by a common rating function; cf. appellant's reply letter dated 7 February 2013, page 5, first paragraph) and a different technical problem to be solved (i.e. rated online and offline charging in the absence of any rating function at the offline charging system) which had not been addressed in the first-instance proceedings, and therefore adds complexity to the case. Consequently, this request cannot be objectively considered as an adequate attempt at this stage of the proceedings to overcome the outstanding objections raised so far. Nor could it be discussed with the appellant at the scheduled oral proceedings before the

board.

6.1.3 Admitting this request into the appeal proceedings at such a late stage would therefore make further investigations, an additional search and/or a remittal to the department of first instance necessary. That however would run counter to the principle of procedural economy.

6.2 In view of the above, the board decides to exercise its discretionary power not to admit the request into the appeal proceedings under Articles 12(4) and 13(1) RPBA.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chair:

K. Götz A. Ritzka

Decision electronically authenticated