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**Datasheet for the decision
of 25 September 2019**

Case Number: T 2134/15 - 3.5.03

Application Number: 10012958.4

Publication Number: 2306757

IPC: H04W72/00

Language of the proceedings: EN

Title of invention:

Method and apparatus of multicast control channel acquisition
in wireless communication system

Patent Proprietor:

Innovative Sonic Corporation

Opponent:

Telefonaktiebolaget L M Ericsson (publ)

Headword:

Multicast control channel acquisition/INNOVATIVE SONIC

Relevant legal provisions:

EPC Art. 56

RPBA Art. 12(2), 12(4)

Keyword:

Inventive step (no) - first auxiliary request

Admissibility (no) - second to fourth auxiliary requests (no substantiation)

Main request withdrawn (proprietor's appeal withdrawn)

Decisions cited:

Catchword:



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Case Number: T 2134/15 - 3.5.03

D E C I S I O N
of Technical Board of Appeal 3.5.03
of 25 September 2019

Respondent: Innovative Sonic Corporation
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Decision under appeal: **Interlocutory decision of the Opposition**
Division of the European Patent Office posted on
31 August 2015 concerning maintenance of the
European Patent No. 2306757 in amended form.

Composition of the Board:

Chairman F. van der Voort
Members: T. Snell
R. Winkelhofer

Summary of Facts and Submissions

I. This case concerns appeals filed by both the proprietor and the opponent against the decision of the opposition division which held that the patent as amended in accordance with the claims of auxiliary request 1 met the requirements of the EPC. Inter alia, the opposition division held that the subject-matter of claim 1 of this request involved an inventive step starting out from document A7 in combination with document A9:

A7: Document R2-093988, "Notification mechanism for eMBMS", 3GPP TSG-RAN WG2 Meeting #66bis, 29th June - 3rd July 2009, Los Angeles, USA, Source: CMCC, Alcatel-Lucent Shanghai Bell, Alcatel-Lucent;

A9: Document R2-073442, "MCCH Scheduling and UE Duty Cycle", 3GPP TSG-RAN WG2 #59, 20-24 August 2007, Athens, Greece, Source: Qualcomm Europe.

II. The proprietor in the meantime has withdrawn its appeal, and therefore has the party status of respondent.

III. The opponent (henceforth, "appellant") requests that the decision under appeal be set aside and that the patent be revoked.

IV. The respondent initially requested with its appeal, as a main request, that the decision under appeal be set aside and that the patent be maintained as granted (i.e., that the opposition be rejected). As the proprietor has withdrawn its appeal, the main request is no longer pending.

In response to the opponent's appeal, the respondent implicitly requested that the opponent's appeal be dismissed, i.e. that the decision of the opposition division be upheld (maintenance in amended form in accordance with auxiliary request 1). In the alternative, the respondent requested that the patent be maintained in amended form on the basis of the claims of one of auxiliary requests 1 to 3 as filed on 21 July 2014. These requests are renumbered by the board as auxiliary requests 2 to 4.

V. Both parties initially, on a conditional basis, requested oral proceedings. In a communication accompanying a summons to oral proceedings, the board gave a preliminary opinion, inter alia, that the subject-matter of claim 1 of auxiliary request 1 did not involve an inventive step in view of the combination of documents A7 and A9, and indicated that it doubted that auxiliary requests 2 to 4 were admissible. With the subsequent withdrawal of its appeal, the respondent explicitly also withdrew the request for oral proceedings, and announced that it would not attend them. In view of the board's preliminary opinion, the oral proceedings were subsequently cancelled and the parties were informed that the proceedings would be continued in writing.

VI. Claim 1 of auxiliary request 1 reads as follows:

"A method for Multicast Control Channel, named MCCH hereinafter, acquisition in a User Equipment, named UE hereinafter, of a wireless communication system, the method comprising:

receiving Multimedia Broadcast Multicast Service, named MBMS hereinafter, services (402);

acquiring MCCH messages corresponding to MBMS Single Frequency Network, named MBSFN hereinafter, areas in which the UE is receiving the MBMS services at each modification period of the respective MCCH, wherein each MBSFN area has one MCCH; and

expressing interest in reception of a new MBMS service (404);

characterized by deciding whether to monitor an MCCH notification according to whether the MBSFN area which broadcasts the new MBMS service is among the MBSFN areas in which the UE is receiving the MBMS services (406); and

not monitoring the MCCH notification if the MBSFN area which broadcasts the new MBMS service is among the MBSFN areas in which the UE is receiving the MBMS services (406)."

- VII. In view of the board's decision as reasoned below, it is not necessary to reproduce any claims of auxiliary requests 2 to 4.

Reasons for the Decision

1. *Auxiliary request 1 - claim 1 - inventive step*
- 1.1 The patent relates to Multimedia Broadcast Multicast Service (MBMS) and in particular to a method of acquiring the Multicast Control Channel (MCCH) in a mobile user equipment (hereinafter referred to as UE). As set out in the description of the patent (cf. paragraph [0006], in LTE release 9, the MCCH lists all the MBMS services with ongoing sessions and is

transmitted at each repetition period. An MCCH stays the same for the duration of a modification period, which is longer than a repetition period. A notification mechanism is used to announce changes of MCCH due to Session Start. This "MCCH notification" (a term used in the claims) is transmitted on a physical downlink control channel, i.e. is a separate signal to the MCCH.

- 1.2 The patent further relates to MBMS Single Frequency Networks (MBSFN). Each MBSFN covers an area ("MBSFN area") covering several cells. In paragraph [0006] of the patent, it is stated that in general, an MBSFN area has an (i.e. one) MCCH. However, when an eNB (i.e. a base station) is covered by multiple MBSFNs, there may be multiple MCCHs. It is also stated that one MBSFN area may have multiple MCCHs.
- 1.3 The patent broadly aims to reduce power consumption of the UE when acquiring a changed MCCH due to Session Start in a multi-MBSFN environment (cf. the discussion in paragraph [0008] of the patent).
- 1.4 A7 is adopted as the closest prior art document. A7 describes a method of MCCH acquisition applicable to a single MBSFN area (cf. page 3, lines 8-9; "the MBSFN area"). A7 aims broadly to solve the closely-related problem of excessive UE power consumption caused by monitoring the MCCH at every modification period boundary (cf. page 1, section 2.1, lines 15-19).
- 1.5 Using the wording of claim 1, document A7 discloses a method for Multicast Control Channel (MCCH) acquisition in a User Equipment (UE) of a wireless communication system, the method comprising:

receiving Multimedia Broadcast Multicast Service (MBMS) services (cf. page 1, section 2.1, 1st paragraph);

acquiring MCCH messages corresponding to an MBMS Single Frequency Network (MBSFN) area in which the UE is receiving the MBMS services at each modification period of the respective MCCH, wherein the MBSFN area has one MCCH (cf. page 2, section 2.2, lines 9-19, "The UEs receiving an eMBMS service will read MCCH periodically"; lines 19-21, ".. UE can discard the repeated MCCH during a modification period");

expressing interest in reception of a new MBMS service (see point 1.6 below);

deciding whether to monitor an MCCH notification according to whether the MBSFN area already broadcasts an MBMS service to the UE (see point 1.7 below); and

not monitoring the MCCH notification if the MBSFN area already broadcasts an MBMS service to the UE (idem).

- 1.6 With respect to the claimed feature "expressing interest in reception of a new MBMS service", it appears that it would be necessary to provide a mechanism for informing the UE of services available within the various MBSFNs in order that it is able to "express interest". However, this must also be the case for the single MBSFN in the context of A7, e.g. when the UE is not yet receiving a service. Consequently, this feature, at least in the context of a single MBSFN and including the additional aspect of determining which services are available, is regarded as implicitly disclosed by A7, or at least as not relevant to inventive step.

- 1.7 In accordance with A7, if a user of a UE were interested in a new service (e.g. a new streaming channel) and the UE is not currently receiving a service, the UE would monitor the "notification", which is an MCCH notification within the meaning of the patent. However, if the UE is currently receiving a service, it would monitor periodically the MCCH, i.e. not monitor the MCCH notification (cf. page 2, section 2.2, lines 9-22, "Option 1").
- 1.8 The subject-matter of claim 1 differs from the disclosure of A7 in that there are [a plurality of] MBSFN areas, wherein each MBSFN area has one MCCH, and in that the deciding step is defined to be taken "according to whether the MBSFN area which broadcasts the new MBMS service is among the MBSFN areas in which the UE is receiving the MBMS services". In that case, in accordance with claim 1, the MCCH notification is not monitored.
- 1.9 The problem to be solved starting out from A7 can be seen as to adapt the method of A7 when there are two or more MBSFNs from which the UE can receive MBMS services.
- 1.10 With respect to multiple MBSFN areas, it can be regarded as implicit that not all MBSFN areas are intended to offer the same services, i.e. that a UE may be interested in receiving a service that is only available within a particular MBSFN area. However, point 1.6 above applies here, mutatis mutandis. In other words, how the UE obtains information about available services within the various MBSFNs does not contribute to inventive step.

- 1.11 The problem itself does not involve an inventive step, since at the priority date it was contemplated to use multiple MBSFN areas covering a cell (cf. paragraph [0006]). The respondent has not disputed this point.
- 1.12 In seeking a solution to this problem, the skilled person would be aware of document A9, which concerns the management of MCCH where a cell is covered by more than one MBSFN.

A9 discloses the principle, as a preferred embodiment, that multiple MBSFN areas should operate independently, i.e. each with its own MCCH (cf. section 2.1, 2nd paragraph). It is also clear from A9 that different MBSFNs offer different services (cf. page 1, last two lines).

When the skilled person applies the principle of independent MCCHs to A7, a UE interested in a new MBMS service offered by a particular MBSFN from which a service is already being received would not monitor the notification of the MBSFN concerned, but would instead monitor the MCCH of that MBSFN periodically, since the MBSFN area which broadcasts the new service is the same MBSFN area in which the UE is already receiving an MBMS service. Further, this MBSFN area would then inherently be among the MBSFN areas in which the UE would be receiving the MBMS services.

Hence, the skilled person would arrive without inventive skill at the subject-matter of claim 1 of auxiliary request 1.

- 1.13 The respondent and the opposition division considered that the step "deciding whether to monitor an MCCH notification according to whether the MBSFN area which

broadcasts the new MBMS service is among the MBSFN areas in which the UE is receiving the MBMS services" consists of two sub-steps which are neither disclosed nor rendered obvious by the prior art documents:

(i) determining the MBSFN area which broadcasts the new MBMS service; and

(ii) comparing whether this area is among the MBSFN areas in which the UE is receiving the services.

1.14 The board does not find this argument convincing for the following reasons:

Re (i): As already stated (see point 1.6 above), even if it is the case that, in order to carry out the method of claim 1, apparently the UE has to be given information regarding the services offered by the different networks so that it can determine from which MBSFN to receive the service of interest, no such feature is explicitly included in claim 1. Such a speculative feature of unknown scope cannot be taken into account when examining for inventive step. That notwithstanding, a method resulting from the combination of A7 and A9 would obviously also have to include a step of determining, or being informed of, the network which broadcasts the new service (cf. A9, page 1, last two lines).

Re (ii): When combining A7 and A9, the UE would determine whether the new service will be broadcast on a transport channel already received by the UE, i.e. determine whether the service is broadcast by one of the networks from which a service is already received. This is merely another way of expressing the condition "according to whether the MBSFN area which broadcasts

the new MBMS service is among the MBSFN areas in which the UE is receiving the services". An explicit comparing step is not required by claim 1.

1.15 The respondent did not discuss the content of document A9 in any of its written submissions, including, in particular, its reply to the opponent's appeal.

1.16 In view of the above, the subject-matter of claim 1 does not involve an inventive step (Articles 52(1) and 56 EPC).

2. *Auxiliary requests 2 to 4 (submitted as auxiliary requests 1 to 3 on 21 July 2014)*

2.1 Article 12(2) RPBA stipulates that the reply shall contain a party's complete case and shall set out clearly and concisely the reasons why it is requested that the decision under appeal be amended, and that it should specify expressly all the facts, arguments and evidence relied on.

2.2 The respondent did not submit in its reply to the opponent's appeal any explicit substantiation explaining how and why these requests overcome objections raised either by the opposition division in the impugned decision or by the appellant. Instead, it merely referred to a submission made during the opposition proceedings. However, the mere reference to a submission made during the opposition proceedings does not replace such a substantiation. It should not be incumbent on the board to have to identify to what extent arguments put forward during the first instance proceedings before the decision was taken are still relevant to the present appeal proceedings.

- 2.3 Furthermore, the amendments to claim 1 of each of these requests prima facie do not appear to have any bearing on the issue of inventive step with respect to documents A7 and A9 discussed above.
- 2.4 The respondent did not file any remarks in response to similar comments concerning the question of admissibility as made by the board in its communication accompanying the summons to oral proceedings.
- 2.5 In exercising the board's discretion pursuant to Article 12(4) RPBA, auxiliary requests 2 to 4 are not admitted into the appeal proceedings.

3. *Conclusion*

As there is no allowable request, the decision under appeal must be set aside and the patent revoked.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The patent is revoked.

The Registrar:

The Chairman:



G. Rauh

F. van der Voort

Decision electronically authenticated