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**Datasheet for the decision
of 8 February 2010**

Case Number: T 1068/08 - 3.5.03

Application Number: 02720027.8

Publication Number: 1380157

IPC: H04M 3/56

Language of the proceedings: EN

Title of invention:

Control of a wireless conference telephone system

Applicant:

IP Holding Oy

Opponent:

-

Headword:

Bluetooth audio system

Relevant legal provisions:

EPC Art. 84, 56

Relevant legal provisions (EPC 1973):

-

Keyword:

"Clarity (all requests - no)"

"Inventive step (all requests - no)"

Decisions cited:

-

Catchword:

-



Case Number: T 1068/08 - 3.5.03

D E C I S I O N
of the Technical Board of Appeal 3.5.03
of 8 February 2010

Appellant: IP Holding Oy
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 2 January 2008
refusing European application No. 02720027.8
pursuant to Article 97(1) EPC 1973.

Composition of the Board:

Chairman: A. S. Clelland
Members: B. Noll
M.-B. Tardo-Dino

Summary of Facts and Submissions

- I. This appeal is against the decision of the examining division posted on 2 January 2008 to refuse European patent application No. 02720027.8 on the ground that each independent claim of a main and three auxiliary requests lacked an inventive step (Articles 52(1) and 56 EPC).
- II. The applicant appealed this decision and requested that it be set aside and a patent be granted.
- III. With the statement of grounds of appeal received on 14 April 2008 the appellant filed independent claims of auxiliary requests 4 to 7. The appellant also requested accelerated processing of the appeal, referring to the Guidelines, E-VIII, 5. Oral proceedings were conditionally requested.
- IV. With a communication dated 1 December 2008 the board expressed doubts that the alleged invention was sufficiently disclosed in the application (Article 83 EPC). The board also expressed its preliminary view on clarity (Article 84 EPC) and inventive step (Article 56 EPC). Inter alia, the board referred to the following document:

D4: WO 01/20572 A1
- V. With a letter received on 1 April 2009, amended independent claims of auxiliary requests 6 and 7 and new independent claims of additional auxiliary requests 8 to 14 were filed.

- VI. The board issued a summons to oral proceedings and in the communication accompanying the summons additionally referred to portions of the "Specification of the Bluetooth System", Version 1.1 (22. February 2001).
- VII. The appellant responded to the summons with a letter received on 14 October 2009. With a further letter received on 10 November 2009 the appellant submitted amendments to claims 1 and 6 of the main request which constituted further auxiliary requests 15 and 16.
- VIII. In the course of the oral proceedings held on 13 November 2009 the appellant withdrew all existing requests and filed claim 1 of a new main, a first and a second auxiliary request. The appellant further requested, as an alternative, that the case be remitted to the department of first instance for further prosecution.
- IX. Claim 1 of the main request reads as follows:
- "Wireless conference telephone system or a corresponding audio system to establish an ad hoc conference call system and a personal speaker system, the system comprising of at least one audio unit (B1 - B3) having at least one microphone and/or at least one speaker (SPK1 - SPK4), an audio control unit (UI1), and a power source,
- at least one signal source unit (C1), and
- at least one operation control unit for the user to control the operation of the audio unit or units, that [sic] the operation control unit is a mobile phone [sic] the operation control unit is a wireless control unit coupled to the audio unit or units over Bluetooth

radio standard, capable of forming said connection, and the protocol for the communication of the operation control unit with the audio unit or units is a wireless Bluetooth [sic],

that [sic] the operation control unit has a user interface for the user to control the operation of the system over a user interface operating over the wireless Bluetooth [sic],

characterized in

that the audio units are standalone conference audio units comprising a microphone, at least one speaker, a Bluetooth unit, a control unit and an internal battery, and

that the audio unit comprises: a Bluetooth module (BT1), having a radio frequency unit (RF1), a processor unit (μ P1) and a memory (M1), the memory having a control server with a user interface for the wireless control unit operating in the memory, and

that the system is adapted so that the user can manually change the master/slave status in the conference audio unit

[sic] that the user can establish a piconet consisting of the operation control unit and the audio unit or units by making first a connection between the operation control unit and the master conference audio unit which in turn can connect the other audio units operating as slaves to the piconet and

that the signal source is adapted to operate as an operation control unit (C1) or an audio unit in order to connect the conference audio unit or units to an ongoing audio call.

Claim 1 according to the first auxiliary request adds to claim 1 of the main request the feature "the audio

unit further comprising a MP3 decoder or a radio tuner and a codec".

Claim 1 according to the second auxiliary request adds to claim 1 of the main request the feature "the audio unit further comprising audio units as stereo speakers, whereby the audio stream is adapted to transfer [sic] to the speakers in the conference audio units".

- X. After deliberation, at the end of the oral proceedings the chairman closed the debate and announced that the decision would be given in writing.

Reasons for the Decision

1. *The request for accelerated processing*

The board issued a first communication within six months of the commencement of proceedings before the board of appeal. The board therefore considers that the appellant's request for accelerated processing has been met.

2. *The disclosure of the application*

The board considers it necessary to address the disclosure of the application in detail since in the course of the appeal procedure there was a divergence of views between the board and the appellant as to what was actually disclosed.

The description starts at page 1 with a discussion of two pieces of prior art of which the first is said to disclose a wireless hands-free conference telephone system and the second a telephone conference system for mobile phone users in which "a data terminal with an Internet connection can be used for setting up a conference and for control and supervision". At page 2 it is further stated that it was known to use a mobile phone as a conference telephone although "the acoustic properties of the microphones and speakers in mobile phones are generally quite insufficient for such applications". This prior art description is followed by two statements of objects of the invention, namely "to provide an improved control method of controlling a wireless conference telephone system wherein the user can control several functions in the wireless conference telephone system by using a mobile phone or a corresponding Personal Trusted Device (PTD)" and "to provide a new wireless conference telephone system wherein the system comprises one or several conference audio units having high quality acoustic properties and capable of having contact with other similar audio units and further having several additional operations, such as speaker unit, radio tuner, MP3 player etc."

Pages 2 and 3 explain some properties of a Bluetooth system and the use of a wireless access protocol (WAP) for device control. In the fifth paragraph at page 3 it is stated that a wireless audio unit according to the invention can also be used as a motion or a fire sensor. Page 4 of the description outlines the system shown in figure 2. The last two paragraphs on page 4 refer to a list of parameters of the audio unit which can be controlled by the control unit and mention that the

user "can change audio routing to the conference audio unit". The first paragraph at page 5 adds that the user can establish a piconet "if there are several Bluetooth audio units within the Bluetooth range" and that "In this way the user can for example connect the conference units within the Bluetooth range to an ongoing audio call". Also in this paragraph an expression "master conference audio unit" is introduced without however defining the meaning of this expression. The five subsequent paragraphs at pages 5 and 6 contain a description of the blocks of the audio unit shown in figure 2, whilst the passage from the second paragraph to the last paragraph on page 6 explains how the audio unit is controlled by a user with a control unit using an WAP browser.

Accordingly, the board understands that the invention disclosed in the application relates to an audio unit controlled by a mobile terminal. The audio unit reproduces a telephone signal received at the mobile terminal and forwarded to the audio unit as a wireless signal with a quality better than the mobile terminal could provide, and transmits speech captured by a microphone as a wireless signal towards the mobile terminal. The audio unit may include a single or several audio units each separately controllable by the mobile terminal. However, and contrary to the appellant's opinion, the disclosed invention is not a conference telephone system in the conventional meaning of this expression; this would have required an enabling disclosure of how to bridge the audio signals from three or more participants at different locations such that each participant receives each audio signal

from each other participant. There is no such disclosure in the application.

In the course of the oral proceedings the appellant argued that a system which picks up the speech of one or more persons in a room for transmission over a telephone line to a remote person or group of persons, and makes a speech signal received from the telephone line audible to all persons in the room is, per definition, a conference telephone system. In the board's view, however, the system as understood by the appellant cannot be considered as a conference system in the conventional sense since, as pointed out above, there is no disclosure of how the calls of all participants can be bridged. The mere fact that the mobile telephone terminal may be used as an end device in a telephone conference call held over the telephone network and that one or more audio units can be connected to the mobile telephone terminal does not qualify the combination of audio units and the mobile telephone terminal as a telephone conference system.

3. *Clarity (Article 84 EPC) - all requests*

- 3.1 Bearing in mind the understanding of the application as explained at point 2 above, claim 1 of each request is rendered unclear by the reference to "a wireless conference telephone system [...] to establish an ad hoc conference call system" since no such system is described. The reference to "a wireless conference telephone system" is therefore not considered limitative.

3.2 Regarding the alternative "or an audio unit" in the last feature of claim 1 according to the main request the originally filed application contains no teaching as to how a signal source unit which is adapted to operate as an audio unit can serve to connect other audio units to an ongoing audio call. Since this alternative appears in claim 1 of each request, each of these claims fails to meet the requirement of Article 84 EPC as to clarity.

Nevertheless, the board considers it appropriate to address the question of inventive step, interpreting claim 1 in the light of the analysis at point 2 above.

4. *Claim 1 of the main request - inventive step (Article 56 EPC)*

4.1 The board considers D4 as the single most relevant prior art document since it is, like the present application, concerned with remotely controlling electronic devices by means of a mobile telephone through a Bluetooth communication link. Specifically, the mobile telephone station 5 shown in figure 1 of D4 is adapted to act as a control unit for the electronic devices 2, 3 and 4 by establishing a local network 9 according to the Bluetooth specification (cf. page 6 lines 19 to 34), control being by means of a wireless access protocol (cf. the paragraph bridging pages 8 and 9). Each of the controllable electronic devices is configured as a WAP server storing files with WAP pages for controlling the device, the control unit acting as a WAP client configured to automatically open a WAP browser and to request from the controlled device a WAP page which both allows the user to navigate through a

control menu and to request, if necessary, additional control pages for changing the settings of the device by selecting appropriate commands on the control page (cf. page 8 line 22 to page 9 line 20 and figure 7). The control unit is capable of controlling several electronic devices simultaneously by offering the user the choice of which device is to be controlled (cf. page 9 line 31 to page 10 line 3). It is implicit that the control unit together with the electronic devices in contact with it constitute a piconet according to the known Bluetooth specification.

4.2 In addition to the features identified at point 4.1 above as known from D4 the system according to claim 1 includes the following features:

(a) the system includes at least one stand-alone audio unit having a microphone, a speaker, a control unit, a battery as a power source, an audio unit comprising a Bluetooth unit having a radio frequency unit, a microprocessor unit and a memory;

(b) the signal source unit included in the system is adapted as an operation control unit to connect the audio unit or units to an ongoing audio call; and

(c) the system is adapted so that the user can manually change the master / slave status in the conference audio unit.

4.3 In the board's view, the additional features (a) to (c) do not interact in such a manner as to provide a single common technical effect: whilst features (a) and (b) in combination serve to improve the quality of the acoustic signal for a user participating in a telephone call over a mobile telephone, feature (c) concerns a

change of the status of a Bluetooth unit at the data link level. Regarding feature (c), the words "master" and "slave" have a specific meaning in Bluetooth: the device which initiates a Bluetooth link by paging another Bluetooth device is denoted as the master and the paged device as the slave (cf. page 8 lines 25 to 27 of D4). Thus, in the board's view, feature (c) solely serves to provide more flexibility as to which device in a Bluetooth piconet is permitted to contact a further device for accessing the piconet, but this has no bearing on the quality of the acoustic signal.

Thus, the board identifies from the features distinguishing claim 1 from the D4 system two mutually independent sub-problems, the first being to improve the quality of the acoustic signal for a user having a telephone conversation over a mobile telephone and the second to have more flexibility for inviting an additional device to join the piconet.

- 4.4 Regarding the first sub-problem D4 mentions at the last paragraph on page 1 that it was known to connect a hands-free headset as a wireless peripheral device to a mobile terminal. The person skilled in the art would appreciate from this passage that it was at the claimed priority date known to add a separate audio unit to a mobile terminal in order to improve the audio quality of the system. Such an audio unit requires a microphone, a speaker and a battery or another power supply, these features being inherently necessary for the audio unit to function. The person skilled in the art would also provide a memory and a processor to the audio unit for storing and accessing the access file by means of which the user exercises control over the audio unit as

suggested in D4. Features (a) and (b) mentioned above are therefore obvious for the person skilled in the art.

Regarding the second sub-problem mentioned at point 4.3, given that a Bluetooth device seeking a connection with another Bluetooth device must be, in Bluetooth terminology, the master, the person skilled in the art could be expected to foresee the possibility for the user to initiate connection with a further Bluetooth device, which would require that the master or slave status of the device be changed. Feature (c) is therefore obvious for the skilled person.

The board concludes that a person skilled in the art, starting out from D4 as the closest prior art and faced with the sub-problems identified at point 4.3 above would, taking into account their general knowledge of Bluetooth, have arrived at the system according to claim 1 without exercising inventive skill.

4.5 The appellant argued that although D4 disclosed a control unit for remotely controlling electronic devices such as a television set or a combination of a tuner, amplifier and CD player, D4 did not consider any issues regarding an additional audio unit which could be connected to an ongoing audio call under the control of the mobile telephone, the audio signal being forwarded from the mobile telephone to the audio unit through a Bluetooth connection.

4.6 The board is not convinced by these arguments. Whether a single or multiple Bluetooth audio units are connected to a mobile telephone terminal is at the free disposal of the user. No invention can be seen in connecting a further audio unit during an ongoing call;

connecting the audio unit either during a call or before it starts is at the free choice of the user. Regarding user control of the further audio device the skilled person would implement this control in the same way as for other Bluetooth units, i.e. by storing a WAP page having control functions in the device and accessing the WAP page from the mobile terminal.

4.7 In conclusion, the system according to claim 1 of the main request does not involve an inventive step (Article 56 EPC).

5. *Claim 1 of the first auxiliary request - inventive step*

In the board's view, the additional features of an MP3 decoder or a radio tuner and a codec added in claim 1 of the first auxiliary request serve for extending the functionality of the audio unit. It is known to implement similar functionalities in Bluetooth devices (cf. page 8 lines 5 to 8 of D4) and merely adding these specific functionalities to an existing Bluetooth audio unit is a matter of non-inventive choice on the part of the skilled person and does not involve an inventive step (Article 56 EPC).

6. *Claim 1 of the second auxiliary request - inventive step*

The board considers that the further feature of the audio unit being provided with stereo speakers is merely a minor extension of the functionality of the audio unit. The board moreover considers the additional feature of the audio stream being "adapted to transfer to the speakers" as having no clear limitative effect

since any audio connection to the speakers of an audio unit serves this purpose. For this reason, together with the reasons given for claim 1 of the first auxiliary request, claim 1 according to the second auxiliary request does not involve an inventive step (Article 56 EPC).

7. *Conclusion*

Since the subject-matter of claim 1 of the main, the first and the second auxiliary requests fails to meet the requirements of Article 56 EPC the board sees no reason to remit the case to the department of first instance. The appeal is accordingly dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

D. Magliano

A. S. Clelland