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Datasheet for the decision of 26 May 2010

Case Number: T 0981/06 - 3.5.05

Application Number: 00989280.3

Publication Number: 1247229

IPC: G06F 19/00

Language of the proceedings: EN

Title of invention:
Method and apparatus for patient monitoring with wireless Internet connectivity

Applicant:
Koninklijke Philips Electronics N.V.

Opponent:
-

Headword:
Patient monitoring system using wireless Internet/PHILIPS

Relevant legal provisions:
EPC Art. 56
EPC 1973 Art. 106, 107, 108

Keyword:
"Inventive step (main request - yes after amendments)"

Decisions cited:
-

Catchword:
-

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Case Number: T 0981/06 - 3.5.05

D E C I S I O N
of the Technical Board of Appeal 3.5.05
of 26 May 2010

Appellant: Koninklijke Philips Electronics N.V.
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Decision under appeal: **Decision of the Examining Division of the European Patent Office posted 20 December 2005 refusing European application No. 00989280.3 pursuant to Article 97(1) EPC 1973.**

Composition of the Board:

Chairman: A. Ritzka
Members: P. Cretaine
F. Blumer

Summary of Facts and Submissions

I. This appeal is against the decision of the examining division announced in oral proceedings held on 13 December 2005, with reasons dispatched on 20 December 2005, refusing European Patent Application No. 00 989 280.3 for the reason that the independent claims of each of a main and auxiliary request did not involve an inventive step according to Article 56 EPC 1973 having regard to the disclosure of

D1: WO 98/24358.

II. The notice of appeal was submitted on 20 February 2006. The appeal fee was paid on the same day. It was requested that the decision to refuse be cancelled. With the statement setting out the grounds of appeal dated and submitted 20 April 2006, the appellant (applicant) filed claims of a main request and first to fourth auxiliary requests and requested the grant of a patent on the basis of the main request, or, subsidiarily, on the basis of any of the first to fourth auxiliary requests. A precautionary request for oral proceedings was made.

III. In a communication accompanying a summons to oral proceedings to be held on 26 May 2010, the board gave a preliminary opinion that the claimed priority was not valid and that the subject-matter of claim 1 according to each request did not involve an inventive step when starting from D1 as closest prior art and taking into account the disclosure of the following prior art documents:

D2: US 5 772 586

D3: WO 99/41682

D4: US 5 357 427

The board further gave its reasons that the appellant's arguments were not convincing.

IV. Oral proceedings were held on 26 May 2010 in the course of which the appellant presented arguments in favour of the validity of the claimed priority and of an inventive step of the main request. The appellant requested that a patent be granted on the basis of the main request. All other requests have been withdrawn. The further documents on which the appeal is based , i.e. the text of the description and the drawings, are as follows:

description	pages 1-3, 5-26	as originally filed,
	pages 4, 4a	as filed with letter of 20 October 2003;
drawings	1/8-8/8	as originally filed.

V. Independent claim 1 of the main request (sole request) reads as follows:

"A wireless health-monitoring system for monitoring a state or condition of a patient, comprising:
a wireless health monitoring apparatus (10) that is linked in a wireless fashion, said apparatus (10) including:
a health monitoring device (11);

an internet-enabled wireless web device (12) that is either an internet-enabled mobile phone, a handheld computer, or a hybrid device of a handheld computer and mobile telephone, the internet-enabled wireless web device (12) including a first communications port having a generic input/output port (164) and a second communications port (60) having a circuit for wireless communications with a network, wherein the internet enabled wireless web device (12) is configured to store a health parameter, the health parameter is corresponding to a state or condition of a patient and determined by a health parameter determining means;
a base wireless device application (70); and
a user interface (68) allowing the user to choose inputs and to generally operate the device,
the wireless health-monitoring system further comprising:
a server application (62), residing on a computer readable medium and disposed on a server (22) in communication with the wireless network, for causing the server (22) to:
receive the determined health parameter (122);
calculate a response based in part on the determined health parameter (126);
and provide the response to the internet-enabled wireless web device (12)."

Reasons for the decision

1. *Admissibility*

The appeal complies with the provisions of Articles 106 to 108 EPC 1973. Therefore it is admissible (see Facts and Submissions, point II).

2. *Priority*

The application claims the priority of US provisional patent application 60/172 486 filed on 17 December 1999. In the communication accompanying the summons to oral proceedings, the board had expressed doubts on the validity of this priority claim since, in particular, the provision of a first and a second, different, communications ports in the Internet-enabled wireless device did not appear to have a basis in the priority document. The appellant has argued that the provision of two different ports, one for coupling to the medical monitoring device and one for coupling to the wireless network, was, at least implicitly, disclosed by the passage on page 3, lines 3 to 7 and by the drawing on page 4 of the priority document.
However, in the board's view, in the present case no decision in that respect is necessary, since there is no intermediate prior art document on file and the assessment of inventive step may be performed independently of the question of validity of priority (see section 3).

3. *Inventive step:*

3.1 *Prior art:*

D1 discloses a wireless health monitoring system comprising a health monitoring device (10, figure 1A) coupled to an Internet-enabled web device (PC 30, figure 1A) and a server (32, figure 1A) coupled to the web device through a wired Internet network. In operation, the monitoring device determines a health parameter of a patient and sends it to the web device (PC 30); the web device (PC 30) sends the health parameter through the Internet to the server, which then calculates a report based on the health parameter and sends it back to the web device through the Internet network (page 4, lines 10-16). A user interface in the web device (PC 30) allows the user to control the health monitoring device (page 10, lines 25-29).

D2 discloses a health monitoring system wherein a health monitoring device placed in the housing of a mobile phone sends measured health parameters to a server through the cellular network.

D3 discloses a health monitoring device wherein health monitoring devices measuring health parameters are connected to a mobile computing device (e.g. a PDA) which collects the health parameters and sends them through a wireless communication network to a server.

It was common ground between the Appellant and the board during the oral proceedings that D1 represents the closest prior art to the subject-matter of claim 1

since it is directed to a similar purpose, the interactive monitoring of a patient by a remote server, and has the most technical features in common with claim 1, i.e. a health monitoring device, an internet-enabled web device and a server.

3.2 Referring to the summary of D1 given in point 3.1 above, the subject-matter of claim 1 is found to differ from the disclosure of D1 in the following respects:

- D1 does not disclose that the Internet-enabled web device is an Internet-enabled mobile telephone, a handheld computer or a hybrid device of a handheld computer and mobile telephone and has a wireless connection to the server;

- D1 does not disclose that the wireless health monitoring apparatus has a base wireless device application and a user interface allowing the user to choose inputs and to generally operate the device.

The technical effect of these differences is that the health monitoring apparatus may be carried by the patient and operated wherever Internet wireless connectivity is possible.

The objective technical problem may thus be regarded to be how to improve the flexibility for the user (patient) of the health monitoring system.

3.3 Starting from D1 as closest prior art and trying to solve the above-mentioned problem, the skilled person would first note that the system of D1 uses the World Wide Web relying on the Internet Protocol as a

universal front end for the health monitoring device (see page 2, lines 26-28). The reason for using the Internet instead of the public telephone system was to avoid standardization problems when the device has to be used worldwide (see page 2, lines 2-8). A main feature of D1 is therefore the use of a workstation (figure 1A, personal computer 30) for converting medical data from a medical device into keycodes that are readable and transportable regardless of the user's country's telephone system. While using a personal computer (PC) connected to the Internet, the single embodiment described in D1 uses the high-resolution display of a PC as a front end of the health monitoring device for both receiving and formatting medical data output from the health monitoring device and for displaying results generated by the server and sent back to the patient's personal computer (see page 7, lines 12-18). Even when other web appliances than a PC are contemplated by D1, it is clear that these appliances must have a high-resolution display (see page 6, lines 6-8 wherein the only specified alternative is a WebTV). Moreover, D1 teaches (see page 10, line 17 to page 11, line 4) to use the PC screen for providing a formatted display of the health monitor output parameters and software buttons for controlling the monitor functions. The small size of the display and buttons of common health monitoring apparatuses can thus be compensated by using the PC display as an enhanced interface.

For these reasons, D1 teaches away from using an Internet-enabled device with a small screen and a low-resolution display.

By trying to improve the flexibility of the health monitoring system of D1, the skilled person may well consider to use a wireless connection between the web device and the server, since the Internet wireless protocol was common knowledge at the claimed priority date (1999) of the present application.

However, in the board's judgement, the skilled person starting from D1 would not replace the personal computer with an internet-enabled mobile phone, a handheld computer or a hybrid device of a handheld computer and mobile telephone for the reason that these devices, in 1999, were all provided with small screens and low-resolution displays. Using such devices would be in contradiction with one of the essential teachings of D1.

3.4 The board also judges that the teachings of the documents D2 and D3 do not prompt the skilled person to modify the closest prior art of D1 to a system according to claim 1.

D2 discloses a health monitoring system using a mobile phone. A portable medical device is placed either inside the mobile phone (see figures 2 and 3 of the preferred embodiment and column 4, lines 54 to 59), or outside the mobile phone (see claim 6 and column 4, lines 59 to 63). Medical data issued by the portable medical device is transmitted to the processing system of the doctor treating the patient by using the short message system (SMS) of the cellular network. However, the system of D2 does not provide reverse transfer of information from the processing system to the medical device and therefore does not support interactive

communication between a server and a health monitoring device as D1 and the invention do. A "prompt" may be delivered to the patient if the measurement falls above/below a certain value, but it is generated by a program stored in the phone rather than by the doctor or the processing system (see column 5, lines 59-65). The only response which is foreseen by D2 is by the doctor calling his patient on the mobile phone (see column 3, lines 33-37). In the board's judgement, the lack of interactivity of D2 would prevent the skilled person from trying to combine D2 with D1. Therefore there is no need to discuss here whether such a combination would result in the subject-matter of claim 1.

D3 discloses a patient data acquisition system comprising a personal digital assistant (PDA) connected to a patient's sensors by wireless links and to an application server by a wired telephone network. The PDA is adapted to collect medical data from the sensors and to send it to the server. The only reverse transfer of information from the server to the PDA occurs during an initial downloading of a medical form used to store the collected data (see page 6, lines 8-12 and page 8, lines 9-12). The lack of interactivity would also in that case prevent the skilled person from a combination of D3 with D1.

3.5 In view of the foregoing, the board concludes that the subject-matter of claim 1 according to the main request involves an inventive step over D1.

3.6 The board therefore judges that it is appropriate to remit the case to the department of the first instance

for grant of a patent on the basis of the amended claims forming the main request (sole request).

Order

For these reasons it is decided that:

- The decision under appeal is set aside.

- The case is remitted to the department of first instance with the order to grant a patent on the basis of the main request (sole request) as filed with the statement setting out the grounds of appeal and a description and figures to be adapted thereto.

The Registrar: The Chair:

K. Götz A. Ritzka