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2006

PATENTS ACT 1977

APPLICANT LG Electronics, Inc.

ISSUE Whether patent application number GB
0324906.7 complies with sections 1(1)(b) and
14(5)

HEARING OFFICER Mrs S E Chalmers

DECISION

Introduction

- 1 The application, entitled "Home network system" was filed on 10 April 2002 claiming priority from a Korean international patent application. It was published on 4 September 2003 as WO 03/073694 and republished on 31 March 2004 as GB 2393620.
- 2 An examination report was issued on 27 August 2004 raising objections to lack of novelty and clarity. Amendments were filed in the course of further correspondence which met the novelty objection but which gave rise to objection under s1(1)(b). The lack of clarity objection was maintained. A hearing was held before me on 12 October 2006 in preparation for which the examiner issued on 23 August 2006 a summary of the outstanding issues based on claim 1 filed on 19 July 2006. Mr Ron Camp of Kilburn & Strode, the applicant's agent, attended as did the case examiner Mr John Cullen. Shortly before the hearing, Mr Camp filed amended claims and outline comments on the amended claims and patentability issues which has eased my task.

The application

- 3 The application describes a home network system which enables networked appliances to be controlled by inputting control commands from a remote control server, network controller or internal PC. In this way, commands from an external PC or communication terminal may be transmitted via a Web or WAP server to the remote server to monitor and control the network appliance.

- 4 Claim 1 filed on 19 July 2006, reads:

A home network system, comprising:
a remote control server for controlling transmitting/received data over a long distance

between a WEB or WAP server connected to an external PC or communication terminal, with a home network;
an internal PC equipped at home; and
a network controller, connected to the internal PC, a network appliance and the remote control server; **the network controller arranged to provide a graphic user interface (GUI) to a browser of the network controller and internal PC at the request of the user**, further arranged to monitor and control the network appliance in accordance with **a user control command input from the browser of the network controller, browser of the internal PC and from the remote control server respectively**, and further arranged to transmit results thereof through the remote control server to the WEB or WAP server to display the results on the browser of the external PC or a display of the communication terminal.

There are 2 appendant claims which relate to details of the network controller.

- 5 Prior to the hearing, the dispute centred around the inventiveness of the first highlighted passage and the clarity of the second highlighted passage.
- 6 On 10 October 2006, Mr Camp filed an amended claim 1 for consideration at the hearing. The amended claim reads:

A home network system, comprising:

a remote control server for controlling transmitting/received data over a long distance between a WEB or WAP server connected to an external PC or communication terminal, with a home network;
an internal PC equipped at home; and
a network controller, connected **by a LAN or a wireless network** to the internal PC, a network appliance and the remote control server; the network controller arranged to provide a graphic user interface (GUI) to a browser of the network controller and internal PC at the request of the user, further arranged to monitor and control the network appliance in accordance with a user control command input **through one of the browser of the network controller, browser of the internal PC and from the remote control server**, and further arranged to transmit results thereof through the remote control server to the WEB or WAP server to display the results on the browser of the external PC or a display of the communication terminal.

At the hearing, the arguments shifted to focus on the inventiveness of the first highlighted passage and the clarity of the second highlighted passage.

The law

- 7 The relevant provisions of sections 1 and 14(5) are:

1.-(1) A patent may be granted only for an invention in respect of which the following conditions are satisfied, that is to say -

- (a)*
- (b) it involves an inventive step;*

14(5) The claim or claims shall -

- (a)*
- (b) be clear and concise;*

Is amended claim 1 allowable?

- 8 I must first of all consider whether amended claim 1 is allowable, that is, is there any added subject matter? Mr Camp argued that the insertion of “by a LAN or a wireless network” in the phrase “a network controller, connected **by a**

LAN or a wireless network to the internal PC ...” restored a feature present in claim 1 as filed. This was supported in the description as filed at page 4 line 2 which referred to “by wire (LAN) or wireless network”. I agree. The other amendment

“... user control command input **through one of** the browser of the network controller, browser of the internal PC and from the remote control server ...”

he explained, was intended to meet the lack of clarity objection by specifying that the user control command was input through the browser of the network controller or the browser of the internal PC or the remote control server. However, I pointed out that the words “and from” cast doubt on this interpretation and it was agreed to substitute the word “or”. This passage now reads:

“... user control command input **through one of** the browser of the network controller, browser of the internal PC **or** ~~and from~~ the remote control server ...”

- 9 I am satisfied that amended claim 1 does not add matter and that the agreed clarification meets the objection under section 14(5). The hearing then continued on the basis of this further amendment and focused on the inventiveness of the claim.

The hearing

- 10 Mr Camp stated that the applicant was not clear on the case he had to answer on the S1(1)(b) objection. Specifically, he noted that no documents had been cited to support the examiner’s assertion that providing a GUI at the user’s request was common general knowledge at the priority date. I pointed out that the argument set out in the examiner’s pre-hearing summary had been raised in at least one previous examination report. If the applicant was uncertain, why had he left it until now to raise this serious issue? Mr Camp explained that the applicant was based in Korea and the delay was due to difficulties in communication, notably the language issues. He did not pursue this issue further at the hearing choosing to focus on other aspects of the claimed invention (as mentioned earlier) and I do not think anything turns on it.
- 11 The closest prior art identified by the examiner is US 2002/0011923 (which I shall refer to as “Cunningham”). This document describes a home network communication system comprising a controller for sending and/or receiving data from home appliances over the household power lines. The controller is also capable of communicating with external networks such as the Internet or over a telephone connection.
- 12 At the hearing, Mr Camp stated that Cunningham was an example of the prior art systems specifically acknowledged in the introduction to the present application. He argued that Cunningham was directed to improving arrangements that communicated over power lines. All the embodiments used power lines as the primary means of establishing communication with the control device or devices. In other words, a connection with the mains was essential. Mr Camp acknowledged that the embodiments also provided for communication with items that were not mains powered and which therefore

had no direct (ie wired) communication with power lines, such items utilizing wireless links as interfaces between the respective items and the power lines. For example, in Figure 1, item 70 provided an interface between items 72, 74, 78 and the power line communication network as set out in paragraph [0029]. However, Mr Camp was at pains to emphasise that Cunningham only taught the use of wireless communications as a means of establishing an interface between battery-powered equipment and the power line communication network. The whole thrust of Cunningham was the use of power lines to communicate between the various features of the network. Hence he argued, the skilled person, presented with Cunningham, would have no incentive to eliminate the power line network altogether and replace the power line with a wireless network or a LAN as specified in amended claim 1A.

- 13 In response, the examiner stated it was his understanding that this type of home power line network was a sub-set of LANs and drew Mr Camp's attention to three further documents to support his contention. These documents were US 6130896 published 10 October 2000 and two journal articles. (However I attach no weight to these articles as they were published after the priority date of the invention.)
- 14 Following an adjournment to allow Mr Camp to review these documents, Mr Camp accepted that US 6130896 demonstrated that power line networks were a type of LAN. He therefore proposed a further amendment to delete the reference to "a LAN or" from the claim to specify the connections were by a wireless network. It was agreed that I should make my decision based on this further amendment. For avoidance of doubt, I set out claim 1 as further amended:

A home network system, comprising:

a remote control server for controlling transmitting/received data over a long distance between a WEB or WAP server connected to an external PC or communication terminal, with a home network;

an internal PC equipped at home; and

a network controller, connected by ~~a LAN or~~ a wireless network to the internal PC, a network appliance and the remote control server; the network controller arranged to provide a graphic user interface (GUI) to a browser of the network controller and internal PC at the request of the user, further arranged to monitor and control the network appliance in accordance with a user control command input through one of the browser of the network controller, browser of the internal PC or ~~and from~~ the remote control server, and further arranged to transmit results thereof through the remote control server to the WEB or WAP server to display the results on the browser of the external PC or a display of the communication terminal.

Does the invention involve an inventive step?

- 15 Adopting the well known structured analysis in the *Windsurfing*¹ judgment, the inventive concept behind the present application appears to be to allow a user to select a device from one of a (a) a controller, (b) a PC located within the home and (c) a communication device external to the home, and use the selected device to monitor and control a networked appliance. The differences I have identified between the invention as defined in claim 1 as further

¹ *Windsurfing International Inc v Tabur Marine (Great Britain) Ltd* [1985] RPC 59

amended and the prior art is that there is no explicit disclosure of (a) a wireless communication network connecting the network controller to the internal PC, a network appliance and the remote control server, and (b) providing the GUI to a browser of the network controller and to the internal PC at the request of the user.

- 16 Would these differences have been obvious to the person skilled in the art of network communications? Cunningham at paragraph [0055] discloses monitoring and controlling by a network controller or console 50, paragraph [0058] discloses monitoring and controlling by an internal PC 59, and paragraphs [0066] and [0067] disclose monitoring and controlling by a remote device. Paragraph [0057] discloses that the console 50 provides a GUI to its touch-screen display. The console has a browser functionality (lines 1-7 of paragraph [0062]) and also provides a GUI to the PC 59 (paragraph [0058]).
- 17 At the hearing, the examiner asserted that it was common general knowledge at the priority date of the application that there were three ways of implementing networks in the home: a dedicated communication line LAN (which is not relevant here), a home power line network (as disclosed in Cunningham) and a wireless LAN. Mr Camp questioned this assertion in the absence of any documentary support. However, having studied US 6130896 in more detail, I note that column 1 lines 23-39 states that it is known to use wireless (radio-frequency) technology rather than a power line to connect computers or other electronic devices in the home. I also note the reference to the radio communication network standard IEEE 802.11 at column 5 lines 37-39 which confirms that wireless networks were known at least before the year 2000. I am therefore satisfied that at the priority date of the application, the skilled person would have known that wireless technology was an alternative to power line communications. Looking at the present application as a whole, I observe that it gives equal weight to the “wire (LAN)” and “wireless” network alternatives. I therefore do not consider that it would involve any inventive ingenuity on the part of the skilled person to replace the power line communications network of Cunningham with a wireless network.
- 18 The examiner also asserts and I agree, on the basis of personal experience, that it was conventional at the priority date of the application to provide users with a GUI on the PC to enable them to choose what information they wished to receive. I note that the “at the request of the user” feature was introduced into the claims with the amendments filed with the agent’s letter dated 2 March 2006. The agent’s letter comments “this counterintuitive removing of a functional decision from the system to the user, to yield a more flexible and efficient method, is not obvious from the prior art ...”. Looking at the context in which this phrase occurs, I also observe that the application does not accord any special significance to this feature.
- 19 Paragraph [0062] of Cunningham discloses that the controller can be used for purposes such as browsing the internet for recipes. I note that Cunningham does not specify whether GUIs are provided automatically or at the request of the user. However, in my view, a person skilled in the art of network communications would understand as a matter of common general knowledge that, in the same way that some users prefer not to have their internet

browsing session interrupted by e-mail notifications, some users of the system of Cunningham might prefer their internet browsing sessions to remain free from monitoring / control GUIs unless the user provides a request for such a GUI. I therefore disagree with the agent and I do not consider that the inclusion of this feature is “counterintuitive” as he suggests. In my judgment, it would be a matter of routine to a person skilled in the art to configure the system of Cunningham to provide a GUI for monitoring or controlling the network to the touch-screen 410 or/and PC 59 only in response to a user request rather than automatically.

Conclusions

- 20 I find that claim 1 as further amended at the hearing complies with section 14(5) but lacks an inventive step as required by section 1(1)(b). Although, the inventiveness of the appendant claims was not argued before me, they seem to me to relate to conventional features. I have carefully read the application but I have been unable to find anything that could form the basis of a patentable invention. I therefore refuse the application because it does not comply with section 1(1)(b) of the Patents Act.

Appeal

- 21 Under the Practice Direction to Part 52 of the Civil Procedure Rules, any appeal must be lodged within 28 days.

MRS S E CHALMERS

Deputy Director acting for the Comptroller