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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte SHAREEF F. ALSHINNAWI,
JOHN J. STRUBLE JR., EDWARD S. SUFFERN, and
J. MARK WEBER

Appeal 2015-002995
Application 13/541,483¹
Technology Center 2400

Before CARLA M. KRIVAK, AMBER L. HAGY, and
JOHN R. KENNY, *Administrative Patent Judges*.

HAGY, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 1–5, which are all of the pending claims. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

¹ Appellants identify Lenovo Enterprise Solutions (Singapore) Pte. Ltd. as the real party in interest. (App. Br. 2.)

Introduction

According to Appellants, “[t]he present invention relates to network connections and high-speed data links between devices of a computer network.” (Spec. ¶ 2.)

Exemplary Claim

Claim 1, reproduced below with the disputed limitation italicized, is exemplary of the claimed subject matter:

1. A method, comprising:

selectively connecting a host adapter to a network using a four-channel physical connection or a single-channel physical connection, wherein each channel includes one transmitter lane and one receiver lane;

automatically detecting whether the four-channel physical connection or the single-channel physical connection has been made to the host adapter;

automatically invoking a default four-channel protocol in response to detecting the four-channel physical connection has been made or an alternative single-channel protocol in response to detecting the single-channel physical connection has been made; and

communicating from the host adapter over the network using the selected one of the default, four-channel protocol and the alternative, single-channel protocol using the same host adapter.

REFERENCES

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Chang	US 2009/0116472 A1	May 7, 2009
Wong	US 2010/0097209 A1	Apr. 22, 2010
Barbieri	US 2010/0296559 A1	Nov. 25, 2010

REJECTIONS

Claims 1–3 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Barbieri and Wong. (Final Act. 2–6.)

Claim 4 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Barbieri and Chang. (Final Act. 6–7.)

Claim 5 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Barbieri and “Background of the Related Art” as stated in the Application. (Final Act. 7–8.)

ISSUES

(1) Whether the Examiner erred in finding the combination of Barbieri and Wong teaches or suggests “selectively connecting a host adapter to a network using a four-channel physical connection or a single-channel physical connection, wherein each channel includes one transmitter lane and one receiver lane,” as recited in independent claim 1.

(2) Whether the Examiner erred in finding Barbieri teaches or suggests “supplying Vital Product Data (VPD) to the host adapter from a cable connecting the host adapter to the network . . . ,” as recited in dependent claims 2 and 3.

ANALYSIS

We have reviewed the Examiner’s rejections in light of Appellants’ arguments the Examiner has erred. We disagree with Appellants’ conclusions and we adopt as our own: (1) the findings and reasons set forth by the Examiner in the action from which this appeal is taken (Final Act. 2–8) and (2) the reasons set forth by the Examiner in the Examiner’s Answer in response to Appellants’ Appeal Brief. (Ans. 2–12.) We concur with the

conclusions reached by the Examiner, and we highlight the following for emphasis.²

A. *“selectively connecting a host adapter to a network using a four-channel physical connection or a single-channel physical connection, wherein each channel includes one transmitter lane and one receiver lane . . .”*

In rejecting independent claim 1, the Examiner relies primarily on Barbieri, finding Barbieri teaches or suggests all limitations. (Final Act. 2–4.) With regard to the limitation “wherein each channel includes one transmitter lane and one receiver lane” in particular, the Examiner finds Barbieri’s teaching of “transceiver modules” at least suggests both a transmitter lane and a receiver lane for each channel of the transceiver module, because “a transceiver is able to transmit and receive data.” (Final Act. 3.) The Examiner additionally finds Wong expressly teaches a “channel includes one transmitter lane and one receiver lane.” (Final Act. 4 (citing Wong ¶ 37).) The Examiner then finds the combination of Wong with Barbieri would have been obvious “to specify a transceiver has two lines as taught by Wong,” and the motivation for such combination would have been “to transmit and receive data simultaneously.” (Final Act. 4.)

Appellants argue the Examiner’s findings are in error because “Barbieri fails to disclose ‘a single-channel physical connection.’” (App. Br. 11.) In particular, Appellants argue that, although Barbieri discloses a “single-channel card,” Barbieri “discloses that the ‘single channel card’ is ‘de-multiplexed over a plurality of lanes.” (App. Br. 11 (citing Barbieri ¶¶ 9

² Only those arguments made by Appellants have been considered in this decision. Arguments Appellants did not make in the briefs have not been considered and are deemed to be waived. See 37 C.F.R. § 41.37(c)(1)(iv).

and 20).) Appellants further argue “Barbieri’s network port 112 couples to either a single channel card or a multi-channel card, but always uses all four lanes.” (App. Br. 12.) Thus, Appellants contend, Barbieri’s teaching does not fall within the scope of claim 1 because “the ‘single-channel connection’ of [Appellants’] claim 1 is *expressly limited to* ‘one transmitter lane and one receiver lane.’” (App. Br. 11 (emphasis added).) The Examiner responds by noting that Appellants’ argument “is focused on the *operation* of [Barbieri’s] networking device instead of the *connection* between the network and the networking device, so . . . [Appellants’] argument is not relevant to claim 1.” (Ans. 9 (emphases added).)

We agree with the Examiner, and are not persuaded by Appellants’ arguments. As the Examiner finds, Barbieri teaches a networking device with either a “single channel card having one transceiver or a multi-channel card having multiple transceivers.” (Ans. 9.) This is depicted in Figure 1 of Barbieri, which “illustrates an example of a line card **102** that is configured to selectively receive either a *multi-channel* transceiver module card **104** having four 10 GbE [Gigabit Ethernet] interfaces **106** or a *single channel* transceiver module card 108 having a single 50 GbE interface **110** in the same network port **112.**” (Barbieri ¶ 12 (emphases added).) Thus, as the Examiner correctly finds, the *connection* of Barbieri’s “networking device” (depicted as item 202 in Figure 2) *to a network* is via either a “four-channel physical connection or a single-channel physical connection,” as recited in claim 1. (Ans. 9–10; *see also* Barbieri Figs. 1 and 2 (depicting multi-channel transceiver module cards with four network interfaces and single-channel transceiver module cards with only one network interface).) The fact that, *within the networking device itself*, data from the single-channel

physical connection is de-multiplexed and processed over four lanes does not remove Barbieri's teachings from the scope of claim 1. We are, therefore, not persuaded by Appellants' argument the Examiner erred in finding Barbieri teaches or suggests a "single-channel physical connection."

Appellants also argue the Examiner's combination of Barbieri with Wong is improper because "modifying Barbieri according to Wong would make Barbieri unsatisfactory for its intended purpose" in that "Barbieri would only be able to operate with a single lane channel and could not operate with multiple channels." (App. Br. 13.) We disagree with Appellants' arguments, which are again focused on the internal operation of Barbieri's networking device instead of the physical connections between the host adapter and the network, as recited in claim 1. As the Examiner finds, and we agree, in disclosing both a "four-channel" and a "single-channel" physical *connection*, Barbieri discloses transceiver modules that "include a SFP (small form-factor pluggable transceiver) module." (Ans. 10.) As the Examiner further finds, "[i]t is well known in the art that the SFP module has *a transmitter and a receiver* for transmitting and receiving data, so it is strongly suggested that the transceiver module may have *a transmit lane and a receive lane*." (Ans. 10 (emphases added).) Thus, modifying Barbieri with Wong would provide a transmitter lane and a receiver lane for *each* incoming channel of the network port (illustrated in Figure 2 of Barbieri as "SFP" transceiver modules). This would not change the principle of operation of Barbieri with regard to data processing *internal* to the networking device (that is, demultiplexing data from the single-channel transceiver module).

We are, therefore, not persuaded by Appellants' arguments the Examiner erred in finding the combination of Barbieri and Wong teaches or suggests "selectively connecting a host adapter to a network using a four-channel physical connection or a single-channel physical connection, wherein each channel includes one transmitter lane and one receiver lane . . . ," as recited in claim 1.

For the foregoing reasons, we are not persuaded of error in the Examiner's 35 U.S.C. § 103(a) rejection of independent claim 1 or dependent claim 5, which is not argued separately, and we, therefore, sustain the rejection of these claims.

B. *"supplying Vital Product Data (VPD) to the host adapter from a cable connecting the host adapter to the network . . ."*

With regard to dependent claims 2 and 3, Appellants argue the Examiner's findings are in error because "the rejection fails to provide any evidence that Barbieri teaches 'supplying Vital Product Data (VPD) to the host adapter **from a cable**.'" (App. Br. 14.) In particular, Appellants argue "[s]ince Barbieri fails to mention a cable, Barbieri certainly does not teach supplying VPD from a cable." (*Id.*)

We disagree. As the Examiner finds, and we agree, Barbieri "explicitly discloses either a single channel transceiver card or a multi-channel transceiver card is inserted into the networking device," and further discloses "the networking device can be 'a router.'" (Ans. 12 (citing Barbieri ¶¶ 17, 28).) As Barbieri further discloses, the networking device 202 (e.g., router) transmits signals to the network through "cabling" that is coupled to either the single-channel interface 110 (Barbieri ¶ 14 and Fig. 1) or a multi-channel interface 206 (Barbieri ¶ 18 and Fig. 2). The "cabling" may be "fiber optic cabling." (Barbieri ¶ 18.) Thus, although Appellants

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may be correct that Barbieri “does not once mention a cable,” Barbieri does disclose a “cable connecting the host adapter to the network,” as recited in claims 2 and 3, by disclosing, *inter alia*, “fiber optic cabling” coupled to transceiver modules.

For the foregoing reasons, we are not persuaded of error in the Examiner’s 35 U.S.C. § 103(a) rejection of dependent claims 2 and 3, or claim 4, which is not argued separately. We, therefore, sustain the rejection of claims 2–4.

DECISION

For the above reasons, the Examiner’s rejections of claims 1–5 are affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED