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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte SHAREEF ALSHINNAWI, GARY D. CUDAK,
EDWARD S. SUFFERN, and JOHN MARK WEBER¹

Appeal 2018-001874
Application 14/506,668
Technology Center 2400

Before CAROLYN R. THOMAS, MELISSA A. HAAPALA, and
DAVID J. CUTITTA II, *Administrative Patent Judges*.

CUTITTA, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 1–18, all pending claims of the application. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

¹ Lenovo Enterprise Solutions (Singapore) Pte. Ltd. (“Appellant”) is the applicant, as provided for under 37 C.F.R. § 1.46, and is also identified in the Brief as the real party in interest. *See* Appeal Br. 2.

STATEMENT OF THE CASE

Introduction

Appellant's invention is directed to "auto-configuring computing devices disposed in a network environment based upon a relative location of each of the computing devices." Spec. ¶6.²

Illustrative Claims

Claims 1, 7, and 13 are independent. Claims 1 and 7 are illustrative of the claimed subject matter and are reproduced below with limitations at issue emphasized:

1. A method for auto-configuring computing devices disposed in a network environment based upon a relative location of each of the computing devices, the method comprising:

broadcasting into an electromagnetic near field from at least two surface positions of a computing device an identification of the computing device, and a position identification of a corresponding one of the surface positions;

receiving in a receiver disposed on at least one of the surface positions, an identification of another computing device, and a corresponding position from which the identification had been broadcast;

repeating the broadcasting and receiving in a multiplicity of other computing devices;

² Throughout this Decision, we refer to: (1) Appellant's Specification filed October 5, 2014 ("Spec."); (2) the Final Office Action ("Final Act.") mailed January 11, 2017; (3) the Appeal Brief filed June 12, 2017 ("Appeal Br."); (4) the Examiner's Answer ("Ans.") mailed October 12, 2017; and the Reply Brief filed December 12, 2017 ("Reply Br.").

determining in each of the computing devices a position relative to another of the computing devices; and,

establishing a device configuration in each of the computing devices based upon a correspondingly determined relative position.

7. A computing device configured to automatically establish a configuration based upon a relative location of the computing device in a network environment, the system comprising:

a processor and memory;

at least two near field transmitter-receivers disposed at correspondingly different positions on a surface of the computing device and coupled to the processor and memory, the transmitter-receivers cooperatively communicating data in respectively different electromagnetic near fields; and,

an auto-configuration module executing in the memory by the processor, the module comprising program code enabled upon execution in the memory to broadcast into one of the electromagnetic near fields from at least one of the surface positions an identification of the computing device, and a position identification of a corresponding one of the surface positions, to receive in at least one of the transmitter-receivers from a corresponding electromagnetic near field, an identification of another computing device, and a corresponding position from which the identification had been broadcast, to determine a position relative of the computing device relative to another computing device transmitting the received identification and corresponding position, and to establish a device configuration in the computing device based upon the determined relative position.

REFERENCE AND REJECTIONS

Claims 1–18 stand rejected under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter. Final Act. 4–5.

Claims 1–18 stand rejected under 35 U.S.C. § 102(a)(1) as anticipated by Campbell et al. (US 2009/0072967 A1; Mar. 19, 2009) (“Campbell”). Final Act. 6–8.

Our review in this appeal is limited only to the above rejections and the issues raised by Appellant. Arguments not made are waived. *See* 37 C.F.R. §§ 41.37(c)(1)(iv), 41.39(a)(1).

ANALYSIS

35 U.S.C. § 101 Rejection

Issue: Does the Examiner err in rejecting claims 1–18 under 35 U.S.C. § 101 as being directed to non-statutory subject matter?

The Examiner, in rejecting claims 1–18 under 35 U.S.C. § 101 as directed to non-statutory subject matter, indicates the claims “are directed to collecting and configuring a device based on [its] location and relative position to other devices which are similar to concepts that have been identified as abstracts by the courts,” and “the additional elements when considered both individually and as a combination do not amount to significantly more than the abstract idea.” Final Act. 4.

Appellant argues the claims are not directed to an abstract idea but rather “are directed to a process driven *improvement to computer-related technology by allowing computer performance of a function not previously performable by a computer*” and so “no further analysis under Mayo part 2

is required.” Appeal Br. 10–11 (citing *Mayo Collaborative Servs. v. Prometheus Labs, Inc.*, 132 S. Ct. 1289 (2012)).

The Supreme Court has set forth “a framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2355 (2014) (citing *Mayo*, 132 at 1296–97). According to the Supreme Court’s framework, we must first determine whether the claims at issue are directed to one of those concepts (i.e., laws of nature, natural phenomena, and abstract ideas). *Id.* If so, we must secondly “consider the elements of each claim both individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.” *Id.* (internal citation omitted). The Supreme Court characterizes the second step of the analysis as “a search for an ‘inventive concept’ — i.e., an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.’” *Id.* (internal citation omitted).

With respect to step one of *Alice*, the “Supreme Court has suggested that claims ‘purport[ing] to improve the functioning of the computer itself,’ or ‘improv[ing] an existing technological process’ might not succumb to the abstract idea exception.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016) (citing *Alice*, 134 S. Ct. at 2358–59). Thus, our reviewing court guides that the first step in the *Alice* inquiry asks whether the focus of the claims is on a specific asserted improvement in computer capabilities or an existing technological process, or, instead, on a process that qualifies as an “abstract idea” for which computers are invoked merely

as a tool. *Enfish*, 1327 at 1335–36. *Accord McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016) (“We therefore look to whether the claims in these patents focus on a specific means or method that improves the relevant technology or are instead directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery.”).

Claim 7 recites a computing device configured to automatically establish “a device configuration . . . based upon the determined relative position” of “the computing device relative to another computing device.” Appeal Br. 21. Claim 7 further requires that the computing device positions be located using “near-field communication transmitter-receivers disposed . . . on a surface of the computing device.” *Id.* We agree with Appellant that by automatically establishing a device configuration in the computing device based upon a determined position of the computing device relative to another computing device the claim improves a “*computer-related technology.*” Appeal Br. 21.

Moreover, our conclusion that the claim is directed to a specific improvement of an existing technology is supported by the Specification’s disclosure that the claimed invention achieves benefits over conventional blade server systems, which “provide[] no clue as to the location of the server blades within the cluster” making location of an individual blade server within a rack “a daunting task.” Spec. ¶ 5. Appellant’s invention addresses this problem of server location by assigning an IP address “to each computing device in accordance with its relative position such that the IP address of the computing device itself can indicate a location in the data center of a corresponding computing device.” Spec. ¶ 18.

Thus, according to step one of the *Alice* test, we determine claim 7 is not directed to an abstract idea. Because we find that claim 7 is not directed to ineligible subject matter, we do not reach step two of the *Alice* test. *Enfish*, 822 F.3d at 1339. We, therefore, do not sustain the Examiner’s rejection of claim 7 as being directed to patent ineligible subject matter. Independent claims 1 and 13 also set forth establishing a device configuration in computing devices based upon relative positions. Accordingly, for the same reason, we further do not sustain the rejections of independent claims 1 and 13, and dependent claims 2–6, 8–12, and 14–18 under 35 U.S.C. § 101.

35 U.S.C. § 102 Rejection

Issue: Does the Examiner err in finding Campbell discloses “broadcasting by the device into an electromagnetic near field from at least two surface positions of a computing device an identification of the computing device” and “receiving by the device in a receiver disposed on at least one of the surface positions, an identification of another computing device,” as recited in illustrative claim 1.

The Examiner finds Campbell discloses “broadcasting into an electromagnetic near field from at least two surface positions of a computing device an identification of the computing device” and “a receiver disposed on at least one of the surface positions” of a computing device, as recited in claim 1. Final Act. 6–7 (citing Campbell ¶¶ 18, 22, 24).

Appellant argues the Examiner errs in finding Campbell discloses the limitations at issue because:

in paragraph [0022] [of Campbell] two transceivers are taught **that are not affixed to surfaces of a computing device as claimed by [Appellant]**, but that are “disposed along a common plane . . . co-planar with one wall . . . of the data center room” while the RFID tags are affixed to each “structure”— **one a piece—not two**. Paragraph [0024] of Campbell in turn shows the receipt of a broadcast signal broadcast **not from a computing device where the RFID tags** are located but from along the wall of the data center.

Appeal Br. 15 (citing Final Act. 3–4).

Appellant further argues that in the Answer the “Examiner seems to simply ignore [Appellant’s] arguments [that] . . . Campbell shows the receipt of a broadcast signal broadcast **not from a computing device where the RFID tags** are located but from along the wall of the data center.” Reply Br. 11 (citing Campbell ¶ 24).

We are persuaded by Appellant’s arguments. Campbell discloses “a first radio transceiver unit **150** and a second radio transceiver unit **151** disposed along a common plane **101**, which in one example, is co-planar with one wall **101** of the data center room **100**.” Campbell ¶ 22. The transceivers 150, 151 transmit and receive signals to and from wireless identification units 140, which are affixed to respective electronics racks 110 located in the data center, to “physically locat[e] identification units [140], and hence electronics racks.” Campbell ¶ 24; *see* Campbell ¶¶ 22, 23, and Fig. 1. The Examiner does not show that transceivers 150, 151 are disposed on a surface position of a computing device, as claimed. In addition, the Examiner does not show that “first transceiver unit **235**” (Campbell ¶ 24),

which corresponds to first radio transceiver unit 150 (Campbell ¶ 22), is disposed anywhere other than “wall 101 of the data center room 100” (*id.*).

In view of Campbell’s disclosure at paragraphs 22 and 23 and the Examiner-cited paragraph 24 of Campbell, we agree with Appellant that the Examiner has not shown Campbell’s transceiver units, which are disposed along “wall 101 of the data center room 100” (Campbell ¶ 22), disclose broadcasting “into an electromagnetic near field from at least two surface positions of a computing device” and “a receiver disposed on at least one of the surface positions” of the computing device, as recited in claim 1.

Thus, we are persuaded that the Examiner has not shown Campbell anticipates claim 1. *See Richardson v. Suzuki Motor Co., Ltd.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989) (“[A]n invention is anticipated if the same device, including all the claim limitations, is shown in a single prior art reference. Every element of the claimed invention must be literally present, arranged as in the claim.” (citations omitted)).

Because we agree with at least one of the dispositive arguments advanced by Appellant for claim 1, we need not reach the merits of Appellant’s other arguments. Accordingly, based on the record before us, we do not sustain the Examiner’s 35 U.S.C. § 102 rejection of independent claim 1, and of independent claims 7 and 13, which recite limitations commensurate to those discussed above, and, for the same reasons, dependent claims 2–6, 8–12, 14, and 15.

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DECISION

We reverse the Examiner's decision to reject claims 1–18 under 35 U.S.C. § 101.

We reverse the Examiner's decision to reject claims 1–18 under 35 U.S.C. § 102(a)(1).

REVERSED