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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte DANIEL LEREYA, NADAV PARAG,
VLADIMIR SHALIKASHVILI, and MOSHE WEISS

Appeal 2020-003101
Application 15/668,275¹
Technology Center 3600

Before MURRIEL E. CRAWFORD, BRUCE T. WIEDER, and
BRADLEY B. BAYAT, *Administrative Patent Judges*.

WIEDER, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the Examiner's final rejection of claims 1–20. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

¹ We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as International Business Machines Corporation. (Appeal Br. 2.)

CLAIMED SUBJECT MATTER

Appellant’s invention “relates generally to an improved data processing apparatus and method and more specifically to mechanisms for utilizing analytic data to generate crowd-based custom logic units for use in storage management.” (Spec. ¶ 1.)

Claims 1, 8, and 15 are the independent claims on appeal. Claim 1 is illustrative. It recites (bracketed material added):

1. A method, in a data processing system comprising at least one processor and a memory coupled to the at least one processor, for generating crowd-based custom logic units for use in storage management, the method comprising:

[1.] responsive to receiving analytic data from a set of storage device managers on a set of customer devices about how users interact with a set of storage devices on the set of customer devices managed by a respective storage device manager, analyzing the analytics data in order to gain one or more insights into how users interact with the set of storage devices using the respective storage manager;

[2.] utilizing the one or more insights, generating one or more logic units that will allow the users to perform their daily tasks more efficiently; and

[3a.] transmitting the one or more logic units to one or more storage device managers in the set of storage device managers so that [3b.] the one or more storage device managers integrate the one or more logic units and the users of the one or more storage device managers and the respective set of storage devices on the set of customer devices utilize the one or more logic units to perform their daily tasks more efficiently.

REJECTIONS

Claims 1, 2, 4, 6–9, 11, 13–16, 18, and 20 are rejected under 35 U.S.C. § 103 as unpatentable in view Guthrie (US 8,515,801 B2, iss. Aug. 20, 2013) and Vibhor (US 2015/0244775 A1, pub. Aug. 27, 2015).

Claims 3, 5, 10, 12, 17, and 19 are rejected under 35 U.S.C. § 103 as unpatentable in view Guthrie and Lehto (US 2013/0212154 A1, pub. Aug. 15, 2013).²

ANALYSIS

Obviousness is a legal conclusion involving a determination of underlying facts.

Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.

KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 406 (2007) (quoting *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17–18 (1966)).

With regard to the scope and content of the prior art, the Examiner finds that Guthrie discloses “utilizing the one or more insights, generating one or more logic units that will allow the users to perform their daily tasks more efficiently.” (Final Action 5 (citing Guthrie, col. 5, ll. 54–61); *see also* Answer 3–4.)

² In rejecting the independent claims (claims 1, 8, and 15), the Examiner relies on Vibhor to cure a deficiency in Guthrie. The Examiner does not rely on Lehto to cure this deficiency in rejecting dependent claims 3, 5, 10, 12, 17, and 19. (*See* Final Action 27–34.) We treat the failure to cite Vibhor in this rejection of these dependent claims as inadvertent and, in this case, harmless error.

Appellant argues that

while Guthrie collects data and examines the data in order to obtain valuable insight into the activities being undertaken to carry out the business process, nowhere does Guthrie utilize the one or more insights to **generate one or more logic units that will allow the users to perform their daily tasks more efficiently.** In fact, there is no mention of a logic unit

(Appeal Br. 9.)

As an initial matter, we construe the claim terms “logic units” and “integrate.”

Claims are construed in light of the specification. *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004) (quoting *In re Bond*, 910 F.2d 831, 833 (Fed. Cir. 1990) (“During examination, ‘claims . . . are to be given their broadest reasonable interpretation consistent with the specification, and . . . claim language should be read in light of the specification as it would be interpreted by one of ordinary skill in the art.’”)). We are also mindful that “[t]he general rule . . . is that the claims of a patent are not limited to the preferred embodiment.” *Karlin Tech., Inc. v. Surgical Dynamics, Inc.*, 177 F.3d 968, 973 (Fed. Cir. 1999).

The Specification discloses:

[T]he mechanisms of the illustrative embodiment utilize analytics data to generate crowd-based custom logic units for use by other [sic] in their storage management. That is, the mechanisms analyze the analytics data gathered from a plurality of users using storage device managers in order to gain community insights. Using the community insights, the mechanisms generate community knowledge-based procedures, herein after [sic] referred to as “Logic Units” that are then integrated back into the storage device managers as plugins.

(Spec. ¶ 14.)

In view of the disclosures in the Specification, and applying a broadest reasonable interpretation, we determine that the claim term “logic units” includes community knowledge-based procedures.

In view of the disclosures in the Specification, and applying a broadest reasonable interpretation, we determine that the claim term “integrate” includes to combine to form a unified whole, e.g., storage device managers combine with the logic units to form a unified whole. (*See* Merriam-Webster.com, <http://merriam-webster.com/dictionary/integrate>, def. 1 (last visited Sept. 25, 2020).)

Guthrie “relates generally to improvements to the performance of business processes” (Guthrie, col. 1, ll. 16–17), and “generation of a suggestion or suggestions of alternative techniques for carrying out business processes” (*id.* at col. 2, ll. 29–36). More particularly, Guthrie discloses that “business processes include various tasks involving the use of a computing resource (*id.* at col. 2, ll. 7–8), and that “[b]usiness processes can be thought of as including a number of components, including functions involving data management and organization” (*id.* at col. 4, ll. 39–41). Guthrie discloses gathering information relating to

activities undertaken in carrying out various business processes, and evaluat[ing] the efficiency, . . . and in general the business process. . . . Such evaluation may include identifying best practices for carrying out business processes and comparing best practices to actual operations within an organization, or within individual users and groups within the organization.

(Guthrie, col. 6, ll. 6–18.) In short, Guthrie teaches using insights from analyzing relative efficiencies involved in operations to carry out tasks, i.e., use of community based knowledge to generate suggestions for alternative procedures to more efficiently carry out tasks. Thus, we disagree with

Appellant's assertion that Guthrie does not generate one or more logic units, i.e., one or more community knowledge-based procedures.

With regard to claim step 3a, i.e., "transmitting the one or more logic units to one or more storage device managers in the set of storage device managers," the Examiner finds that Guthrie discloses this limitation. (Final Action 5–6 (citing Guthrie, col. 6, ll. 19–44, col. 16, ll. 38–45); *see also* Answer 5–6 (citing Guthrie col. 2, ll. 15–44).) In particular, Guthrie discloses "configurations for facilitating the transfer of information for purposes of analysis to improve business processes." (Guthrie, col. 6, ll. 21–24.) We note that Guthrie specifically discloses that a user's workstation can process information collected from the workstation "for purposes of improving the performance of transactions involving the use of [the] workstation," and that the workstation "is capable of processing information collected from other workstations for purposes of improving transactions involving the use of those workstations." (*Id.*, col. 6, l. 62–col. 7, l. 3.)

Regardless, Appellant argues that

while Guthrie describes the components of a workstation 104A-104C, i.e. a central processing unit (CPU) 106, a keyboard 112, a display 114, a mouse 116, a telephone 117, and a human interface device (HID) 118, nowhere is there a description that the server 102 provided any of these components to the workstation 104A-104C. In fact, Appellants respectfully submit that none of these components are a logic unit, such as a plug-in, plugin, add-in, addin, add-on, addon, or other extension, that is generated to allow the users to perform their daily tasks more efficiently utilizing the one or more insights. Appellants respectfully submit that this deficiency is because Guthrie does not utilize one or more insights to generate one or more logic units that will allow the users to perform their daily tasks more efficiently

(Appeal Br. 10.)

To the extent Appellant’s argument is based on Guthrie not generating one or more logic units, for the reasons discussed above, we do not find this argument persuasive. To the extent Appellant’s argument is that a logic unit must be “a plug-in, plugin, add-in, addin, add-on, addon, or other extension” (*see id.*), we disagree for the reasons discussed above. And to the extent Appellant’s argument is that a logic unit must be a hardware device, e.g., a CPU, a keyboard, a display, a mouse, etc., we also disagree for the reasons discussed above.

With regard to step 3b, and particularly the limitation “the one or more storage device managers integrate the one or more logic units,” the Examiner finds that this is disclosed in Vibhor. (Final Action 6–7 (citing Vibhor, Fig. 9, ¶¶ 192–203, 338)³; *see also* Answer 5 (citing Vibhor ¶ 190).)

Vibhor discloses an information management system including a storage manager. (*Id.* ¶ 187.) “[T]he storage manager **940** may

³ In discussing Vibhor, the Examiner refers to “the following limitation: managed by a respective storage device manager; using the respective storage manager; storage device managers integrate the one or more logic units and the users of the one or more storage device managers.” (Final Action 6 (emphasis omitted).) This suggests that the Examiner erroneously interprets claim 1 to require integrating the logic units and the users of the storage device managers. As discussed above, the Specification discloses that the logic units are “integrated back into the storage device managers.” (*See, e.g.*, Spec. ¶¶ 14, 40, 52.) Thus, we interpret limitation 3b of claim 1 as reciting “the one or more storage device managers integrate the one or more logic units[;] and the users of the one or more storage device managers and the respective set of storage devices on the set of customer devices utilize the one or more logic units to perform their daily tasks more efficiently.”

communicate with and/or control some or all elements of the information management system.” (*Id.* ¶ 190.) “[I]n certain embodiments, control information originates from the storage manager.” (*Id.*) “Control information can generally include parameters and instructions for carrying out information management operations, such as, without limitation, instructions to perform a task associated with an operation” (*Id.*) For example, Vibhor discloses that the storage manager performs functions including “tracking logical associations between components in the information management system.” (*Id.* ¶ 200.)

The Examiner determines:

It would have been obvious . . . to use Vibhor[’s] teaching of using a storage manager to send, transmit and/or communicate information/logic units in Guthrie[’]s method and apparatus [to] analyze dat[a] . . . to determine efficiency of a business process. Specifically, in relation to command and transactions used for achieving the same intended result (Guthrie Col. 11, lines 15-30). Also, to enable the storage manager 940 to track logical association[s] between storage devices and allow[ing] the users to configure and initiate certain information management operations on an individual basis (Vibhor [0203]).

(Final Action 7.)

Appellant argues that

while Vibhor may track logical associations between components and manage a database, nowhere does the storage manager of Vibhor integrate the one or more logic units [T]his deficiency is because Vibhor does not utilize one or more insights to generate one or more logic units that will allow the users to perform their daily tasks more efficiently. . . . Therefore, Appellants respectfully submit that, since Guthrie and Vibhor, taken alone or in combination, do not utilize the one or more insights to generate one or more logic units that will allow the users to perform their daily tasks more efficiently, Guthrie

and Vibhor, taken alone or in combination, could not transmit the one or more logic units to one or more storage device managers in the set of storage device managers

(Appeal Br. 11–12.)

For the reasons discussed above regarding Guthrie, we disagree with Appellant that Guthrie does not utilize one or more insights to generate one or more logic units that will allow users to perform tasks more efficiently.

However, we are persuaded by Appellant’s argument that the Examiner erred (Appeal Br. 11) in finding that Vibhor discloses “integrat[ing] the one or more logic units” (Final Action 6). As an initial matter, we note that the Examiner’s reliance on Vibhor for teaching “integrat[ing] the one or more logic units” suggests that even though Guthrie discloses processing information from workstations to improve performance of those workstations (Guthrie, col. 6, l. 62–col. 7, l. 3), the Examiner does not believe that it would have been obvious from Guthrie alone to integrate Guthrie’s community knowledge-based procedures into storage device managers. With regard to Vibhor, the Examiner does not direct us to a disclosure in Vibhor discussing the use of community knowledge-based procedures. (*See* Final Action 6–7.) It follows that the Examiner also does not direct us to a disclosure in Vibhor of combining storage management devices with community knowledge-based procedures to form a unified whole.

Therefore, absent the Examiner directing us to a disclosure in Vibhor of integrating community knowledge-based procedures into Vibhor’s storage managers, i.e., integrating one or more logic units, we find that the Examiner’s reasoning is not sufficient to support the determination that it would have been obvious “to use Vibhor[’s] teaching of using a storage

manager to send, transmit and/or communicate information/logic units in Guthrie[']s method.” (See Final Action 7.)

Independent claims 8 and 15 contain language similar to that of claim 1 and are similarly rejected. See Final Act. 12–15, 20–23. For similar reasons to those discussed above, we are persuaded of reversible error.

CONCLUSION

The Examiner’s rejections of claims 1–20 under 35 U.S.C. § 103 are reversed.

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 2, 4, 6–9, 11, 13–16, 18, 20	103	Guthrie, Vibhor		1, 2, 4, 6–9, 11, 13–16, 18, 20
3, 5, 10, 12, 17, 19	103	Guthrie, Lehto		3, 5, 10, 12, 17, 19
Overall Outcome				1–20

REVERSED