

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

INVESTORS EXCHANGE LLC,
Petitioner,

v.

NASDAQ, INC.,
Patent Owner.

Case CBM2018-00038
Patent 7,895,112 B2

Before TONI R. SCHEINER, MEREDITH C. PETRAVICK, and
KRISTI L. R. SAWERT, *Administrative Patent Judges*.

PETRAVICK, *Administrative Patent Judge*.

DECISION

Denying Institution of Covered Business Method Patent Review
37 C.F.R. § 42.208, 35 U.S.C. § 328(a)

I. INTRODUCTION

Investors Exchange LLC (“Petitioner”) filed a Petition (Paper 2, “Pet.”) requesting a covered business method (“CBM”) patent review of claims 1–32 of U.S. Patent No. 7,895,112 B2 (Ex. 1001, “the ’112 patent”) under Section 18 of the Leahy-Smith America Invents Act (“AIA”). Petitioner challenges the patentability of claims 1–32 under 35 U.S.C. §§ 101 and 112. Nasdaq, Inc. (“Patent Owner”) filed a Preliminary Response. Paper 7 (“Prelim. Resp.”).

Upon consideration of the Petition and Preliminary Response, we determine that Petitioner has not demonstrated sufficiently that the ’112 patent is eligible for CBM patent review. Accordingly, we do not institute a covered business method patent review of the ’112 patent.

A. Related Matters

Petitioner and Patent Owner inform us that the ’112 patent is the subject of *Nasdaq, Inc. v. IEX Group, Inc.*, Case No. 3:18-cv-03014, in the District of New Jersey. Pet. 73; Paper 4, 1. A related patent is also the subject of CBM patent review petitions. *See* Paper 4, 2.

B. The ’112 Patent

The ’112 patent is titled “Order Book Process and Method” and issued on February 22, 2011. Ex. 1001, (45), (54). The ’112 patent discloses a system for electronic securities trading. *Id.* at 1:13.

Figure 2 of the '112 patent is reproduced below.

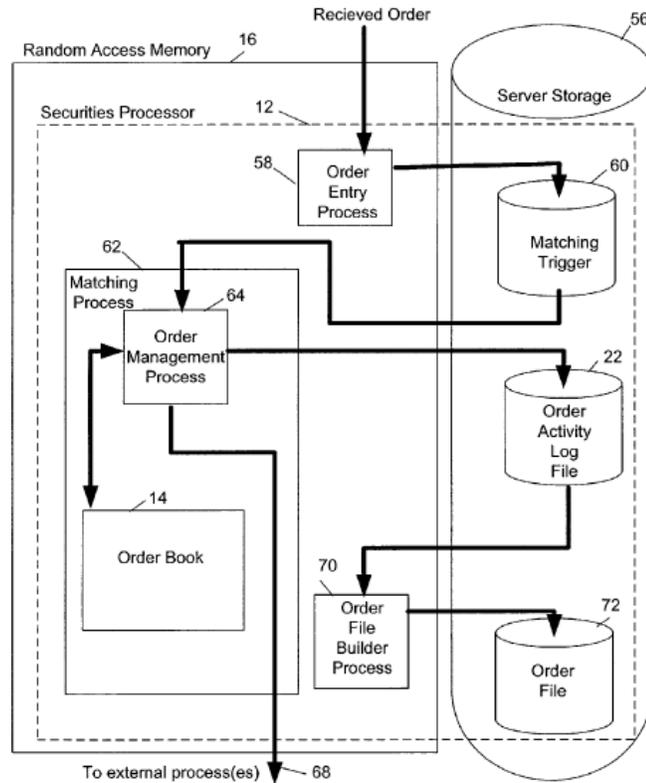


FIG. 2

Figure 2 is a diagram of a random access memory and server storage. *Id.* at 2:15–16. Server 10 has securities processor 12 having an order book 14 that resides in random access memory 16, as opposed to in the server storage, and stores securities trade information. *Id.* at 2:22–25.

The '112 patent states:

By storing, for example, received orders, quotes, or other security information in an order book residing in random access memory, processing time decreases while throughput substantially increases. Further, since the random access memory resident order book is exclusively accessible by a matching process, other processes may only gain access to the order book by passing through this matching process gateway. Thus, the order book is isolated from non-matching related functions, such as scanning the security information stored in the order

book which may delay matching a received order to an order stored on the order book.

Id. at 1:61–2:4; *see id.* at 3:25–31 (“transaction rates capable for this approach exceeds those rates provided by traditional file based approaches”), 5:54–6:17 (describing increasing throughput by not allowing interruptions during matching), 7:42–53 (comparing storing speed of order books stored in RAM as opposed to magnetic medium).

C. Illustrative Claim

Petitioner challenges claims 1–32 of the ’112 patent. Claims 1, 11, 21, and 31 are independent and directed to a corresponding system, method, and computer program products. Claims 1–10 depend directly from claim 1. Claims 12–20 depend directly or indirectly from claim 11. Claims 22–30 depend directly from claim 21. Claim 32 depends from claim 31.

Claim 1, reproduced below, is illustrative of the subject matter at issue.

1. A computer system for execution of transactions involving execution of orders for securities, the computer system comprises:

a central processor device;

a sequential access storage device that provides a persistent store of recorded information;

a main memory coupled to the central processor and the main memory storing:

an order book that includes orders and/or quotes for a particular security, the orders and/or quotes having various prices, sizes and time priorities;

executable code that causes the processor device to match the orders and/or quotes in the order book

for the security to a received order for the security, with the order book only accessible by the executable code that matches orders and/or quotes; and

the executable code that matches further comprising;

order management executable code that sends a message to report matching of the received order, or a portion of the received order, to orders and/or quotes in the order book to an order activity log file located in the sequential access storage device.

Ex. 1001, 9:23–44.

II. ANALYSIS

A. *Claim Construction*

We interpret claims in an unexpired patent using the “broadest reasonable construction in light of the specification of the patent in which [they] appear[.]” 37 C.F.R. § 42.300(b) (2016).¹ Under this standard, we interpret claim terms using “the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the applicant’s specification.” *In re Morris*,

¹ The Petition in this proceeding was filed on July 20, 2018, prior to the effective date of the rule change that replaces the broadest reasonable interpretation standard with the federal court claim interpretation standard. *See* Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 Fed. Reg. 51,340, 51,340 (Oct. 11, 2018) (“This rule is effective on November 13, 2018 and applies to all IPR, PGR and CBM petitions filed on or after the effective date.”).

127 F.3d 1048, 1054 (Fed. Cir. 1997); *see In re Smith Int'l, Inc.*, 871 F.3d 1375, 1382–83 (Fed. Cir. 2017) (“[The] broadest reasonable interpretation . . . is an interpretation that corresponds with what and how the inventor describes his invention in the specification.”). “Under a broadest reasonable interpretation, words of the claim must be given their plain meaning, unless such meaning is inconsistent with the specification and prosecution history.” *Trivascular, Inc. v. Sammuels*, 812 F.3d 1056, 1062 (Fed. Cir. 2016).

Petitioner asserts, “no claim term needs to be construed at this time.” Pet. 27. Likewise, Patent Owner provides no explicit construction of any claim terms. *See* Prelim. Resp. 13, n. 1. We determine that no explicit claim construction is required for the purposes of this Decision. *See Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) (stating that “only those terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy”).

B. Business Method Patent Review Eligibility

Under § 18(a)(1)(E) of the AIA, we may institute a transitional review proceeding only for a covered business method patent. A “covered business method patent” is a patent that “claims a method or corresponding apparatus for performing data processing or other operations used in the practice, administration, or management of a financial product or service, except that the term does not include patents for technological inventions.” AIA § 18(d)(1); *see also* 37 C.F.R. § 42.301 (defining “[c]overed business method patent” and “[t]echnological invention”). To determine whether a patent is eligible for a covered business method patent review, the focus is on the claims. *Blue Calypso, LLC v. Groupon, Inc.*, 815 F.3d 1331, 1340 (Fed. Cir. 2016) (“[Section] 18(d)(1) directs us to

examine *the claims* when deciding whether a patent is a [covered business method] patent.”); *Unwired Planet, LLC v. Google Inc.*, 841 F.3d 1376, 1382 (Fed. Cir. 2016) (CBM patents “are limited to those with *claims* that are directed to methods and apparatuses of particular types and with particular uses ‘in the practice, administration, or management of a financial product or service’” (emphasis added)). One claim directed to a covered business method is sufficient to render the patent eligible for covered business method patent review. *See* Transitional Program for Covered Business Method Patents—Definitions of Covered Business Method Patent and Technological Invention; Final Rule, 77 Fed. Reg. 48,734, 48,736 (Comment 8) (Aug. 14, 2012).

1. Standing

Section 18(a)(1)(B) of the AIA requires that Petitioner, or its real party in interest or privy, “has been sued for infringement of the patent.” Petitioner asserts that it has been sued for infringing the ’112 patent in *Nasdaq, Inc. v. IEX Group, Inc.*, Case No. 3:18-cv-03014-BRM-DEA in the District of New Jersey. Pet. 27 (citing Ex. 1032). Patent Owner does not dispute that it sued Petitioner. Accordingly, Petitioner has standing to file the Petition.

2. Financial Product or Service

The AIA defines a CBM patent as “[a] patent that claims a method or corresponding apparatus for performing data processing or other operations used in the practice, administration, or management of a financial product or service.” AIA § 18(d)(1); *see* 37 C.F.R. § 42.301(a). A CBM patent can be interpreted broadly to encompass patents claiming activities that are financial in nature. Transitional Program for Covered Business Method Patents—Definitions of Covered Business Method Patent and Technological Invention, 77 Fed. Reg.

CBM2018-00038
Patent 7,895,112 B2

48734, 48735 (Aug. 14, 2012); *Blue Calypso*, 815 F.3d at 1338–41 (determining that a patent was a covered business method patent because it claimed activities that are financial in nature); *Unwired Planet*, 841 F.3d at 1380 n. 5 (stating, “we endorsed the ‘financial in nature’ portion of the standard as consistent with the statutory definition of ‘covered business method patent’ in *Blue Calypso*”); *Versata Development Group, Inc. v. SAP America, Inc.*, 793 F.3d 1306, 1324–25 (Fed. Cir. 2015) (“[The statute] on its face covers a wide range of finance-related activities.”).

Petitioner asserts, “[e]very one of the claims of the ’112 Patent concerns matching of financial products (*i.e.*, securities) on an electronic market for trading those financial products.” Pet. 29. Patent Owner does not dispute Petitioner’s contention. *See generally* Prelim. Resp.

As Petitioner asserts, the claims are directed to trading securities in an electronic market. *See* Ex. 1001, 9:23–12:44. For example, independent claim 1 recites a “system for execution of transactions involving execution of orders for securities” (*id.* at 9:23–24), and independent claim 11 recites a “method for trading securities in an electronic trading venue” (*id.* at 10:16–17). Independent claims 21 and 31 recite similar limitations. *Id.* at 11:4–6, 12:22–23. A security is a financial product. Executing or trading orders for securities in an electronic market is a financial activity. Accordingly, we determine that the ’112 patent claims a method or corresponding apparatus for performing data processing or other operations used in the practice, administration, or management of a financial product or service.

3. *Technological Invention*

Even if a patent includes claims that would otherwise be eligible for treatment as a covered business method, review of the patent is precluded if the claims cover only “technological invention[s],” as defined by 37 C.F.R.

§ 42.301(b). The definition of “covered business method patent” in § 18(d)(1) of the AIA does not include patents for “technological inventions.”

To determine whether a patent is for a technological invention, we consider the following: “whether the claimed subject matter as a whole [(1)] recites a technological feature that is novel and unobvious over the prior art; and [(2)] solves a technical problem using a technical solution.” 37 C.F.R. § 42.301(b). Both prongs must be satisfied in order to exclude the patent as a technological invention. *See Versata*, 793 F.3d at 1326–27; *Apple Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1240 (Fed. Cir. 2016). The following claim-drafting techniques typically do not render a patent a “technological invention”:

(a) Mere recitation of known technologies, such as computer hardware, communication or computer networks, software, memory, computer-readable storage medium, scanners, display devices or databases, or specialized machines, such as an ATM or point of sale device.

(b) Reciting the use of known prior art technology to accomplish a process or method, even if that process or method is novel and non-obvious.

(c) Combining prior art structures to achieve the normal, expected, or predictable result of that combination.

Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,763–64 (Aug. 14, 2012). The Federal Circuit has held that a claim does not include a “technological feature” if its “elements are nothing more than general computer system components used to carry out the claimed process.” *Blue Calypso*, 815 F.3d at 1341; *see also Versata*, 793 F.3d at 1327 (“the presence of a general purpose computer to facilitate operations through uninventive steps does not change the fundamental character of an invention”).

Petitioner and Patent Owner dispute whether the claims of the ’112 patent (1) recite a technological feature that is novel and unobvious over the prior art; and

(2) solve a technical problem using a technical solution. Pet. 31–41; Prelim. Resp. 18–23.

As to the first prong, Petitioner contends that the '112 patent does not claim a novel and nonobvious technological feature and merely recites conventional components used in a conventional manner. Pet. 33–39. In particular, Petitioner contends that the claimed feature of code/instructions that perform matching having exclusive access to the order book is not novel or nonobvious. *Id.* at 17–18, 34–38. Petitioner provides a Declaration of Prof. Bernard S. Donefer (Ex. 1003) and a Declaration of Dr. Benjamin Goldberg (Ex. 1004) as evidence of this feature's conventionality. *Id.* at 36–38 (citing Ex. 1003 ¶ 94; Ex. 1004 ¶¶ 54, 58, 59, 71, 72).

Patent Owner argues that Petitioner fails to show sufficiently that “the exclusive memory access feature” “is [not] novel or nonobvious because IEX has provided no evidence that the matching takes places in a dedicated process. . . . There is no evidence that teaches or suggests to a skilled artisan to isolate a trading platform's matching operation into a process separate from other non-matching related operations.” Prelim. Resp. 19; *see also id.* at 13–18 (explaining that in conventional systems the order book is stored in a file on disk in a manner which allows multiple operations to [compete] for access to the book).

We agree with Patent Owner. *See* Prelim. Resp. 14–20. Dr. Goldberg's and Prof. Donefer's testimony indicates that computer processes having dedicated memory spaces accessible only by that computer process were known and that the computer processes, by default, would store their data in their data address spaces. *See* Ex. 1004 ¶¶ 52–59 (testimony of Dr. Goldberg); *see also* Ex. 1003 ¶ 94 (testimony of Prof. Donefer agreeing with Dr. Goldberg). Dr. Goldberg's and Prof. Donefer's testimony, however, assumes that one of ordinary skill in the art

would have known to use such a computer process for the claimed matching and to store the claimed order book, by default, in the computer process' dedicated address space. *Id.* Neither Petitioner nor its declarants, however, provide a sufficient explanation or other evidence to support this assumption. Further, we note that, to the contrary, the '112 patent discloses that prior computerized trading systems allowed operations other than the matching operation to access the order book. Ex. 1001, 5:66–6:17 (“For example, in some computerized trading systems an order book may, for example, be scanned to provide securities information to users during the same time period in which orders are retrieved from the order book for matching to a received order.”) We, thus, determine that Petitioner fails to show that the claims of the '112 patent do not recite a technological feature that is novel and unobvious over the prior art.

As to the second prong, Petitioner contends that the '112 patent does not solve a technical problem using a technical solution. Pet. 39–41. Petitioner identifies the problem solved by the '112 patent as “a problem associated with non-matching processes accessing the order book ‘such as scanning information stored in the order book which may delay matching . . .’” and the solution as “stor[ing] the order book into main memory (*e.g.*, RAM) and to make it exclusively accessible by the matching process”). Pet. 40 (citing Ex. 1001, 1:60–21, 2:1–4). Petitioner does not argue that the identified problem is not a technical problem but, relying upon substantially the same evidence discussed above with respect to the first prong, argues that the '112 patent does not disclose a technical solution because the claims only recite the use of known technology. Pet. 40–41.

For the same reasons as discussed above with respect to the first prong, we determine that Petitioner fails to show sufficiently that the claims of the '112 patent do not solve a technical problem using a technical solution.

4. Conclusion

We determine that Petitioner fails to show sufficiently that the '112 patent is not for a technological invention. We, thus, conclude that Petitioner fails to demonstrate sufficiently that the '112 patent is a CBM patent eligible for review.

III. ORDER

It is hereby:

ORDERED that a covered business method patent review is *denied*.

For PETITIONER:

Matthew I. Kreeger
Diek Van Nort
Fahd Hussein Patel
MORRISON & FOERSTER LLP
mkreeger@mof.com
dvannort@mof.com
fpatel@mof.com

For PATENT OWNER:

Robert E. Sokohl
Richard D. Coller III
Joseph E. Mutschelknaus
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
rsokohl-PTAB@sternekessler.com
rcoller-PTAB@sternekessler.com
jmutsche-PTAB@sternekessler.com