

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MIAMI INTERNATIONAL HOLDINGS, INC.;
MIAMI INTERNATIONAL SECURITIES EXCHANGE, LLC;
MIAX PEARL, LLC; AND
MIAMI INTERNATIONAL TECHNOLOGIES, LLC,
Petitioner,

v.

NASDAQ ISE, LLC,
Patent Owner.

Case CBM2018-00031
Patent 7,246,093 B1

Before MICHAEL W. KIM, FRANCES L. IPPOLITO, and
KEVIN C. TROCK, *Administrative Patent Judges*.

IPPOLITO, *Administrative Patent Judge*.

DECISION
Institution of Covered Business Method Patent Review
35 U.S.C. § 324(a)

I. INTRODUCTION

Miami International Holdings, Inc.; Miami International Securities Exchange, LLC; MIAX Pearl, LLC; and Miami International Technologies, LLC (collectively, “Petitioner”) filed a Petition (Paper 2, “Pet.”) seeking a covered business method (“CBM”) patent review of U.S. Patent No. 7,246,093 B1 (Ex. 1001, “the ’093 patent”), pursuant to § 18 of the Leahy-Smith America Invents Act (“AIA”). In the Petition, Petitioner challenges claims 1–9 of the ’093 patent as unpatentable under 35 U.S.C. § 101 for claiming patent-ineligible subject matter. Pet. 1, 22. Nasdaq ISE, LLC (“Patent Owner”), filed a Preliminary Response (Paper 6, “Prelim. Resp.”) opposing institution of a CBM patent review. Additionally, pursuant to our prior authorization (Paper 8), the parties filed briefing related to the issue of Petitioner’s standing to seek a covered business method patent review. Papers 9–10.

35 U.S.C. § 324(a) provides the statutory authority for a post-grant review, which states, “[t]he Director may not authorize a post-grant review to be instituted unless the Director determines that . . . it is more likely than not that at least 1 of the claims challenged in the petition is unpatentable.”

Upon consideration of the record before us, we determine that Petitioner has demonstrated sufficiently that it is more likely than not that claims 1–9 are unpatentable under 35 U.S.C. § 101 as directed to non-statutory subject matter. Therefore, we institute a CBM patent review for claims 1–9 of the ’093 patent based upon Petitioner’s challenge.

A. *Related Matters*

The parties represent that the ’093 patent is the subject of a federal district court proceeding in *Nasdaq, Inc., v. Miami Int’l Holdings, Inc.*, Case

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Patent 7,246,093 B1

No. 3:17-cv-06664 (NJD), filed September 1, 2017. Paper 5, 1; Pet. 4.
Additionally, Patent Owner provides the following table indicating patents involved in the above-referenced litigation for which Petitioner has submitted petitions:

Proceeding No.	U.S. Patent No.	Petition Filing Date
CBM2018-00020	8,386,371	March 27, 2018
CBM2018-00021	6,618,707	March 23, 2018
CBM2018-00028	7,599,875	March 27, 2018
CBM2018-00029	7,747,506	March 27, 2018
CBM2018-00030	7,921,051	March 29, 2018
CBM2018-00032	7,933,827	April 2, 2018

Paper 5, 2.

Patent Owner further asserts that related U.S. Patent No. 6,618,707 (“the ’707 patent”) was at issue in *Chi. Bd. Options Exch., Inc. v. Int’l Sec. Exch., LLC*, 677 F.3d 1361 (Fed. Cir 2012) (“*CBOE I*”) and *Chi. Bd. Options Exch., Inc. v. Int’l Sec. Exch., LLC*, 748 F.3d 1134 (Fed. Cir 2014) (“*CBOE II*”). Prelim. Resp. 5. Patent Owner adds that both appeals in *CBOE I* and *CBOE II* arose from the same district court litigation: *Chi. Bd. Options Exch., Inc. v. Int’l Sec. Exch.*, No. 07-cv-00623 (N.D. Ill.) (“*CBOE* district court litigation”). *Id.*

B. The ’093 Patent

The ’093 patent, titled “Automated Exchange for Trading Derivative Securities,” discloses an invention that “relates generally to markets for the exchange of securities.” Ex. 1001, 1:16–17. Figure 1 is reproduced below.

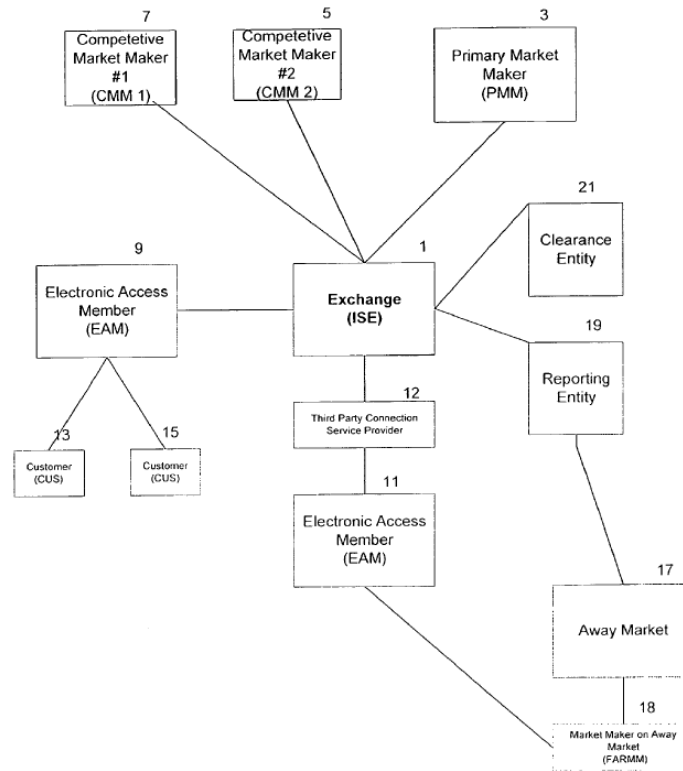


Fig. 1

Figure 1 shows Exchange (ISE) 1 connected with several entities, e.g. Clearance Entity 21, Reporting Entity 19. Ex. 1001, 7:39–40. According to the '093 patent, an order placed on exchange 1 may specify order size, that is, an integral number of contracts, and a bid price or offer price. Ex. 1001, 7:41–43. Orders may be communicated to exchange 1 by Primary Market Maker (“PMM”) 3, one or more Competitive Market Makers (“CMM”) 5, 7, and one or more Electronic Access Member (“EAM”) 9, 11. *Id.* at 7:49–53.

Exchange 1 is connected to reporting entity 19, which may collect price and size data for all options traded on exchanges in the United States and provide this data to subscribers. *Id.* at 7:57–61. Exchange 1 communicates the prices of each trade to reporting entity 19, which collects

price data on underlying stock markets. *Id.* at 7:61–8:1. Additionally, exchange 1 is also connected with clearance entity 21 that performs the transactions necessary to clear the trade, including guaranteeing payment to the seller and accountability for the buyer. *Id.* at 8:13–18.

The '093 patent further teaches that “[t]elecommunication links between the exchange and each of the entities 3–21 can be made by any of a number of known electronic data exchange mechanisms.” Ex. 1001, 8:19–21. “For example, exchange 1 may communicate to outside entities 3–21 via local area networks, wide area networks, direct electronic or optical cable connections, dial-up telephone connections, or a shared network connection including the Internet using wire and wireless based systems.” *Id.* at 8:21–26. “Data can be exchanged between exchange 1 and entities 3–21 via data terminals located at the entities 3–21.” *Id.* at 8:27–28. “Data terminals may be any of a number of known data processing machines, for example, computer workstations, personal computers, minicomputers, mainframe computers, personal digital assistants, web TV boxes, and the like.” *Id.* at 8:29–32. “Terminals at the entities 3–21 include software capable of communication with exchange 1 using a predetermined data format.” *Id.* at 8:33–35.

The '093 patent also discloses that “exchange 1 may be implemented on a general-purpose computer under the control of a software program.” Ex. 1001, 8:46–47. Exchange 1 may, further, be implemented on an Open VMS system running the OM Click Exchange™ software manufactured by OM Technology AB. *Id.* at 8:47–51. The '093 patent further discloses that exchange 1 may be “implemented on a network of general-purpose computers each under the control of a separate software program or on a

system of interconnected parallel processors.” *Id.* at 8:51–54. The ’093 patent also states that “it is believed that suitable software for performing the various functions described herein can be designed and constructed by computer programmers of ordinary skill.” *Id.* at 8:54–57.

Figure 2 is reproduced below.

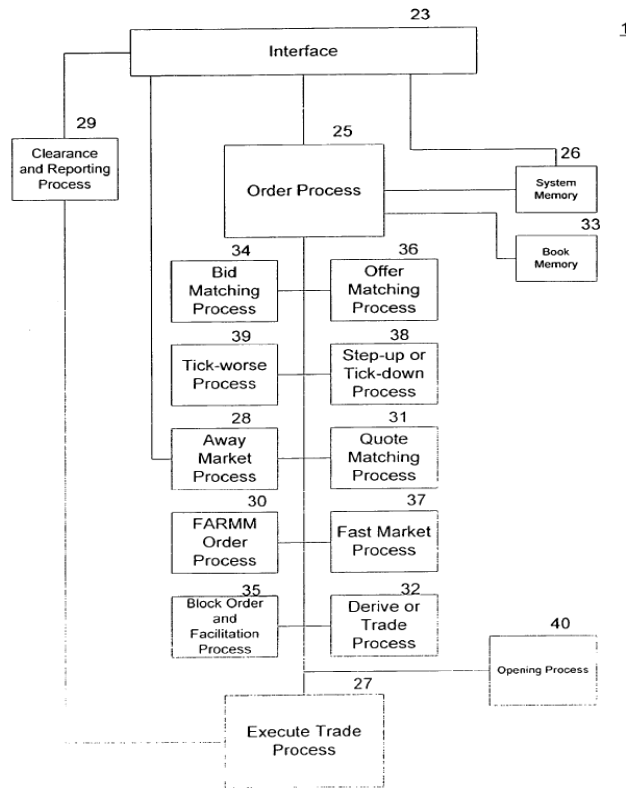


Fig. 2

Figure 2 shows exchange 1 in detail. Ex. 1001, 6:37–38. “Connections between exchange 1 and entities 3–21 are made via a data interface 23.” *Id.* at 8:58–60. “[D]ata interface 23 performs error checking, data compression, encryption and mediates the exchange of data (including orders) between exchange 1 and entities 3–21.” *Id.* at 8:60–65. Order and quotation information received via interface 23 is sent to order process 25. *Id.* at 8:66–9:1. “[O]rder process 25 checks to see if the order or quotation is valid

according to programmable parameters that reflect the particular trading rules of the entity administrating the invention.” *Id.* at 9:1–4.

“[B]lock order and facilitation process 35 is an optional process that an EAM 9, 11 can choose to use when executing large-size orders.”

Ex. 1001, 11:48–50. “Block orders are sent by order process 25 to block order and facilitation process 35, [then] block order and facilitation process 35 sends a message containing certain information describing the order to PMM 3 and CMMs 5, 7, as well as to EAMs 9, 11 with proprietary orders at the best price.” *Id.* at 11:52–57. “Block order and facilitation process 35 allows those participants that received the message to enter individual bids or offers against the block order in the form of anonymous messages that are stored in a separate memory function.” *Id.* at 11:57–64. “Parties receiving the block order information respond within a limited time period with bids and offer messages.” *Id.* at 12:4–5.

C. Illustrative Claim

Of the challenged claims 1–9, claims 1, 3, and 5 are independent. Independent claim 1, reproduced below, is illustrative of the claimed subject matter:

1. An automated exchange for operating a market to buy or sell a quantity of a financial instrument within the market, the automated exchange comprising:

a computer interface adapted to receive from a first market participant a block order and a selected subset of information about the block order to be transmitted to second market participants; to transmit the selected subset of information about the block order to the second market participants; and to receive responses to the transmitted information from the second market participants, wherein the order includes an offer to sell or a bid to purchase a predetermined quantity of the instrument at an

order price and wherein the selected subset of information excludes at least one of the side, predetermined quantity and order price; and

a computer processor coupled with the interface to control the interface to transmit the selected subset of information about the order to the second market participants; and to control the interface to receive a plurality of responses from the second market participants within a predetermined time period, the time period being determined prior to, or at the time of, receiving the order,

wherein the processor is programmed with an algorithm for determining if the responses received during the time period are sufficient so that a trade can take place; for allocating the order among the plurality of the responses received during the time period; for determining a price at which to execute the trade; and for executing the trade for the instrument between the order and the plurality of the responses following the time period.

D. The Asserted Ground

Petitioner contends claims 1–9 of the '093 patent are unpatentable under 35 U.S.C. § 101 as directed to patent-ineligible subject matter. Pet. 22–77.

E. Claim Construction

Petitioner does not propose any express constructions for any claim terms. Pet. 21. Petitioner notes that “the '093 Patent will expire during these proceedings.” *Id.*

Patent Owner contends that Petitioner failed to comply with 37 C.F.R. § 42.304(b)(3)–(4) because Petitioner did not construe any claim terms in the Petition, and did not apprise the Board of the Federal Circuit’s previous construction of the term “automated exchange” in *CBOE I* and *CBOE II*, which involved the parent of the '093 patent, the '707 patent. Prelim. Resp. 5.

Patent Owner adds that the term “automated exchange,” recited in claims 1 and 2 of the ’093 patent, should be given the same construction in *CBOE I* and *CBOE II* because the ’093 patent and the ’707 patent share the same specification. Prelim. Resp. 6. Patent Owner also asserts that “automated network” (claims 3–4) and “automated trading system” (claims 5–9) should be construed in a similar manner. *Id.*

Initially, we are not persuaded that Petitioner’s lack of an express construction of claim terms in the Petition is fatal. In the Petition, Petitioner explains that “the Board likely needs no guidance as to the meaning of any term, and that each of the Challenged Claims would be held invalid under any reasonable claim construction.” Pet. 21. Essentially, Petitioner takes the position that an express claim construction is not necessary to resolve the instant dispute, and, thus, has not provided express constructions that it deems unnecessary. *See Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) (only terms in controversy must be construed and only to the extent necessary to resolve the controversy). Although Patent Owner may disagree with Petitioner’s position, we are not persuaded that Petitioner has not complied with 37 C.F.R. § 42.304 in this regard.

Moreover, we are not persuaded that express construction of “automated network,” and “automated trading system” is necessary to resolve the § 101 dispute between the parties. Petitioner’s position is that claims 1–9 are patent-ineligible under any reasonable construction. *See* Pet. 21.

Additionally, for the purposes of this Decision, we adopt Patent Owner’s proposed construction of “automated exchange” that is provided by the Federal Circuit in *CBOE I* and *CBOE II*, and, further, we adopt the

Federal Circuit’s reasoning for its construction of the same term in the parent ’707 patent that shares the same specification as the ’093 patent. *See CBOE I*, 677 F.3d at 1373 (“[W]e construe ‘automated exchange’ to mean ‘a system for executing trades of financial instruments that is fully computerized, such that it does not include matching or allocating through the use of open-outcry.’”); *see CBOE II*, 748 F.3d at 1138–1139. More specifically, the Federal Circuit determined that

[t]he [’707] Patent describes a system of trading options contracts in these floor-based environments as an “open-outcry” system because trading takes place through oral communications between market professionals at a central location in open view of other market professionals. ’707 Patent, col.1 ll.24–28. The Patent characterizes the open-outcry system as “antiquated,” but it explains that because of efforts to preserve the traditional system, the transition to and use of computer-based technology on options exchanges has been slow. *Id.* col.1 ll.34–37. While floor-based exchanges employ some level of automation in the execution and allocation of orders, the specification recites that such exchanges have “inherent inadequacies” and “deficiencies [that] make it difficult to assess market depth and liquidity [which] ultimately impact the quality of the prices customers receive for their order.” *Id.* col.2 ll.19–24, 59–67. The Patent further discloses that the disjointed nature of the various manual, and occasionally automated, systems used in floor-based exchanges cultivate these deficiencies, and again, make it difficult to assess the true market depth and liquidity ultimately impacting the quality of prices. *Id.* col.4 ll.47–51. The Patent suggests that the increasing volume of trades in options contracts, as well as the speed at which price information of underlying stocks is transmitted to consumers, have increased the demand for faster execution of trades. *Id.* col.4 ll.34–37. The Patent proposes an automated exchange for the express purpose of remedying these perceived deficiencies.

The ’707 Patent thus disavows the traditional open-outcry or floor-based trading systems. There is no other way to interpret

the listing in the specification of the many reasons why manual and partially automated exchanges cannot sustain the growing demands of the market. Indeed, the specification goes well beyond expressing the patentee's preference for a fully automated exchange over a manual or a partially automated one, and its repeated derogatory statements about the latter reasonably may be viewed as a disavowal of that subject matter from the scope of the Patent's claims. Honeywell Int'l, Inc., 452 F.3d at 1319.

CBOE I, 677 F.3d at 1372 (emphasis added). Accordingly, we construe “automated exchange” to mean “a system for executing trades of financial instruments that is fully computerized, such that it does not include matching or allocating through the use of open-outcry.”

For the purposes of this Decision, we determine that no other express claim construction of any claim term is necessary. *See Vivid Techs.*, 200 F.3d at 803.

II. COVERED BUSINESS METHOD

A. *Standing to File a Petition for Covered Business Method Patent Review*

Under § 18(a)(1)(B) of the America Invents Act (AIA), “[a] person may not file a petition for a transitional proceeding with respect to a covered business method patent unless the person or the person’s real party in interest or privy has been sued for infringement of the patent or has been charged with infringement under that patent.” AIA § 18(a)(1)(B) (emphasis added); *see also* 37 C.F.R. § 42.302(a).

Additionally, pursuant to 37 C.F.R. § 42.304(a), our rules require that the petitioner must demonstrate its standing to seek a covered business method patent review in the petition. More specifically, Rule 304 provides that the content of the petition includes:

- (a) Grounds for standing. The petitioner must demonstrate that

the patent for which review is sought is a covered business method patent, and that the petitioner meets the eligibility requirements of § 42.302.

Id. Rule 302 provides three (3) eligibility requirements, which must be satisfied for Petitioner's standing. These are:

(a) A petitioner may not file with the Office a petition to institute a covered business method patent review of the patent unless the petitioner, the petitioner's real party-in-interest, or a privy of the petitioner has been sued for infringement of the patent or has been charged with infringement under that patent. Charged with infringement means a real and substantial controversy regarding infringement of a covered business method patent exists such that the petitioner would have standing to bring a declaratory judgment action in Federal court.

(b) A petitioner may not file a petition to institute a covered business method patent review of the patent where the petitioner, the petitioner's real party-in-interest, or a privy of the petitioner is estopped from challenging the claims on the grounds identified in the petition.

(c) A petitioner may not file a petition to institute a covered business method patent review of the patent where, before the date on which the petition is filed, the petitioner or real party-in-interest filed a civil action challenging the validity of a claim of the patent.

37 C.F.R. § 42.302(a)–(c).

With regard to Rule 302, the U.S. Patent and Trademark Office (“Office”) has explained in comments to the final rules governing covered business method patent review that

[t]o establish standing, a petitioner, at a minimum, would be required to certify with explanation that the patent is a covered business method patent and that the petitioner meets the eligibility requirements of § 42.302. This requirement is to ensure that a party has standing to file the covered business method patent review and would help prevent spuriously

instituted reviews. Facially improper standing is a basis for denying the petition without proceeding to the merits of the decision.

Changes to Implement Inter Partes Review Proceedings, Post-Grant Review Proceedings, and Transitional Program for Covered Business Method Patents, 77 Fed. Reg. 48,680, 48,709 (Aug. 14, 2012) (Response to Comment 102).

With this background in mind, we turn our review to the contents of the Petition in the instant proceeding.

1. Standing under 37 C.F.R. § 42.302(a)

Petitioner contends that the standing requirement for sub-section (a) is satisfied because Patent Owner has asserted that Petitioner allegedly infringes the '093 patent in Civil Action No. 3:17-cv-06664-BRM-DEA, filed September 1, 2017, in the United States District Court for the District of New Jersey. Pet. 15.

Based on the current record, we are persuaded that Petitioner has satisfied 37 C.F.R. § 42.302(a).

2. Standing under 37 C.F.R. § 42.302(b) and (c)

In the Petition, Petitioner states:

V. GROUNDS FOR STANDING (37 CFR 42.302)

In Civil Action No. 3:17-cv-06664-BRM-DEA, filed September 1, 2017, in the United States District Court for the District of New Jersey, NASDAQ ISE asserted that Petitioner allegedly infringed the '093 Patent. Accordingly, under 35 U.S.C. § 321 and 37 C.F.R. § 42.302, Petitioner has standing to file this petition to institute CBM review of the Challenged Claims. *See, e.g., Lib. Mut. Ins. Co. v. Progress. Cas. Ins. Co.*, CBM2012-00004, Pap. No. 10 at 3 (PTAB Jan 25, 2013).

As discussed further below, the '093 Patent is eligible for

CBM review because its claims are directed toward management of a financial product or service, and because the subject matter of those claims does not fall under the exception for technological inventions.

Pet. 15.

Based on these statements in the Petition, Petitioner argues that there is no dispute that Petitioner meets the substantive requirements of 37 C.F.R. § 42.302(b)–(c). Paper 9, 1–2. Relatedly, Petitioner argues that the case cited by Patent Owner, *Global Tel*Link Corp. v. Securus Technologies, Inc.*, CBM2014-00166, Paper 17, 4–9 (PTAB Feb. 6, 2015), is distinguishable because, in that proceeding, there was a dispute as to whether the substance of 37 C.F.R. § 42.302(a) was met, where no such dispute exists here. *Id.* at 3. Patent Owner responds that it is not its burden to prove whether Petitioner meets the requirements of 37 C.F.R. § 42.302, and, in any case, does not concede that Petitioner meets them. Paper 10, 2–3.

On this record, we agree with Petitioner. Petitioner has certified, on the record, that it meets the substantive requirements of 37 C.F.R. § 42.302. While Patent Owner is correct that the burden is on Petitioner to make such a showing, Patent Owner has not clearly argued how the Petitioner has failed to meet this burden. We acknowledge that Patent Owner does not concede this point, and note that it will have further opportunities to provide facts and assertions in opposition during trial.

Petitioner next argues, given that Petitioner does have standing, the language used in the Petition is sufficient to indicate that Petitioner meets all the standing requirements of 37 C.F.R. § 42.302, even if each sub-section is not identified separately, and to find otherwise would improperly, and

unjustly, exalt form over substance. Paper 9, 1–2. Patent Owner responds that by using the language “at a minimum . . . certify[ing] with explanation,” the aforementioned rules and regulations do indeed require more than what Petitioner has set forth. Paper 10, 3.

Patent Owner’s assertion has merit, in that the language “at a minimum . . . certify[ing] with explanation” would appear to require more than a citation to the rule itself. What is unclear, however, is how much more is required. *Global Tel*Link* indicates that, to show that the substantive requirements of 37 C.F.R. § 42.302(a) are met, an identification of the underlying lawsuit is sufficient. *Global Tel*Link*, Paper 17 at 4–9. We are unaware of any such guidance, however, for 37 C.F.R. §§ 42.302(b) and (c).

To that end, it is instructive that Patent Owner has indicated, in petitions of other proceedings, that language consisting essentially of the provisions of 37 C.F.R. §§ 42.302(b) and (c), without any further elaboration, is sufficient explanation to confer certification. We are persuaded by Petitioner’s argument that, if that is all Patent Owner seeks, it would be improper and unjust, and would exalt form over substance, to deny a petition solely for failing to repeat the language of 37 C.F.R. §§ 42.302(b) and (c), especially where Petitioner has clarified that citation to 37 C.F.R. § 42.302 in the Petition encompasses all sub-sections as well. On this record, and at this juncture in the proceeding, we are persuaded that the statement in the Petition, that “under 35 U.S.C. § 321 and 37 C.F.R. § 42.302, Petitioner has standing to file this petition to institute CBM review of the Challenged Claims,” when coupled with the clarifications made by Petitioner in the record, is sufficient explanation to certify that Petitioner has

met the requirements of 37 C.F.R. §§ 42.302(b) and (c), even if the language of those rules is not repeated expressly in the Petition itself.

Petitioner further argues that Patent Owner is not prejudiced as there is no one-year statutory bar that applies, and the Board is not being asked to decide substantive issues prematurely. Paper 9, 2. Patent Owner responds that it is prejudiced because it had to expend time and effort to address this issue in its Preliminary Response. Paper 10, 3. While we acknowledge that Patent Owner may have suffered some prejudice in that regard, we determine that it is insufficient to outweigh the potential denial of a petition to a petitioner who otherwise has standing.¹

3. Whether the Omission is Clerical in Nature

In the alternative, Petitioner requests permission to make a clerical change to the Petition, permitted under 37 C.F.R. § 42.204(c)², so as to include an express statement that Petitioner meets the requirements of 37 C.F.R. §§ 42.302(b) and (c). Paper 9, 1–3. Petitioner asserts that the change requested is clerical in nature, because Petitioner refers to language in another petition filed, concerning the same parties, which includes language specific to 37 C.F.R. §§ 42.302(b) and (c), and further states that a previous iteration of the Petition expressly included such language. *Id.* at 3. Patent

¹ Relatedly, we note that Patent Owner certifies that “[t]his Patent Owner Preliminary Response complies with the type volume limitation of 18,700 words, comprising 7,203 words, excluding the parts exempted by 37 C.F.R. § 42.24(a)(1).” Prelim Resp. 36. Accordingly, Patent Owner was not prejudiced, for example, by having to forego arguments that could otherwise have been made due to word limits.

² Petitioner cites to 37 C.F.R. § 42.104(c), however, as this concerns a covered business method patent review, the corresponding rule is 37 C.F.R. § 42.204(c).

Owner responds that Petitioner carries the burden of establishing that the error made was clerical, a burden that it has failed to meet. Paper 10, 1. In particular, Patent Owner asserts that Petitioner's explanation of the sequence of petition iterations actually works against it, because it "simply [establishes] that MIAX knew it was required to certify, not that MIAX's failure to certify resulted from a clerical error." *Id.* at 2.

In furtherance of its arguments concerning its request to correct the purported clerical error under 37 C.F.R. § 42.204(c), Petitioner identifies several instances where the Board has granted such relief in other proceedings. Paper 9, 2–3. Patent Owner responds that none of the instances identified by Petitioner involve the requirements of 37 C.F.R. § 42.302. Paper 10, 2.

We agree with Patent Owner that Petitioner has not met its burden of showing that the requested change is clerical in nature, and, thus, one that can be corrected under 37 C.F.R. § 42.204(c). Petitioner's assertion, essentially, is that the omission was inadvertent, which we find credible. Petitioner has not explained adequately, however, how this inadvertence is either clerical or typographical. We have also reviewed the papers cited by Petitioner, and agree with Patent Owner that the fact patterns therein differ materially from the instant proceeding. For these reasons, Petitioner's request to make a clerical change to the Petition, permitted under 37 C.F.R. § 42.204(c), to include an express statement that Petitioner meets the requirements of 37 C.F.R. §§ 42.302(b) and (c), is denied.

B. Covered Business Method Patent Review Eligibility

Section 18 of the AIA further provides that

the term “covered business method patent” means 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* 37 C.F.R. § 42.301(a). A patent need have only one claim directed to a covered business method to be eligible for 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 (Aug. 14, 2012) (“Final Rule”). Thus, we must “examine the claims when deciding whether a patent is a CBM patent.” *Blue Calypso, LLC v. Groupon, Inc.*, 815 F.3d 1331, 1340 (Fed. Cir. 2016) (emphasis omitted).

1. Used in the Practice, Administration, or Management of a Financial Product or Service

Petitioner asserts that all claims of the ’093 patent claim methods that are expressly financial in nature, because claims 1–9 are all directed to the management of a financial product or service, specifically an automated exchange, network, or trading system “to buy or sell a quantity of [a/the] financial instrument. Pet. 15–16 (citing Ex. 1001, 29:24–32:10). In its Preliminary Response, Patent Owner argues that Petitioner did not provide any substantive analysis that the preambles of the claims are limiting. Prelim. Resp. 11–12.

We have adopted the Federal Circuit’s (and the Patent Owner’s proffered) construction of the preamble term “automated exchange,” recited

in claim 1, which we have construed as “a system for executing trades of financial instruments that is fully computerized, such that it does not include matching or allocating through the use of open-outcry.” As determined by the Federal Circuit, this construction limits the scope of claim 1, because “it does not include matching or allocating through the use of open-outcry.” As such, we are persuaded that the record supports Petitioner’s reliance on the preamble of claim 1 is limiting and, as directed to “trades of financial instruments.” *See Georgetown Rail Equip. Co. v. Holland L.P.*, 867 F.3d 1229, 1236 (Fed. Cir. 2017) (“[A] preamble may be limiting if . . . the preamble ‘is essential to understand limitations or terms in the claim body’”) (citing *Catalina Mktg. Int’l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002)).

Moreover, our reading of the preamble is consistent with the language of claim 1 as a whole. For example, claim 1 further recites

a computer interface adapted to receive from a first *market participant* a block *order* and a selected subset of information about the block order to be transmitted to second market participants; to transmit the selected subset of information about the block order to the second market participants; and to receive responses to the transmitted information from the second market participants, wherein the order includes an *offer to sell or a bid to purchase a predetermined quantity of the instrument at an order price* and wherein the selected subset of information excludes at least one of the side, predetermined quantity and order price;

Emphasis added. These limitations are expressly directed to an offer to sell or bid to purchase “the instrument,” which is the “*financial instrument*” recited in the preamble. Thus, the record shows that at least claim 1 recites an “automated exchange” that comprises an interface employed for receiving and transmitting order information that includes an offer to sell or a bid to

purchase a predetermined quantity of a financial instrument. The claimed apparatus is not “incidental to” or “complementary to” a financial activity because the claims are directed to the trading of financial instruments. *See Unwired Planet, LLC v. Google Inc.*, 841 F.3d 1376, 1382 (Fed. Cir. 2016).

Therefore, we determine, for purposes of this decision, that at least one claim of the ’093 patent is directed to “a method . . . for performing data processing or other operations used in the practice, administration, or management of a financial product or service.” AIA § 18(d)(1).

2. Technological Invention

Under AIA § 18(d)(1), “the term ‘covered business method patent’ . . . does not include patents for technological inventions.” Under 37 C.F.R. § 42.301(b), “[i]n determining whether a patent is for a technological invention,” we consider “whether [1] the claimed subject matter as a whole recites a technological feature that is novel and unobvious over the prior art, and [2] solves a technical problem using a technical solution,” respectively, the first and second prongs of the technical invention exception.

In general, the Office Patent Trial Practice Guide provides the following guidance with respect to claim content that typically would exclude a patent from the category of 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 the 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).

Petitioner argues that “[t]he claims of the ’093 [p]atent fail to recite novel and unobvious technology, and fail to recite a technical solution to a technical problem.” Pet. 17. Petitioner asserts that independent claims of the ’093 patent recite generic computer-related terms such as “interface,” “processor,” “terminals,” and “memory,” which Petitioner contends “are nothing more than known devices or generic components that could be constructed by one of ordinary skill in the art at the ’093 Patent’s Critical Date.” *Id.* Additionally, Petitioner notes that “data terminals connected to exchange 1 ‘may be any of a number of known data processing machines, for example, computer workstations, personal computers, minicomputers, mainframe computers, personal digital assistants, web TV boxes, and the like.’” *Id.* at 18 (quoting Ex. 1001, 8:27–33).

In response, Patent Owner asserts that: (1) Petitioner did not identify and analyze any specific claim or claims; (2) “technological improvements in the computing field may be implemented in hardware or in software”; and (3) Petitioner takes the disclosure of the ’093 patent out of context. Prelim. Resp. 13–15.

In viewing the claim language and disclosure of the ’093 patent, we are persuaded by Petitioner’s arguments that the claimed features are not novel or nonobvious technological features. To start, we discern that the express language of the claims, such as claim 1, recites an “automated exchange,” including a “computer interface,” and “computer processor.” Ex. 1001, claim 1. According to the ’093 patent, the exchange (and its components) were generic computer components that were known and

available. For example, the '093 patent states that

[t]he exchange 1 may be implemented on a general-purpose computer under the control of a software program. According to one embodiment of the invention, the exchange 1 is implemented on an Open VMS system running the OM Click Exchange™ software manufactured by OM Technology AB.

Ex. 1001, 8:46–51 (emphasis added). Further, the '093 patent discloses that exchange 1 operates over known communication or computer networks.

Id. at 8:27–38.

Based on the preliminary record, we determine that Petitioner sufficiently shows that at least claim 1, discussed above, does not recite a technological feature that is novel and unobvious over the prior art. Given that determination, we need not reach the second prong of whether the claim solves a technical problem using a technical solution. Based on the foregoing, on this preliminary record, Petitioner persuasively shows that the '093 patent is not exempt from CBM review based on a “technological invention” exception under 37 C.F.R. § 42.301(b).

III. 35 U.S.C. § 101

A. Principles of Law

Section 101 sets forth four categories of patent eligible subject matter: “Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” 35 U.S.C. § 101. The Supreme Court has specified three judicial exceptions to the broad categories of 35 U.S.C. § 101: “laws of nature, natural phenomena, and abstract ideas.” *Alice Corp.*

Pty. Ltd. v. CLS Bank Int'l, 134 S. Ct. 2347, 2354 (2014) (citation omitted); *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972) (“Phenomena of nature, though just discovered, mental processes, and abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work.”). Notwithstanding that a law of nature or an abstract idea, by itself, is not patentable, the practical application of these concepts may be deserving of patent protection. *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 70–73 (2012).

The Court clarified the process for analyzing claims to determine whether they are directed to patent-ineligible subject matter. *Alice*, 134 S. Ct. 2347. In *Alice*, the Court applied the framework set forth previously in *Mayo*, “for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of [these] concepts.” *Alice*, 134 S. Ct. at 2355. The first step in the analysis is to “determine whether the claims at issue are directed to one of those patent-ineligible concepts.” *Id.* If the claims are directed to a patent-ineligible concept, the second step in the analysis is to consider the elements of the claims “individually and ‘as an ordered combination’” to determine whether the additional elements “‘transform the nature of the claim’ into a patent-eligible application.” *Id.* (quoting *Mayo*, 566 U.S. at 78–79). In other words, the second step is to “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.* (quoting *Mayo*, 566 U.S. at 72–73) (alterations in original). If the elements involve “well-understood, routine, [and] conventional activity previously engaged in by researchers in the

field,” *Mayo*, 566 U.S. at 73, they do not constitute an “inventive concept.”

Noting that the two stages involve “overlapping scrutiny of the content of the claims,” the Federal Circuit has described “the first-stage inquiry as looking at the ‘focus’ of the claims, their ‘character as a whole,’ and the second-stage inquiry (where reached) as looking more precisely at what the claim elements add—specifically, whether, in the Supreme Court’s terms, they identify an ‘inventive concept’ in the application of the ineligible matter to which (by assumption at stage two) the claim is directed.” *Electric Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016).

B. Alice-Mayo, First Step

As the first step of our analysis, we determine whether claims 1–9 of the ’093 patent are directed to a patent-ineligible concept, such as an abstract idea. *See Alice*, 134 S. Ct. at 2355. To that end, we consider the claims “in light of the specification, based on whether ‘their character as a whole is directed to excluded subject matter.’” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016) (citing *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015)). Below, we discuss claim 1, which is representative of the subject matter recited in claims 2–9.

With respect to independent claim 1, Petitioner asserts that the limitations cover the functional process of:

- (a) receiving a block order and a selected subset of information about the block order from a first market participant;
- (b) transmitting the selected subset of information about the block order to second market participants;
- (c) receiving responses to the selected subset of information from the second market participants;
- (d) determining if the responses received during a predetermined time period are sufficient;
- (e) allocating the order to the responses received during the predetermined time period;
- (f) determining a price at which to execute a trade; and

(g) executing the trade for the instrument between the order and the responses.

Pet. 31 (citing Ex. 1001, 29:24–56, Ex. 1003 ¶¶ 49–50). Considering these limitations as a whole, Petitioner contends that claim 1 combines “broad and generalized limitations to implement, in an automated way, the *abstract idea of allocating and executing an order based on selected information and responses that are received within a predetermined time period.*” *Id.* at 32 (emphasis added).

Petitioner adds that allocation and execution of orders is a fundamental economic practice long prevalent in our system of commerce that was traditionally performed by human agents and remains a building block of the modern economy. Pet. at 32–33. For support, Petitioner refers to Patent Owner’s statements during prosecution distinguishing pending claims over the prior art. Specifically, Patent Owner stated:

Traditional trading systems where securities were traded based on face-to-face negotiations between individual traders have, of course, existed long before the present invention. Typically, an investor wishing to buy or sell a security would approach a brokerage house, for example, Merrill Lynch, with access to traders on the floor of a physical exchange, like the New York Stock Exchange. Merrill Lynch sends orders to its trader on the floor on behalf of its customers. The floor trader finds a counter party, that is, another floor trader with an order that can trade against the customer’s order. The price of the trade is set by the marketplace. Where a large order is submitted to the floor, a trader may enlist the help of a specialist, that is, a person on the exchange floor with authority to conduct an auction for the order among traders. Whether the trade is negotiated between individual floor traders or at a specialist’s auction, the price will depend on the market. Where a particular security is in great demand and where the amount available for sale is limited, the offer price, that is, the price investors are willing to pay, will rise. Where large amounts of the security are available for sale, the

bid price, that is, the price investors are willing to pay for the security, will typically fall.

In the past, large orders could also be traded “upstairs.” That is, an order submitted to a broker like Merrill Lynch could be executed against Merrill Lynch’s own account. Because the deal takes place only between the investor and the broker, no information about the order is revealed to the marketplace. The price of the trade is negotiated between these two parties. The investor maintains complete anonymity but does not have the opportunity for price improvement that could occur if the order were exposed to the marketplace.

ECNs, traditional floor trading and trading “upstairs” by brokerage houses present problems solved by the present invention. In particular, the present invention enhances the ability of investors to buy and sell large blocks of securities. The invention provides a mechanism whereby an investor can select how much information about an order to release to the marketplace to achieve a particular trading strategy. The invention also provides a way for brokers to submit large orders to the marketplace for potential price improvement while at the same time guaranteeing that it will trade against some portion of the order.

Ex. 1002, 67–68.

Petitioner acknowledges that “[t]he differences between prior trading practices and the block order and facilitation process claimed in the ’093 Patent is the amount of information selected and communicated with an order and the execution of a trade for the order based on the provided information.” Pet. 36. Petitioner, however, asserts that for block orders, information could be withheld to provide anonymity. *Id.* (citing Ex. 1003 ¶ 55).

In response, Patent Owner argues that Petitioner “grossly oversimplified the challenged claims” by paraphrasing claim language and focusing on functional aspects of limitations. Prelim. Resp. 22–24. Patent

Owner further argues that “fully computerized systems” were not longstanding, fundamental economic concepts or mere automation of floor-based trading processes. Prelim. Resp. 24–26, *see id.* at 20 (“[S]pecific trading processes that the claimed systems handle, e.g., block orders, were not typically handled by electronic exchanges at the time of the invention.”) (citing Ex. 2001, 5). In this regard, Patent Owner cites *Trading Techs. Int’l, Inc. v. CQG, Inc.*, 2015 WL 774655, 675 Fed. App’x 1001 (Fed. Cir. 2017), as confirmation that electronic trading “using fully automated exchanges was in its infancy in the 1990s,” and that electronic trading is very different from open outcry pits. *Id.* at 24, 26. Patent Owner also asserts that the challenged claims recite fully computerized systems implementing “complex” software executing on “a general purpose computer,” “a network of general-purpose computers,” or “a system of interconnected parallel processors.” *Id.* at 19–20. Patent Owner adds that the complex software required by the claims includes algorithms for operating the fully computerized systems as well as algorithms for executing specific trading processes in a prescribed manner. *Id.* at 20.

Based on the preliminary record, Petitioner has the more persuasive position for the purposes of this Decision. Starting with the preamble, we note that claim 1 is directed to the fundamental economic practice of executing a trade or an order. The preamble of claim 1 recites an “automated exchange for operating *a market to buy or sell a quantity of a financial instrument within the market.*” Emphasis added. As discussed above, for the purposes of this Decision, we construe “automated exchange” to mean “a system for *executing trades of financial instruments* that is fully computerized, such that it does not include matching or allocating through

the use of open-outcry.” Emphasis added.

Similarly, the remainder of claim 1 is consistent with Petitioner’s position, and proffered abstract idea. *See* Pet. 28–30. Claim 1 recites:

a computer interface adapted *to receive* from a first market participant a block order and a selected subset of information about the block order to be *transmitted* to second market participants; to *transmit* the selected subset of information about the block order to the second market participants; and to *receive* responses to the transmitted information from the second market participants, wherein the order includes an offer to sell or a bid to purchase a predetermined quantity of the instrument at an order price and wherein the selected subset of information excludes at least one of the side, predetermined quantity and order price.

Emphasis added. As recited above, the interface receives and transmits the block order, selected subset of information about the block order, and responses to market participants. Likewise, claim 1 recites a processor coupled with the interface that controls the interface “to transmit the selected subset of information about the order to the second market participants” and “to receive a plurality of responses from the second market participants within a predetermined time period.” Moreover, we note that claim 1 further requires that the processor is programmed to determine if a trade can take place, to *allocate* the order, to determine a price at which to *execute* the trade, and to execute the trade. *See* Ex. 1001, claim 1 (“the processor is programmed with an algorithm for determining if the responses received during the time period are sufficient so that a trade can take place; for allocating the order among the plurality of the responses received during the time period; for determining a price at which to execute the trade; and for executing the trade for the instrument between the order and the plurality of the responses following the time period”). Thus, we are persuaded that

claim 1, taken as a whole, focuses on the abstract concept of “allocating and executing orders based on selected information and responses that are received within a predetermined time period.”

Further, we agree with Petitioner, based on the preliminary record, that this concept is a fundamental economic practice long prevalent in our system of commerce. Patent Owner’s statements during prosecution confirm that traditional trading systems based on face-to-face negotiations between traders “existed long before the present invention” and that withholding the identity of the investor a prevalent economic practice. Ex. 1002, 67–68 (“In the past, large orders . . . submitted to a broker like Merrill Lynch could be executed against Merrill Lynch’s own account . . . [t]he investor *maintains complete anonymity* but does not have the opportunity for price improvement that could occur if the order were exposed to the marketplace.”) (emphasis added). Patent Owner’s statements are consistent with Petitioner’s proffered evidence, which provides that

[w]here traders negotiate face to face, large traders typically hire brokers to negotiate trades on their behalf to preserve their anonymity. Very large traders will often use multiple brokers to ensure that no broker knows the full extent of their interest, and to prevent other traders from inferring their interests by watching a single broker.

To avoid front-running that might be due to dishonest or incompetent brokers, large traders like to *use electronic trading systems that do not display their identities*.

Ex. 1018, 11 (emphasis added).

Additionally, for the purposes of this Decision, we are not persuaded by Patent Owner’s assertion that “complex” software is required by the claims that includes algorithms for executing *specific* trading processes in a *prescribed* manner. Prelim. Resp. 20 (citing Ex. 1001, claim 1, 26:46–

28:64). We observe that claim 1 does not appear to recite any specific algorithms for executing specific trading processes. For example, claim 1 recites, generally, that the processor is programmed with an algorithm that performs determining, allocating, and execution without claiming how this is accomplished. At a minimum, even assuming that such level of technical detail is provided in the Specification, claim 1 lacks the specificity Patent Owner claims.

Moreover, with respect to the components and functionalities recited in claim 1, the '093 patent states that

[t]he exchange 1 may be implemented on a general-purpose computer under the control of a software program. According to one embodiment of the invention, *the exchange 1 is implemented on an Open VMS system running the OM Click Exchange™ software manufactured by OM Technology AB.* Alternatively, the exchange 1 can be implemented on a network of general-purpose computers each under the control of a separate software program or on a system of interconnected parallel processors.

Ex. 1001, 8:46–54 (emphasis added). These statements, at a minimum, cast doubt on Patent Owner's position that *complex software* is claimed, when the '093 patent indicates that the exchange can be implemented on generic or well-known hardware/software. Further, the '093 patent teaches the transmission and receipt of data can also be performed using “any of a number of known data processing machines for example, computer workstations, personal computers, minicomputers, mainframe computers, personal digital assistants, web TV boxes, and the like.” *Id.* at 8:29–32; *see also id.* at 8:33–38 (“Terminals at the entities 3-21 include software capable of communication with the exchange 1 using a predetermined data format. According to one embodiment of the invention, *data is exchanged with the*

exchange 1 using OMnet™ API software manufactured by OM Technology AB of Stockholm, Sweden.”) (emphasis added). Thus, in this respect, the ’093 patent teaches that components, “computer interface” and “processor,” are generic, and that the functionalities such as the receipt, transmission, analysis, and manipulation of data are basic and routine.

We further note that, despite Patent Owner’s position, we are persuaded that claim 1 is also unlike those in *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016), which were focused on “a specific asserted improvement in computer animation, i.e., the automatic use of rules of a particular type.” 837 F.3d at 1314. As the court explained in *McRO*, “the claimed improvement [was] allowing computers to produce accurate and realistic lip synchronization and facial expressions in animated characters that previously could only be produced by human animators.” *Id.* at 1313 (internal quotation marks omitted.). In contrast, claim 1 does not address how the trading technology itself would be improved. Nor does claim 1 recite an improved interface or processor. Further, we observe that the Federal Circuit has instructed that merely automating manual processes or increasing the speed of a process where these purported improvements come solely from the capabilities of a general-purpose computer are not sufficient to show an improvement in computer-functionality. *FairWarning IP, LLC v. Iatric Sys.*, 839 F.3d 1089, 1095 (Fed. Cir. 2016); *see also Alice*, 134 S. Ct. at 2358 (“[T]he mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention . . . [nor] is limiting the use of an abstract idea to a particular technological environment” enough to impart patent eligibility.”).

Moreover, we are not persuaded that Patent Owner's reliance on the Federal Circuit's decision in *Trading Technologies* warrants a different result at this stage in the proceeding. There, the Federal Circuit agreed with the district court's finding that the "static price index" is "an inventive concept that allows traders to more efficiently and accurately place trades using this electronic trading system." *Trading Techs.*, 675 Fed. Appx. at 1004. The court found "that the specific structure and concordant functionality of the graphical user interface are removed from abstract ideas, as compared to conventional computer implementations of known procedures." *Id.* The court contrasted the specific structure (namely, a dynamic display of data aligned with a static display of prices, allowing traders the ability to more efficiently and accurately place trades on an electronic trading system) claimed in *Trading Technologies* with cases where "ineligible claims generally lack steps or limitations specific to a solution of a problem, or improvement in the functioning of technology." *Id.* at 1005.

Here, as discussed above, claim 1 lacks detail on the specific "complex" structure that presumably executes specific trading processes in a prescribed manner as asserted by Patent Owner. This is the case, even considering that claim 1 covers a system that is fully computerized, because claim 1 lacks any specific limitations (e.g., structure) beyond the recitation of generic and conventional components and functionality.

Although, in *Trading Technologies*, the Federal Circuit commented that "electronic trading has only been viable for a couple of decades, and its analog predecessor, open outcry trading systems, operate in a significantly different fashion," we do not take this statement to mean that all technology

in electronic trading is patent-eligible. Rather, with respect to block orders, Petitioner has sufficiently shown, for the purposes of this Decision, that traditional trading systems included the trade of block orders by brokers and electronic systems that could maintain the anonymity of investors (i.e., selected information). *See* Ex. 1002, 67–68; Ex. 1018, 11. Thus, we are persuaded, based on the current record, that claim 1 is directed to the abstract idea of “allocating and executing an order based on selected information and responses that are received within a predetermined time period,” which is a fundamental economic activity.

Additionally, viewing each of the remaining challenged claims 2–9 as a whole does not dissuade us from determining, for purposes of this Decision, that the challenged claims are all directed to the fundamental economic activity of “allocating and executing an order based on selected information and responses that are received within a predetermined time period.” *See* Pet. 39–77. For example, independent claim 3 is directed to an automated network, and recites generic components such as “terminals,” “memory,” and an “interface,” which receive, transmit, and store (i.e., accumulating) data in the form of an order, selected subset of information, and responses. Similar to claim 1, the recited “exchange computer” in claim 3 also determines whether to execute the trade and allocates the order. Claim 3 also recites a generic “timer” for determining when a *predetermined time period* has elapsed after the order is received. Thus, considering the claim language as a whole, claim 3 is also directed to the same abstract idea as claim 1. The remaining independent claim 5 and dependent claims 2, 4, and 6–9 recite similar limitations as those discussed above. Accordingly, the record sufficiently indicates that, at this stage, challenged claims 1–9 are

directed to a patent-ineligible abstract idea.

C. Alice-Mayo, Second Step

After determining that the challenged claims are directed to patent-ineligible abstract ideas, “we 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.” *Alice*, 134 S. Ct. at 2355 (internal quotation marks omitted). In the second step of the *Alice* inquiry, we “scrutinize the claim elements more microscopically” for additional elements that might be understood to “transform the nature of the claim” into a patent-eligible application of an abstract idea. *Electric Power*, 830 F.3d at 1353–54. That is, we determine whether the claims include an “inventive concept,” i.e., an element or combination of elements sufficient to ensure that the patent in practice amounts to significantly more than a patent on the abstract idea itself. *Alice*, 134 S. Ct. at 2357. The relevant inquiry here is whether “additional substantive limitations . . . narrow, confine, or otherwise tie down the claim so that, in practical terms, it does not cover the full abstract idea itself.” *Accenture Global Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1341, 1345 (Fed. Cir. 2013) (internal quotations and citation omitted).

Again we treat challenged claim 1 as representative of the subject matter challenged in claims 1–9 of the ’093 patent.

“For the role of a computer in a computer-implemented invention to be deemed meaningful in the context of this analysis, it must involve more than performance of ‘well-understood, routine, [and] conventional activities previously known to the industry.’” *Content Extraction & Transmission LLC v. Wells Fargo Bank, N.A.*, 776 F.3d 1343, 1347–48 (Fed. Cir. 2014)

(quoting *Alice*, 134 S. Ct. at 2359). “To save a patent at [*Alice*] step two, an inventive concept must be evident in the claims.” *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1327 (Fed. Cir. 2017).

Here, we agree with Petitioner and Dr. Hendershott, on this record, that challenged claim 1 (and claims 2–9) only require generic and conventional computer technology—“computer interface,” “computer processor,” “timer,” “memory,” “terminals,” and “exchange computer”—all previously known technologies performing only their conventional functions. Pet. 69–72; Ex. 1003 ¶¶ 94–98. Moreover, with reference to the disclosure of the ’093 patent and Dr. Hendershott’s testimony, Petitioner persuasively argues that the recited receiving, transmitting, accumulating, allocating, determining, and executing functions, implemented by generic computer components, were routine. Pet. 70–72 (citing Ex. 1001 Fig. 2, 7:63–65, 8:19–9:1, 9:16, 9:33–41, 9:51–53, 12:53–56, 13:45–46, 15:34; Ex. 1003 ¶¶ 96–99).

Patent Owner contends that a fully computerized system to handle block orders, using the specific technique recited (e.g., complex software), was not well-understood, routine, and conventional at the time of the invention because large sized orders were handled outside of electronic systems. Prelim. Resp. 27 (citing Ex. 2001, 5; Ex. 1014, 23–26). Patent Owner further relies on *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016), for the notion that software can make non-abstract improvements to computer technology. *Id.* at 29.

On this record, we are persuaded that the challenged claims are not like the subject matter of the claims in *Enfish*, which were “directed to a specific improvement to the way computers operate, embodied in the

referential table” and were not directed to an abstract idea. *Enfish*, 822 F.3d at 1335–36; see *Electric Power*, 830 F.3d at 1354 (characterizing the claims in *Enfish* as improving how computers carry out the basic function of storage and retrieval of data). For example, a claim at issue in *Enfish* recited (i) “means for configuring [a computer] memory according to a logical table,” having specific characteristics (i.e., logical rows and logical columns with certain enumerated characteristics) and (ii) “means for indexing data stored in said [logical] table.” *Enfish*, 822 F.3d at 1336. In contrast to the *Enfish* claims, claim 1 recites generic components, “computer interface” and “computer processor,” that perform generic functions that essentially receive, transmit, analyze, and manipulate data. Moreover, to the extent that the ’093 patent discloses “complex software,” as argued by Patent Owner, we observe that claim 1 does not provide the specific structure/technical details that indicate an improvement to computer software or hardware. Instead, the ’093 patent teaches the functionality of the exchange can be performed by off-the-shelf software. See Ex. 1001, 8:27–57.

Similarly, based on the current record, we are persuaded by Petitioner’s arguments that claims 2–9 recite additional components (e.g., “timer,” “memory,” “process,” and “terminals”) and functionalities (e.g., “a plurality of terminals adapted to transmit and receive trading information” and “a timer for determining when a predetermined time period has elapsed after the order is received, the time period being determined prior to, or at the time of, receiving the order”) that are generic and conventional in nature. Pet. 72–75; see Ex. 1003 ¶¶ 99–105.

In view of the foregoing, based on the record before us, we are persuaded by Petitioner’s arguments and supporting evidence that, when

considered individually and “as an ordered combination,” the claim elements of challenged claims 1–9 do no more than apply the abstract concept of “allocating and executing an order based on selected information and responses that are received within a predetermined time period,” and do not recite anything in a manner sufficient to transform that abstract idea into a patent-eligible invention. *See Alice*, 134 S. Ct. at 2359–60 (citing *Mayo*, 566 U.S. 66 (2012)).

IV. CONSTITUTIONALITY ARGUMENTS

Patent Owner asserts that retroactive application of covered business method patent review to pre-AIA issued patents is unconstitutional. Prelim. Resp. 31–33. We decline to consider these constitutional arguments. The “[a]djudication of the constitutionality of congressional enactments has generally been thought beyond the jurisdiction of administrative agencies.” *Thunder Basin Coal Co. v. Reich*, 510 U.S. 200, 215 (1994) (alteration in original) (quoting *Johnson v. Robison*, 415 U.S. 361, 368 (1974)). Although “[t]his rule is not mandatory” (*id.*), “[a] finding that the agency lacks jurisdiction to decide constitutional questions is especially likely when the constitutional claim asks the agency to act contrary to its statutory charter” (*Riggin v. Office of Senate Fair Emp’t Practices*, 61 F.3d 1563, 1569 (Fed. Cir. 1995)). Considerations in determining whether an agency may decide a constitutional issue include whether “the constitutional issue . . . require[s] the agency to question its own statutory authority or to disregard any instructions Congress has given it,” and whether the defense would “disable the board from fulfilling its responsibility to decide the statutory claim presented to it.” *Id.* at 1569–70.

Patent Owner challenges the constitutionality of congressional

enactments, particularly, the constitutionality of covered business method patent reviews as set forth in the AIA. Patent Owner's constitutional arguments are not directed to a particular statutory provision. Rather, they concern the entire statutory scheme of covered business method patent reviews with respect to pre-AIA issued patents. It is, however, our statutory duty to "conduct *inter partes* reviews and post-grant reviews pursuant to chapters 31 and 32" (35 U.S.C. § 6(b)(4)). Thus, Patent Owner's arguments would have us question our statutory authority and our ability to conduct those reviews, which we decline to do.

V. CONCLUSION

For the foregoing reasons, the information presented in the Petition demonstrates that it is more likely than not that claims 1–9 of the '093 patent are unpatentable based on 35 U.S.C. § 101. We have not, however, made a final determination under 35 U.S.C. § 328(a) as to the patentability of any challenged claim

VI. ORDER

For the reasons given, it is:

ORDERED that, pursuant to 35 U.S.C. § 324(a), a covered business method patent review of the '093 patent is hereby instituted on the ground that claims 1–9 recite non-statutory subject matter; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 324(d) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial, which commences on the entry date of this decision.

CBM2018-00031
Patent 7,246,093 B1

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