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Paper 12
Entered: July 9, 2024

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ASKELADDEN L.L.C.,
Petitioner,

v.

INTERCURRENCY SOFTWARE LLC,
Patent Owner.

IPR2024-00375
Patent 10,776,863 B1

Before NEIL T. POWELL, FRANCES L. IPPOLITO, and SEAN P. O'HANLON, *Administrative Patent Judges*.

IPPOLITO, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314(a)

I. INTRODUCTION

Askeladden L.L.C ("Petitioner") filed a Petition (Paper 2, "Pet.") requesting *inter partes* review of claims 1–12 of U.S. Patent No. 10,776,863 B1 (Ex. 1001, "the '863 patent"). Intercurrency Software LLC ("Patent Owner") did not file a Preliminary Response.

Under 35 U.S.C. § 314(a), an *inter partes* review may not be instituted unless the information presented in the Petition and any response thereto shows "there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition."

Considering the arguments presented, we conclude that there is a reasonable likelihood that Petitioner would prevail in challenging at least one of claims 1–12 of the '863 patent as unpatentable under the grounds presented in the Petition. Pursuant to § 314, we hereby institute an *inter partes* review as to these claims of the '863 patent.

A. Related Matters

According to Petitioner, the '863 patent is the subject of civil action in: *Intercurrency Software LLC v. Binance Holdings, Ltd.,* 2:2023cv00370 (E.D. Tex. filed August 16, 2023); *Intercurrency Software LLC v. Blockchain (Gb) Ltd,* 2:2023cv00369 (E.D. Tex. filed August 16, 2023); *Intercurrency Software LLC v. Charles Schwab & Co., Inc. et al.,* 2:2023cv00128 (E.D. Tex. filed March 27, 2023); *Intercurrency Software LLC v. Fidelity Brokerage Services LLC et al.,* 2:2023cv00080 (E.D. Tex. filed February 28, 2023); *Intercurrency Software LLC v. Foris DAX Asia Pte. Ltd.,* 2:2023cv00361 (E.D. Tex. filed August 4, 2023); *Intercurrency Software LLC v. GBM Foundation Company Ltd.,* 2:2023cv00395 (E.D. Tex. filed August 31, 2023); *Intercurrency Software LLC v. IG Group,*

2:2023cv00234 (E.D. Tex. filed May 26, 2023); *Intercurrency Software LLC v. MEK Global Limited et al.,* 2:2023cv00394 (E.D. Tex. filed August 31, 2023); *Intercurrency Software LLC v. Morgan Stanley & Co. LLC et al.,* 2:2023cv00130 (E.D. Tex. filed March 28, 2023); *Intercurrency Software LLC v. Robinhood Crypto, LLC* 2:2023cv00360 (E.D. Tex. filed August 04, 2023); and *Intercurrency Software LLC v. TD AMERITRADE, Inc. et al.,* 2:2023cv00196 (E.D. Tex. filed May 2, 2023). Pet. 11–12. Petitioner asserts, "[n]one of the defendants in the above cases is a real party in interest or a privy of Petitioner in this proceeding." *Id.* at 12.

B. The '863 Patent (Ex. 1001)

The '863 patent relates generally to "systems and methods for providing a consolidated trading platform allowing traders to trade various assets in a preferred currency regardless where and in what currency the asset is typically traded." Ex. 1001, 1:9–12. The '863 patent describes a three-tier architecture, "which includes a brokerage, a market exchange where securities/assets are traded, and a currency exchange where amounts in one currency can be converted to corresponding amounts in another currency at prevailing rates." *Id.* at 2:24–28. According to the '863 patent, the three-tier architecture presents "a consolidated trading platform," in which "the brokerage presents all prices, market data, P&L estimates, and transaction results or settlements in a preferred currency, in conjunction with the market exchange and the currency exchange." *Id.* at 2:29–33. Because of this, the '863 patent states that "a trader always knows exactly what he/she may end up with a transaction of an asset." *Id.* at 2:33–34.

Three-tier architectures depicted in Figures 2A and 2B are reproduced below.

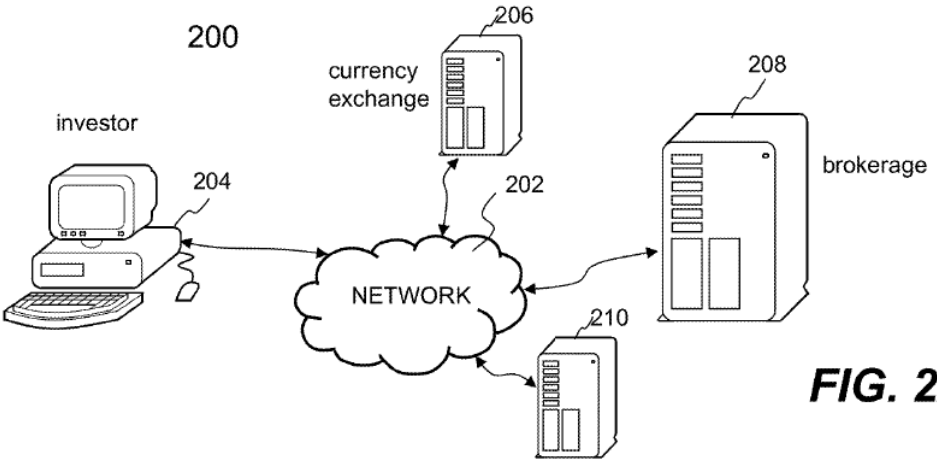

FIG. 2A

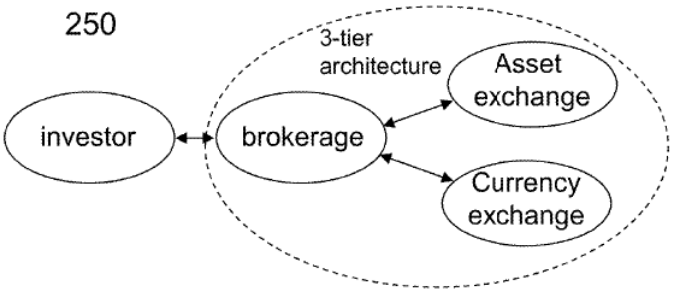

FIG. 2B

Figure 2A illustrates a system configuration and Figure 2B shows a three-tier architecture in which there are three elements together providing various transactions in a preferred currency. *Id.* at 3:62–67. System configuration 200 of Figure 2A includes network 202 that may be the Internet, and client machine 204 coupled to the network, and that "may be accessed by or associated with traders residing anywhere." *Id.* at 4:44–49. Also coupled to network 202 are three servers 206, 208 and 210, wherein server 206 represents a bank or an exchange providing a currency exchange rate to buy or sell a type of currency for another, server 208 represents a brokerage that facilitates a transaction by a trader, and server 210 represents an asset or market exchange where an asset is caused to change hands. *Id.* at 4:66–5:6. According to the '863 patent, because the system conducts a transactional level currency conversion "a trader knows exactly what profits and losses

he/she is going to get in the transaction, without being subject to uncertainty in currency conversion of another time." *Id.* at 5:16–20. Three-tier architecture 250 shown in Figure 2B includes "three elements together providing a consolidated trading platform. These three elements are communicating over a network, together providing all transactions in a local currency upon a real-time transactional level currency conversion." *Id.* at 5:22–27. An exemplary transaction is depicted in Figure 3, reproduced below.

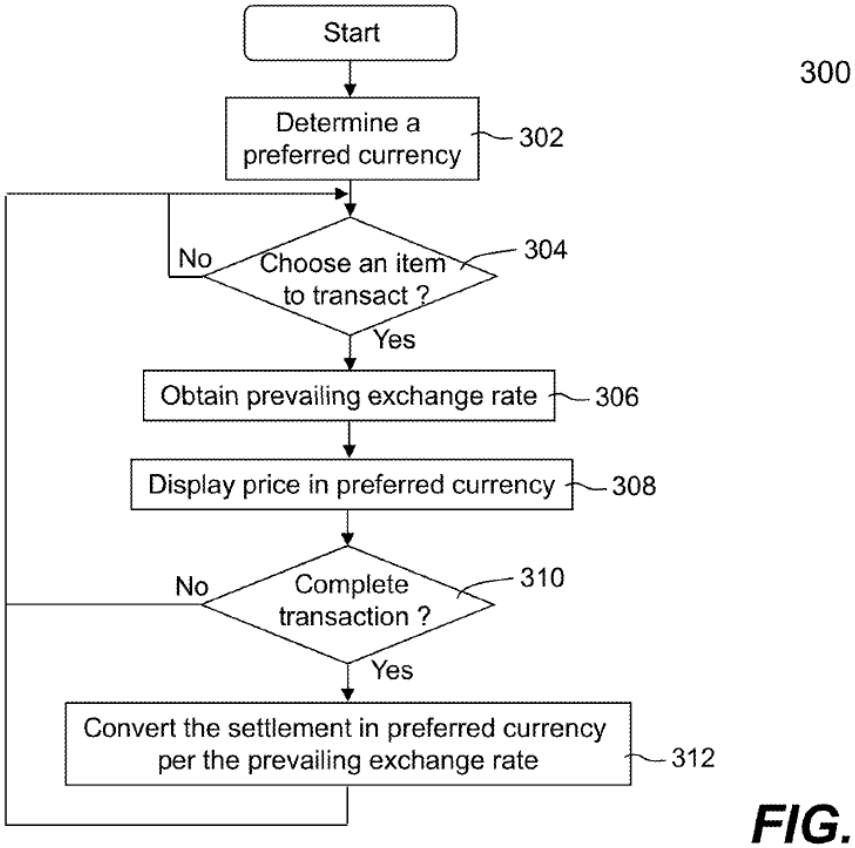

FIG. 3

Figure 3 shows a flowchart or process of conducting a transaction by a trader in a chosen currency other than a market currency. *Id.* at 4:1–3. In Figure 3, "process 300 starts at 302 where it determines what type of currency (e.g., Yen, RMB, EURO)" has been determined by the trader. *Id.*

at 5:36–38. "Once the currency is determined, all subsequent transactions, market data or quotes are presented in the chosen currency in conjunction with a prevailing currency exchange rate provided by an exchange agent." *Id.* at 5:40–43. At step 304, "process 300 determines whether an item (e.g., a stock of XYZ company) has been chosen for transaction (e.g., buying or selling the stock)." *Id.* at 5:44–46. Then, "a prevailing exchange rate is obtained at 306 from a currency exchange." *Id.* at 5:48–49. If the prevailing exchange rate is provided in yen, "the various costs of the item are displayed in the Japanese yen at 308." *Id.* at 5:54–56. The '863 patent explains that because the costs include "a current market cost of the item to own or to sell, a transaction cost, and a total cost including all the costs and fees," the trader will have "knowledge of what to pay for the item, or profit or loss when selling the item." *Id.* at 5:56–61. "[P]rocess 300 now goes to 310 where the trader decides whether the item shall be bought or sold." *Id.* at 5:62–63. If "the trader decides to proceed with the item (e.g., to own or sell the asset), the process 300 goes to 312 where the transaction is completed (i.e., settled) in the preferred currency." *Id.* at 5:67–6:3.

C. Challenged Claims

Petitioner challenges claims 1–12. Pet. 13. Claims 1 and 6 are the independent claims. Claim 1 is reproduced below:

> 1. A method for trading an asset, the method comprising:
>
> coupling a trading server to one or more currency exchange servers and one or more market exchange servers;
>
> receiving in the trading server an indicator of a preferred currency from a trader;
>
> causing a client computer associated with the trader to display the asset in the preferred currency while the asset is being traded in a market currency, wherein said causing a client

computer associated with the trader to display the asset in the preferred currency comprises:

determining in the trading server a prevailing exchange rate between the preferred currency and the market currency, wherein the prevailing exchange rate is derived from all exchange rates obtained from the one or more currency exchange servers when the asset is displayed in the preferred currency, valuation of the asset in the preferred currency changes in accordance with the prevailing exchange rate updated constantly even when a market value of the asset remains unchanged;

displaying all costs and fees in the preferred currency to own or sell the asset, wherein the all costs and fees are dynamically changed in accordance with the prevailing exchange rate updated constantly even when the market value of the asset remains unchanged;

conducting in the trading server a transaction of the asset by transmitting a transaction request from the trading server to a market exchange server when the trader decides to proceed with trading the asset;

receiving a settlement notification in the trading server when the transaction of the asset is performed by the market exchange server in accordance with conditions set by the trader, wherein the trading server is configured to calculate the prevailing exchange rate from all exchange rates obtained from the one or more currency exchange servers right before the transaction takes place when the asset is not priced in the preferred currency, and executes the transaction with the calculated prevailing exchange rate obtained right before the transaction to prevent uncertainty m currency exchanges in another time.

Ex. 1001, 8:47–9:21 (minor reformatting).

D. Alleged Grounds of Unpatentability

Petitioner asserts the following grounds of unpatentability:

Claim(s) Challenged	35 U.S.C. §	References
1–4, 6–10	103(a)	Calo[1], Rude,[2] Sellberg[3]
1–4, 6–10	103(a)	Calo, Rude, Szoc[4]
11, 12	103(a)	Calo, Rude, Sellberg, Szoc,[5] Davidowitz[6]
5	103(a)	Calo, Rude, Sellberg, Szoc, Kedia[7]

Pet. 15. In addition to the references listed above, Petitioner relies on the Declaration of Mr. Marc Reid (Ex. 1002). *See, e.g.*, Pet. 9.

II. ANALYSIS

A. Claim Construction

For petitions such as this one, filed after November 13, 2018, we apply the same claim construction standard "used in the federal courts, in other words, the claim construction standard that would be used to construe

[1] U.S. Patent Application Pub. No. 2002/0087454 A1, published July 4, 2002 (Ex. 1005) ("Calo").
[2] U.S. Patent Application Pub. No. 2006/0095361 A1, published May 4, 2006 (Ex. 1006) ("Rude").
[3] U.S. Patent Application Publication No. 2004/0236664 A1, published November 25, 2004 (Ex. 1019) ("Sellberg").
[4] U.S. Patent Application Publication No. 2002/0023053 A1, published February 21, 2002 (Ex. 1007) ("Szoc").
[5] Petitioner uses "Sellberg or Szoc" for grounds 3 and 4. *See* Pet. 15. We treat this as a single ground consistent with Petitioner's listing.
[6] U.S. Patent Application Pub. No. 2004/02767655 A1, published December 30, 2004 (Ex. 1018) ("Davidowitz").
[7] U.S. Patent Application Pub. No. 2007/0005481 A1, published January 4, 2007 (Ex. 1017) ("Kedia").

the claim in a civil action under 35 U.S.C. [§] 282(b)," which is articulated in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). 83 Fed. Reg. 51,340, 51,358 (Oct. 11, 2018) (amending 37 C.F.R. § 42.100(b) effective November 13, 2018) (now codified at 37 C.F.R. § 42.100(b) (2019)). Under the *Phillips* standard, the "words of a claim are generally given their ordinary and customary meaning," which is "the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Phillips*, 415 F.3d at 1312–1313.

Petitioner asserts that for the term "prevailing exchange rate," as recited in claims 1, 4, and 6, "[t]he term prevailing commonly means 'current.'" Pet. 27. According to Petitioner, this is consistent with the '863 patent. *Id.* Petitioner asserts that "[t]he only rates the Specification describes using are a 'forward' rate or a 'spot' rate – in other words, a selected current exchange rate." *Id.* (citing Ex. 1002 ¶ 200). Petitioner thus asserts that "'prevailing exchange rate' means 'a selected current exchange rate.'" *Id.* Petitioner further contends that the term "prevailing currency exchange rate" as recited in claims 1, 2, 3, 6, 7, 8 and 11, "should be given the same meaning as 'prevailing exchange rate.'" *Id.*

We do not need to construe any terms expressly to reach our decision. *See Realtime Data LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) ("The Board is required to construe 'only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy.'" (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

B. Alleged Obviousness

In *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1 (1966), the Supreme Court set out a framework for assessing obviousness under § 103 that requires consideration of four factors: (1) the "level of ordinary skill in the pertinent art," (2) the "scope and content of the prior art," (3) the "differences between the prior art and the claims at issue," and (4) "secondary considerations" of non-obviousness such as "commercial success, long-felt but unsolved needs, failure of others, etc." *Id.* at 17–18. "While the sequence of these questions might be reordered in any particular case," *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 407 (2007), the Federal Circuit has "repeatedly emphasized that an obviousness inquiry requires examination of all four *Graham* factors and that an obviousness determination can be made only after consideration of each factor." *Nike, Inc. v. Adidas AG*, 812 F.3d 1326, 1335 (Fed. Cir. 2016).

We note that, with respect to the fourth *Graham* factor, the current record in this proceeding does not include any argument or evidence directed to secondary considerations of nonobviousness. The analysis below addresses the first three *Graham* factors.

C. Level of Ordinary Skill in the Art

In determining the level of skill in the art, we consider the type of problems encountered in the art, the prior art solutions to those problems, the rapidity with which innovations are made, the sophistication of the technology, and the educational level of active workers in the field. *Custom Accessories, Inc. v. Jeffrey-Allan Indus. Inc.*, 807 F.2d 955, 962 (Fed. Cir. 1986); *Orthopedic Equip. Co. v. U.S.*, 702 F.2d 1005, 1011 (Fed. Cir. 1983).

Petitioner proposes "that a [person of ordinary skill in the art] for the '863 Patent in the relevant field in 2007 would have a bachelor's degree in computer science or a related study and two years of experience with financial trading systems or an equivalent combination of education and experience." Pet. 27–28 (citing Ex. 1002 ¶¶ 60–61).

For purposes of this Decision, we adopt the proposal of Petitioner's expert, which comports with the teachings of the '863 patent and the asserted prior art. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001).

D. Prior Art References

1. Calo (Ex. 1005)

Calo describes "a globalized trading network that permits trading of stocks and other securities and commodities across international boundaries." Ex. 1005 ¶ 3. Calo's trading methods "include accepting an electronic transaction order for the purchase or sale of a security, vetting the order" for sufficiency of funds, "transmitting the transaction order to a global hub, purchasing or selling the security, and adjusting the customer account accordingly." *Id.* ¶ 9.

Figure 2, reproduced below, illustrates Calo's system.

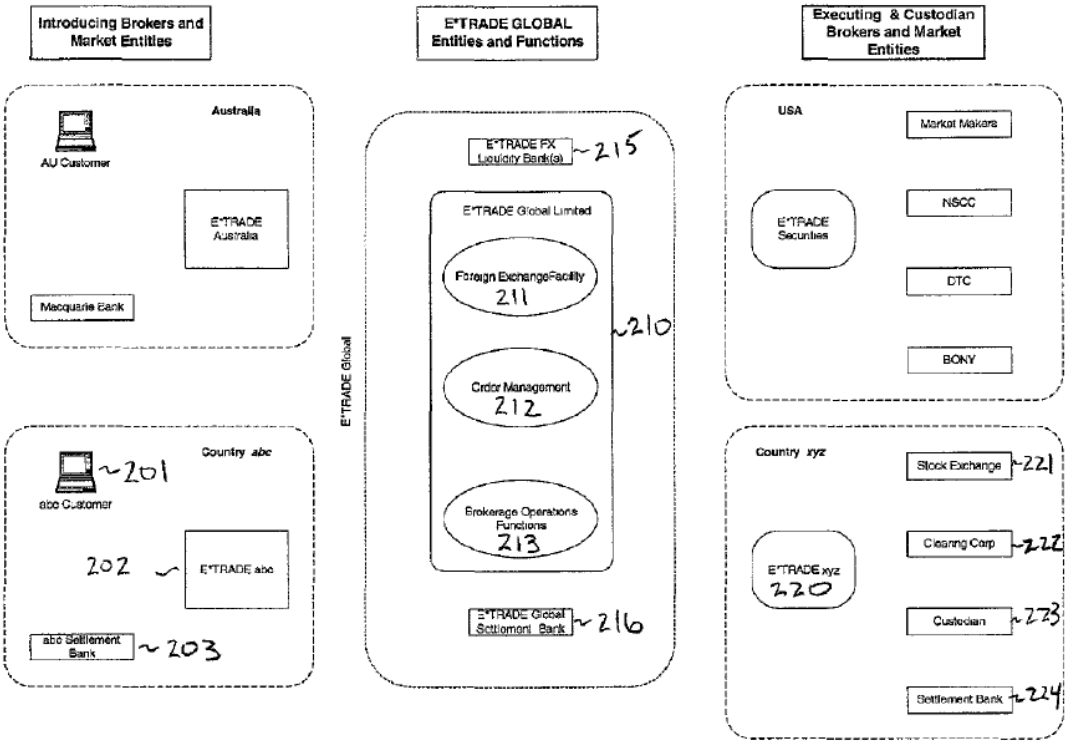

Figure 2 illustrates an exemplary computer network and "the various entities associated with the introducing broker, the executing broker, and the E*TRADE Global system." *Id.* ¶ 27. On the introducing broker side is "customer 201, local E*TRADE affiliate 202, and abc settlement bank 203," for country abc and the corresponding elements for an Australian introducing broker. *Id.* Calo teaches that "E*TRADE Global hub 210 supports Foreign Exchange Facility 211, order management system 212 and brokerage operation system 213 internally," as well as "Foreign Exchange (FX) liquidity bank 215, and its own global settlement bank 216." On the executing broker side is "local E*TRADE affiliate 220, stock exchange 221 of the country from where the equities are being purchased, clearing corporation 222, custodian 223, and local settlement bank 224," of country xyz and the corresponding elements for a US executing broker. *Id.*

Figure 3B of Calo is further reproduced below:

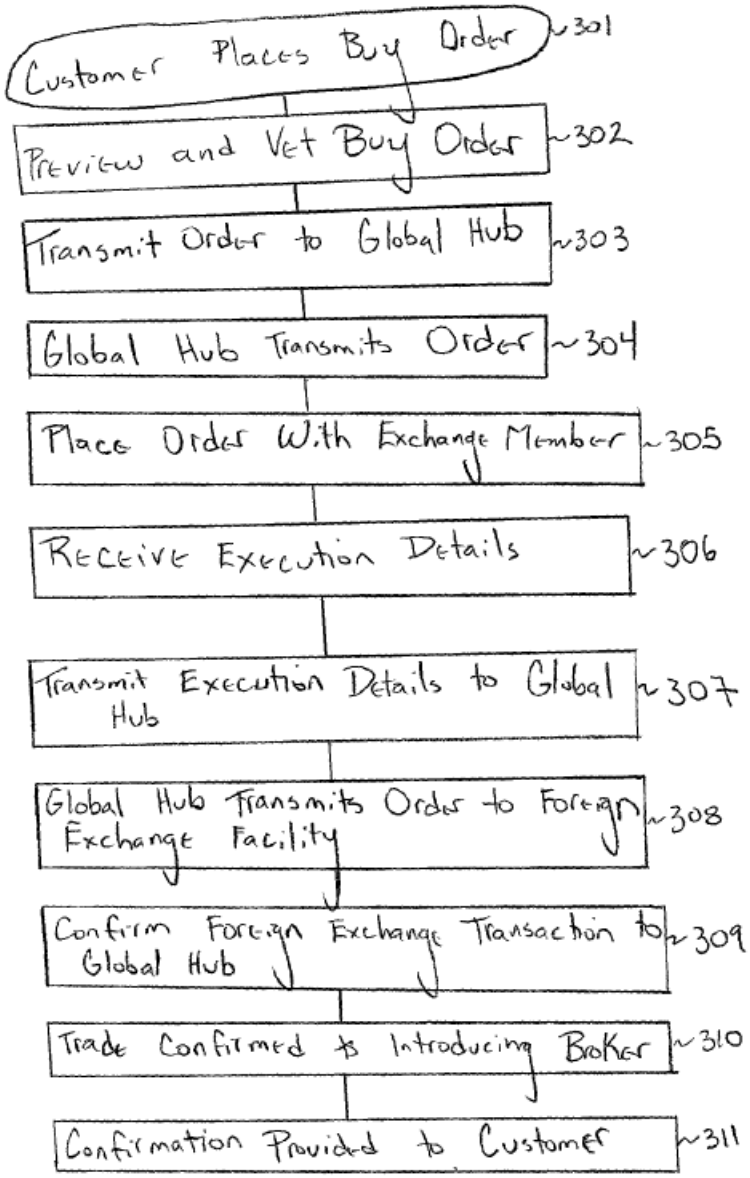

FIGURE 3B

Figure 3B is a "flow diagram illustrating cross-border trading order and execution flow for buying a security." *Id.* ¶ 14. In a cross-border

transaction for an Australian customer buying a U.S. security, "prior to step 301, a customer in Australia receives from E*TRADE Global a preview price on a real-time basis for a U.S. equity (such as an individual stock or mutual fund share)." *Id.* ¶ 30. Calo explains that although orders are normally placed "based on the currency of the target market in which the security trades[, a] price in the native currency may also be provided, with this price being based on both the real-time quote for price on the U.S. equity, as well as a real-time conversion from the foreign exchange rates." *Id.* At step 301, the customer places an order with E*TRADE Australia based on the real-time quote. The order is vetted at step 302, and then transmitted to E*TRADE Global at step 303. *Id.*

At step 304, E*TRADE Global transmits the order to E*TRADE Securities (ETS). *Id.* At step 305, the order is placed and executed with a U.S. exchange, or E*TRADE Global may execute the trade directly. *Id.* "After the equity order is executed, ETS receives the execution details at step 306," and "transmits the execution details to E*TRADE Global," at step 307, which confirms the trade back to E*TRADE Australia in step 310 including "the USD execution price and principal amount as well as the locked-in AUD value of the trade." *Id.* "At step 311, E*TRADE Australia gives confirmation to the customer of the purchase. This confirmation includes E*TRADE Australia's commissions and fees." *Id.*

2. *Rude (Ex. 1006)*

Rude is directed to "systems, methods, apparatus, computer program code and means for electronic trading of securities" that "facilitat[e] trading of securities priced in currencies other than a trader's operating currency." Ex. 1006 ¶ 1. Rude explains that foreign securities trading transactions may

be processed, so that price quotations from a foreign securities exchange are "automatically converted to a trader's operating currency and may be displayed by a trading system to the trader in the operating currency, rather than in the local currency in which the quotations are presented on the foreign securities exchange." *Id.* ¶ 19. Rude further discloses that "[w]hen an order for a foreign securities trading transaction is placed by the trader, the order is sent by the trading system to the foreign securities exchange and is executed on the foreign securities exchange in the local currency of the foreign securities exchange." *Id.* According to Rude, "a net settlement amount is established for the transaction, reflecting the execution price and expenses such as settlement fees and commissions." *Id.*

Figure 1, reproduced below, shows a block diagram of Rude's system. *Id.* ¶ 7.

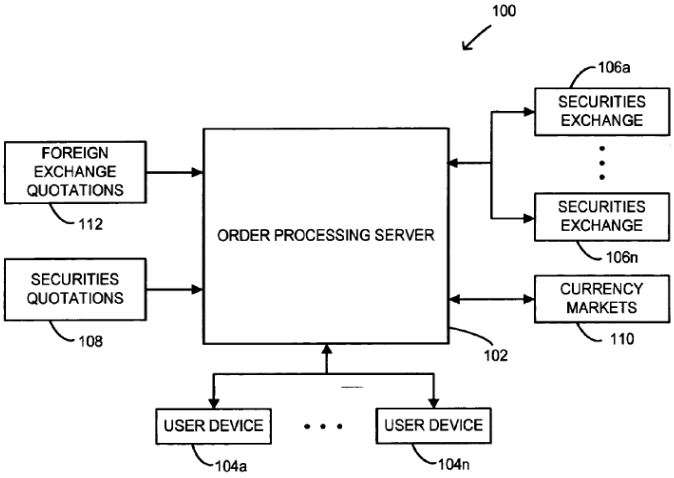

FIG. 1

Figure 1, reproduced above, shows "trading system 100 includes a number of different components which cooperatively operate to process foreign

securities trading orders and related foreign exchange transactions." *Id.* ¶ 20. In particular, "trading system 100 includes an order processing server 102 in communication with one or more user device(s) 104, a plurality of securities exchanges 106, and a source or sources 108 of current securities price quotations." *Id.* ¶ 21. Referring to Figure 1, Rude discloses that "order processing server 102 is also in communication with one or more currency (foreign exchange) markets 110, and one or more sources 112 of foreign exchange price quotations." *Id.* "[O]rder processing server 102 operates to receive from the price quotation sources 108, 112 data concerning market conditions," wherein "the data supplied by the source(s) 108 may include current price quotations for securities to be traded via the trading system 100." *Id.* ¶ 23. According to Rude, "[t]he quotations may be provided in the local currencies of the various securities exchanges." *Id.*

3. *Sellberg (Ex. 1019)*

Sellberg describes systems and methods for automatically generating an order in an instrument in a specified currency. Ex. 1019 ¶ 1. Figure 1 of Sellberg, reproduced below, is a schematic flow scheme of a method described.

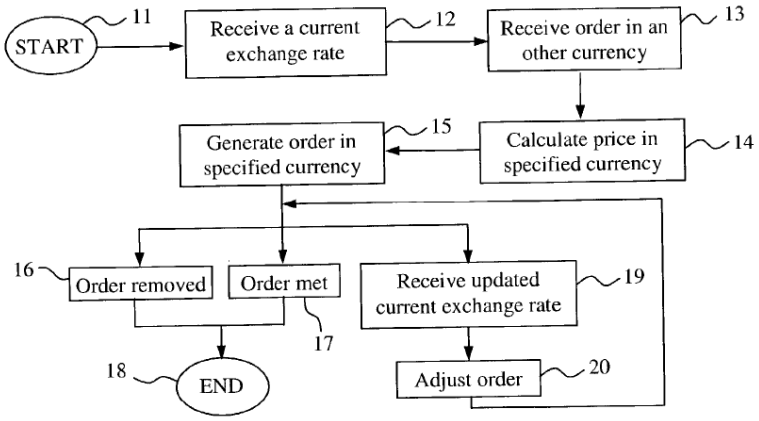

Fig. 1

Figure 1 shows an algorithm for automatically generating an order in an instrument in a specified currency. *Id.* ¶ 22. In step 11 of Figure 1, the algorithm is started. *Id.* ¶ 23. In step 12, a current exchange rate between a currency, which is different from a specified currency in which the instrument is traded, is received. *Id.* "In step 13, an order is received in the particular instrument in a currency different from the specified currency from a trader. *Id.* Sellberg explains that "an updated exchange rate between the different currency and the specified currency is received repeatedly and automatically from the currency market …, and the last received updated exchange rate between the different currency and the specified currency at the time of receiving the order is used as the received current exchange rate." *Id.* ¶ 24.

4. Szoc (Ex. 1007)

Szoc describes "apparatus, system and method for providing real-time foreign exchange rate quotes, cross-border payments, and other financial information and services to clients over the Internet and World Wide Web." Ex. 1007 ¶ 5. Szoc's "scrolling quote bar 430 provides a scrolling list of the

foreign exchange rates received by the web server 110 from the quote server 126." *Id.* ¶ 83. "Rates are displayed for various currencies with respect to the currently logged-in client's native currency," and "the client may change the number of rates displayed, the manner in which they are displayed, the client's native currency, etc." *Id.* "[S]crolling quote bar 430 may display realtime, constantly changing rates," or "the displayed quoted rates are updated at a request of the client, such as by clicking on the quote link 422." *Id.*

5. *Davidowitz (Ex. 1018)*

Davidowitz describes a method and system for initiating pairs trading "across multiple markets, including foreign markets, and automatic foreign exchange price hedge." Ex. 1018 ¶ 3. Davidowitz discloses "an automated system that can help manage an investor's portfolio, including continuously monitoring the relationships of pairs in various markets and automatically executing transactions based upon the realization of specific parameters chosen by the investor." *Id.* ¶ 8. Davidowitz also discloses "a system that can monitor the relationships between securities in various foreign currencies and revalue such securities into a single currency in order to facilitate an investor's automated pairs trading strategy." *Id.*

6. *Kedia (Ex. 1017)*

Kedia "relates to a graphical user interface for on-line trading that allows real-time trading and provides trade-data to the user in configurable and easily comprehendible formats." Ex. 1017 ¶ 1. Kedia's method of displaying is configurable by the user, and includes "graphically displaying and updating in substantially real time in a first portion of the graphical user interface historical filled order data," as well as "graphically displaying and

updating in substantially real time in a second portion of the graphical user interface current unfilled order data," and "graphically displaying trade related actions made on the graphical user interface by the user," while allowing modifications by the user." *Id.* ¶ 47.

E. Obviousness Based on Calo, Rude, and Sellberg

Petitioner asserts that each of claims 1–4 and 6–10 of the '863 patent would have been obvious over Calo, Rude, and Sellberg. Pet. 28–43.

For the reasons discussed below, we are persuaded that Petitioner has demonstrated a reasonable likelihood of prevailing on this challenge.

1. Independent Claim 1

a. coupling a trading server to one or more currency exchange servers and one or more market exchange servers

Independent claim 1 recites a method for trading an asset, the method including, "coupling a trading server to one or more currency exchange servers and one or more market exchange servers." Ex. 1001, 8:47–50.

For these limitations, Petitioner contends that "Calo and Rude both describe . . . consolidated trading platforms." Pet. 51. With respect to Calo, Petitioner asserts that Calo discloses "a trading platform with a three-tier network in Fig. 2" having "an extensive trading platform including Foreign Exchange servers and trading servers." *Id.* at 51–52 (claim chart citing Ex. 1005 ¶ 27; Ex. 1002 ¶¶ 82–119, 158–166, 184–190). Petitioner asserts that "Rude's system is connected to a foreign exchange quotation computer, a currency quotation computer, and a currency market computer," as well as being "connected to security exchanges." *Id.* at 52 (citing Ex. 1006 ¶ 21, Fig. 1).

Based on the preliminary record, we are persuaded that Calo and Rude disclose this limitation for the reasons given by Petitioner.

b. receiving in the trading server an indicator of a preferred currency from a trader

Claim 1 further recites, "receiving in the trading server an indicator of a preferred currency from a trader." Ex. 1001, 8:51–52.

Petitioner asserts that Rude provides "quotes in an 'operating' currency rather than the currency local to the market where an asset is traded," converts "quotes of security prices []in local currencies to his/her operating currency," and converts "quotes from a local (market) currency to the operating (preferred) currency." Pet. 52 (citing Ex. 1006 ¶¶ 19, 47–49, 60; Ex. 1002 ¶¶ 195–197).

With reference to Calo, Petitioner asserts that "Calo discloses that its system may provide price of a security in the 'native,' or preferred currency." Pet. 52 (citing Ex. 1005 ¶¶ 30, 58; Ex. 1002 ¶¶ 191–194).

Based on the preliminary record, we are persuaded that Calo and Rude disclose this limitation for the reasons given by Petitioner.

c. causing a client computer associated with the trader to display the asset in the preferred currency while the asset is being traded in a market currency

Claim 1 also recites, "causing a client computer associated with the trader to display the asset in the preferred currency while the asset is being traded in a market currency." Ex. 1001, 8:53–57.

Petitioner asserts that both Calo and Rude disclose this limitation. Pet. 53 (citing Ex. 1005 ¶¶ 30, 57; Ex. 1006 ¶¶ 19, 29, 47–49, 60; Ex. 1002 ¶¶ 198–199).

Consistent with Petitioner's arguments, we observe that Rude teaches expressly that

> the user interface of the user device 104, in cooperation with the order processing server 102, may present one or more screen

> displays (not shown) to the user, to permit the user to select in advance for his or her operation of the user device options as to whether foreign securities quotations are to be provided in an operating currency designated by the user or in the local currencies in which the foreign securities trade.

Ex. 1006 ¶ 58. Additionally, we note that Rude discloses an example where

> a user is based in New York and operates in U.S. dollars. Further assume that the user has opted for automatic conversion of quotes of securities prices in local currencies to his/her operating currency and for automatic foreign exchange trading to convert local currency settlements to his/her operating currency.

Id. ¶ 60.

Based on the preliminary record, we are persuaded that Rude discloses this limitation for the reasons given by Petitioner.

d. determining and updating prevailing exchange rate

Claim 1 further recites "wherein said causing a client computer associated with the trader to display the asset in the preferred currency comprises:

> determining in the trading server a *prevailing exchange rate between the preferred currency and the market currency*, wherein the prevailing exchange rate is derived from all exchange rates obtained from the one or more currency exchange servers when the asset is displayed in the preferred currency, valuation of the asset in the preferred currency changes in accordance with the prevailing exchange rate updated constantly even when a market value of the asset remains unchanged.

Ex. 1001, 8:55–67 (emphasis added).

Petitioner asserts that Rude discloses using real-time, prevailing rates because "[p]rice quotations from a foreign securities exchange may be automatically converted to a trader's operating currency and may be displayed by a trading system to the trader in the operating currency, rather

than in the local currency in which the quotations are presented on the foreign securities exchange." Pet. 53 (citing Ex. 1006 ¶ 19).

Petitioner further contends that to the extent Rude is considered not to teach "the prevailing exchange rate," using a prevailing exchange rate was disclosed by both Calo and Sellberg. Pet. 41 (citing Ex. 1002 ¶¶ 88, 161, 201–202, 204). Petitioner asserts that Calo discloses the price in the native currency may be provided, with this price based on both the real-time quote for price on the U.S. equity, as well as a real-time conversion from the foreign exchange rates. *See* Pet. 53 (citing Ex. 1005 ¶ 30). Additionally, Petitioner asserts that Sellberg uses "an updated exchange rate, preferabl[y] the last exchange rate just prior to the submitting the order, for performing the transaction." *Id.* (citing Ex. 1019 ¶¶ 23–25).

Petitioner's declarant, Mr. Reid, further directs us to Calo's teaching that

> E*TRADE Global FX facility is responsible for the foreign exchange procedures and therefore receives global foreign exchange rates from E*TRADE Market Data Services (which in turn receives foreign exchange quotes from a provider). The E*TRADE Global FX facility also maintains FX Margin management data, and can receive[] a contingency foreign exchange contribution via a Web Server connected to the internet. The E*TRADE Global FX facility communicates retail foreign exchange rates to each local affiliate through E*TRADE global affiliate interface.

Ex. 1002 ¶ 202 (quoting Ex. 1005 ¶ 50). With respect to the combination of the references, Mr. Reid testifies that "[i]t was well known in the art that there was a benefit to using multiple currency exchange rates and/or a favorable rate." *Id.* ¶ 205. Additionally, "Sellberg also describes benefits of adding currency exchange features to a trading system, such as increasing

liquidity in the system . . . . Thus, the skilled person would have known that adding currency exchange to a trading system would be a desired improvement." *Id.* ¶ 162 (citing Ex. 1019 ¶ 12).

Based on the preliminary record, we are persuaded that the combination of Calo, Rude, and Sellberg discloses this limitation for the reasons given by Petitioner.

e. displaying all costs and fees in the preferred currency and updating constantly

Claim 1 also recites, "displaying all costs and fees in the preferred currency to own or sell the asset, wherein the all costs and fees are dynamically changed in accordance with the prevailing exchange rate updated constantly even when the market value of the asset remains unchanged." Ex. 1001, 9:1–5.

Petitioner relies on Calo, Rude, and Sellberg for this limitation. Pet. 42 (citing Ex. 1002 ¶¶ 206–210). Petitioner asserts that "Calo discloses that all costs and fees are displayed prior to a trade in the preferred currency and are updated in real time." *Id.* at 54 (citing Ex. 1005 ¶¶ 30, 38, 70). Mr. Reid further testifies that "Sellberg teaches to use the prevailing exchange rate just prior to executing a trade" and that it would have been obvious to incorporate this rate in Calo. Ex. 1002 ¶ 207; *see id.* 162.

Based on the preliminary record, we are persuaded that the combination of Calo, Rude, and Sellberg discloses this limitation for the reasons given by Petitioner. For example, we discern Calo teaches that

> [t]he customer places the order with a cost estimate based on the real-time quotes for the security. At step 302, E*TRADE Australia provides a preview of the order and vets against the buying power of the customer to reserve the sum of the principal amount calculated in U.S. dollars (USD) based on the current

> U.S. ask price, the Australian dollar (AUD) equivalent based on the current ask price for USD based on the USD principal amount, the estimated commissions and fees for a cross-border trade to the US and an additional "reserve" over the previous amounts to allow for fluctuations in both the US equity and USD/AUD currency market.

Ex. 1005 ¶ 30. Additionally, we observe that Sellberg discloses "an updated exchange rate between the different currency and the specified currency is received repeatedly and automatically from the currency market . . ., and the last received updated exchange rate between the different currency and the specified currency at the time of receiving the order is used as the received current exchange rate." Ex. 1019 ¶ 24. These disclosures, at this juncture, are consistent with Petitioner's position that the asserted combination of the references teaches costs and fees are displayed in the preferred currency and updated in real time.

f. conducting in the trading server a transaction of the asset by transmitting a transaction request from the trading server to a market exchange server when the trader decides to proceed with trading the asset

Claim 1 also recites, "conducting in the trading server a transaction of the asset by transmitting a transaction request from the trading server to a market exchange server when the trader decides to proceed with trading the asset." Ex. 1001, 9:6–9.

Petitioner relies on Calo and Rude for this limitation. Pet. 42 (citing Ex. 1002 ¶¶ 211–212). Petitioner contends that "Calo discloses that E*trade conducts the trade when the customer decides to sell their asset." *Id.* at 55 (citing Ex. 1005 ¶ 40). Petitioner also contends that "Rude discloses conducting the trade by submitting it to the order processing server." *Id.* (citing Ex. 1006 ¶¶ 50–51).

Based on the preliminary record, we are persuaded that the combination of Calo and Rude discloses this limitation for the reasons given by Petitioner.

g. receiving a settlement notification and calculating the prevailing exchange rate right before the transaction takes place

Claim 1 further recites:

> receiving a settlement notification in the trading server when the transaction of the asset is performed by the market exchange server in accordance with conditions set by the trader, wherein the trading server is configured to calculate the prevailing exchange rate from all exchange rates obtained from the one or more currency exchange servers *right before the transaction takes place when the asset is not priced in the preferred currency*, and executes the transaction with the *calculated prevailing exchange rate obtained right before the transaction* to prevent uncertainty in currency exchanges in another time.

Ex. 1001, 9:10–21 (emphases added).

Petitioner asserts that the combination of Calo, Rude, and Sellberg discloses this limitation. Pet. 42 (citing Ex. 1002 ¶¶ 213–226). Petitioner asserts that Calo discloses, "E*TRADE Australia with the USD execution price and principal amount as well as the locked-in AUD value of the trade." *Id.* at 55 (citing Ex. 1005 ¶ 30) (emphasis omitted). In particular, Petitioner asserts Calo discloses that "after the equity order is executed, E*TRADE Global transacts a foreign exchange deal prior to confirming the sale of the equity back to E*TRADE Australia," which "includes sending an order to the Global FX facility to sell U.S. dollars for Australian dollars," wherein "the foreign exchange bank confirms the foreign exchange deal with the Australian dollar counter amount to E*TRADE Global," and "the trade is confirmed to E*TRADE Australia with the USD execution price and

principal amount as well as the locked-in AUD value of the trade." *Id.* at 58 (citing Ex. 1005 ¶ 36).

As to Rude, Petitioner asserts that "Rude discloses that by executing a trade at the real-time exchange rate, the resulting clearance has the condition met where the settlement price is the prevailing exchange rate 'right before the transaction takes place when the asset is not priced in the preferred currency.'" *Id.* at 55–56 (citing Ex. 1006 ¶ 62). According to Petitioner, Rude's disclosure is consistent with that of the '863 patent, because "Rude discloses that prevailing rates may include current (spot) and forward rates." *Id.* at 59 (citing Ex. 1006 ¶ 20).

Petitioner further contends that "[t]o the extent that the Calo-Rude combination fails to disclose using the prevailing rate 'right before the transaction takes place,' this is clearly disclosed by Sellberg." Pet. 41 (citing Ex. 1002 ¶ 226). Petitioner cites Sellberg in the claim chart, though without explanation. *Id.* at 56 (citing Ex. 1019 ¶¶ 23–25). Nonetheless, we note that Sellberg teaches in paragraphs 24 and 25 the following:

> an updated exchange rate between the different currency and the specified currency is received repeatedly and automatically from the currency market or the market maker, and the last received updated exchange rate between the different currency and the specified currency at the time of receiving the order is used as the received current exchange rate. The frequency, at which the updated exchange rate between the different currency and the specified currency is received, may be from several times a second down to once an hour, or even more infrequently. If the updated exchange rate between the different currency and the specified currency is received repeatedly and automatically from a market maker, this market maker guarantees to perform a currency transaction based on the last received updated exchange rate. Thus, the updated exchange rate as received may be viewed upon as a real time feed of guaranteed exchange rates.

Ex. 1019 ¶¶ 24–25.

Based on the preliminary record, we are persuaded that the combination of Calo, Rude, and Sellberg discloses this limitation for the reasons given by Petitioner because the cited disclosures are consistent with and support Petitioner's arguments for the purposes of institution.

2. Claims 2–4 and 6–10

For claims 2–4 and 6–10, Petitioner relies on the same or similar arguments and evidence discussed above for the combination of Calo, Rude, and Sellberg. *See* Pet. 42–43, 64–70 ("Claims 2–3 and 5–10 add only basic trading system steps well-known prior to 2007.") (citing Ex. 1002 ¶¶ 52–53). Petitioner further directs us to the claim chart on pages 59 through 72 of the Petition. *Id.* at 42.

Patent Owner did not file a Preliminary Response, and therefore has not yet addressed Petitioner's contentions. Because we find Petitioner meets its burden for institution as to independent claim 1, we do not address independent claim 6 or the dependent claims at this time.

F. Remaining Obviousness Challenges

Petitioner asserts that claims 1–4 and 6–10 of the '863 patent would have been obvious over Calo, Rude, and Szoc. Pet. 43–47. Petitioner relies on the same or similar arguments and evidence discussed above for the combination of Calo, Rude, and Sellberg. *Id.* Petitioner further relies on Szoc "to disclose using the prevailing rate 'right before the transaction takes place.'" *Id.* at 46, 56 (citing Ex. 1007 ¶ 101; Ex. 1002 ¶¶ 226, 339).

Petitioner further asserts that dependent claims 11 and 12 of the '863 patent would have been obvious over Calo, Rude, Sellberg, and Davidowitz,

and in the alternative, over Calo, Rude, Szoc, and Davidowitz. Pet. 48–49, 72–75 (citing Ex. 1002 ¶¶ 325–336).

Additionally, Petitioner asserts that dependent claim 5 of the '863 patent would have been obvious over Calo, Rude, Sellberg, and Kedia, and in the alternative, over Calo, Rude, Szoc, and Kedia. Pet. 48–49, 72–75 (citing Ex. 1002 ¶¶ 152–153, 245–246).

Patent Owner did not file a Preliminary Response, and therefore has not yet addressed Petitioner's contentions.

"When instituting *inter partes* review, the Board will authorize the review to proceed on all of the challenged claims and on all grounds of unpatentability asserted for each claim." 37 C.F.R. § 42.108(a). We must "either (1) institute as to all claims challenged in the petition and on all grounds in the petition, or (2) institute on no claims and deny institution." Patent Trial and Appeal Board Consolidated Trial Practice Guide (Nov. 2019),[8] 5–6, 64; *see also* 37 C.F.R. § 42.108(a), *PGS Geophysical AS v. Iancu*, 891 F.3d 1354, 1359–60 (Fed. Cir. 2018) (stating a decision to institute is "a simple yes-or-no institution choice respecting a petition, embracing all challenges included in the petition").

The parties are encouraged to develop the record on these issues after institution.

III. CONCLUSION

For the foregoing reasons, we determine that Petitioner demonstrates a reasonable likelihood of prevailing with respect to at least one of the claims challenged in the Petition. Accordingly, *inter partes* review of the '863 patent shall proceed in this case on all of the grounds raised in the

[8] Available at https://www.uspto.gov/TrialPracticeGuideConsolidated.

Petition. *See SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 1359–60 (2018) (holding that a decision to institute under 35 U.S.C. § 314 may not institute on fewer than all claims challenged in the petition); *PGS Geophysical*, 891 F.3d at 1360.

Our determination in this Decision is not a final determination on either the patentability of any challenged claims or the construction of any claim term. The factual findings set forth in this Decision are preliminary and provided for the sole purpose of deciding whether to institute a review. Any final findings will be based on the full trial record, including any information presented by Patent Owner in a timely filed response to the Petition. *See TriVascular, Inc. v. Samuels*, 812 F.3d 1056, 1068 (Fed. Cir. 2016) (noting that "there is a significant difference between a petitioner's burden to establish a 'reasonable likelihood of success' at institution, and actually proving invalidity by a preponderance of the evidence at trial") (quoting 35 U.S.C. § 314(a) and comparing *id.* with § 316(e)).

IV. ORDER

Upon consideration of the record before us, it is:

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review of claims 1–12 of the '863 patent is instituted with respect to all grounds set forth in the Petition; and

FURTHER ORDERED that, pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4(b), *inter partes* review of the '863 patent shall commence on the entry date of this Order, and notice is hereby given of the institution of a trial.

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