

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

NIUM PTE. LTD,
Petitioner

v.

INTERCURRENCY SOFTWARE LLC,
Patent Owner.

Case No. IPR2025-01586
U.S. Patent No. 11,620,701

**PETITION FOR *INTER PARTES* REVIEW
OF U.S. PATENT NO. 11,620,701**

TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	THE '701 PATENT	2
	A. Overview	2
	B. Prosecution History	7
III.	POSITA	9
IV.	CLAIM CONSTRUCTION	9
	A. “prevailing exchange rate”	9
	B. “prevailing currency exchange rate”	10
V.	PETITION GROUNDS	10
VI.	PRIOR ART.....	12
	A. Calo (EX1004)	12
	B. Rude (EX1005).....	15
	C. Sellberg (EX1006).....	18
	D. Szoc (EX1007)	18
	E. Davidowitz (EX1008)	19
VII.	CLAIMS 1-16 ARE UNPATENTABLE	20
	A. Ground 1: Claims 1, 3-4, 6-9, 11-12, and 14-16 Would Have Been Obvious Over Calo and Rude, in view of Sellberg.....	20
	1. Motivation to Combine Calo, Rude, and Sellberg.....	20
	2. Independent Claim 1	25
	a) Preamble: “A platform for trading an asset, the platform comprising:”	25

b)	[1.a]: “a trading server, coupled to a client machine associated with a user, receiving an indicator of a first currency from the client machine,”	26
c)	[1.b]: “wherein the trading server is configured to couple to at least one currency exchange server and at least one market exchange server,”	29
d)	[1.c]: “the trading server is further configured to calculate costs and fees in the first currency to own or sell the asset being traded in a second currency,”	33
e)	[1.d]: “the costs and fees are caused to be displayed on a display device of the client machine and are dynamically changed in accordance with a first prevailing exchange rate between the first currency and the second currency, and even when a market value of the asset remains unchanged,”	35
f)	[1.e]: “and wherein the trading server is configured to conduct a transaction of the asset by transporting a transaction request to the market exchange server upon receiving an order from the trader,”	39
g)	[1.f]: “and reach a settlement based on a second prevailing exchange rate as soon as the transaction of the asset is performed in accordance with conditions set by the trader,”	40
h)	[1.g]: “and wherein the second prevailing exchange rate is calculated from the at least one currency exchange server right before the transaction takes place,”	42

i)	[1.h]: “executed costs and fees in the settlement per the second prevailing exchange rate are not identical to the displayed costs and fees with the first prevailing exchange before the transaction of the asset took place.”	43
3.	Claim 3: “The platform as recited in claim 1, wherein the first prevailing exchange rate and the second prevailing exchange rate are different.”	45
4.	Claim 4: “The platform as recited in claim 3, wherein the first prevailing exchange rate and the second prevailing exchange rate are automatically calculated in different times by the trading server from a network including the at least one currency exchange server.”	45
5.	Claim 6	46
a)	6[a]: “The platform as recited in claim 1, wherein the trading server is caused to be coupled to the client machine, and configured to couple to the at least one currency exchange server and the at least one market exchange server via a network,”	46
b)	6[b]: “the trading server is configured to further: calculate automatically the second prevailing exchange rate from the network to ensure that the transaction only happens when the conditions are met with the second prevailing exchange rate.”	47
6.	Claim 7: “The platform as recited in claim 1, wherein the client machine is a desktop, a laptop, a server computer, a handheld wireless device, or a mobile phone.”	48
7.	Independent Claim 8	48

a)	Preamble: “A platform for trading an asset, the platform comprising:”	48
b)	8[a]: “a client machine associated with a user, coupled to a trading server via the Internet, executing a software product to send an indicator of a first currency to the trading server,”	49
c)	8[b]: “wherein the trading server is configured to couple to at least one currency exchange server and at least one market exchange server and”	49
d)	8[c]: “configured to calculate costs and fees in the first currency to own or sell the asset being traded in second currency,”	50
e)	8[d]: “the client machine is caused to display the costs and fees on a display device thereof, the costs and fees being displayed are dynamically changed in accordance with a first prevailing exchange rate between the first currency and the second currency, and even when the market value of the asset remains unchanged, and,”	50
f)	8[e]: “wherein a transaction of the asset is conducted in the trading server in response to the market exchange server upon receiving an order from the client machine,”	50
g)	8[f]: “the client machine receives a settlement based on a second prevailing exchange rate, wherein the second prevailing exchange rate is calculated by the trading server from the at least one currency exchange server right before the transaction takes place,”	50

h)	8[g]: “executed costs and fees in the settlement per the second prevailing exchange rate are not identical to the displayed costs and fees with the first prevailing exchange before the transaction of the asset took place.”	51
8.	Claim 9: “The platform as recited in claim 8, wherein the client machine is caused to keep displaying the costs and fees being dynamically updated in accordance with the first prevailing exchange rate updated constantly, even when the market value of the asset remains unchanged.”	51
9.	Claim 11: “The platform as recited in claim 8, wherein the first prevailing exchange rate and the second prevailing exchange rate are different.”	53
10.	Claim 12: “The platform as recited in claim 11, wherein the first prevailing exchange rate and the second prevailing exchange rate are automatically calculated in the trading server in different times by the trading server from a network including the at least one currency exchange server.”	53
11.	Claim 14	53
a)	14[a]: “The platform as recited in claim 8, wherein the client machine is coupled to the trading server, the at least one currency exchange server and the at least one market exchange server via a network, and causes the trading server to:”	53
b)	14[b]: “calculate automatically the second prevailing exchange rate from the network to ensure that the transaction only happens when the conditions are met with the second prevailing exchange rate.”	54

12.	Claim 15: “The platform as recited in claim 8, wherein the client machine is a desktop, a laptop, a server computer, a handheld wireless device, or a mobile phone.”	54
13.	Claim 16: “The platform as recited in claim 4, wherein the costs and fees displayed on the display device of the client machine are dynamically updated in time per the first prevailing exchange rate or the second prevailing exchange rate.”	54
B.	Ground 2: Claims 1, 3-4, 6-9, 11-12, and 14-16 Would Have Been Obvious Over Calo and Rude, in view of Szoc	55
1.	Motivation to Combine Szoc	55
2.	Independent Claim 1	57
a)	Preamble: “A platform for trading an asset, the platform comprising:”	57
b)	1[a]: “a trading server, coupled to a client machine associated with a user, receiving an indicator of a first currency from the client machine,”	57
c)	1[b]: “wherein the trading server is configured to couple to at least one currency exchange server and at least one market exchange server,”	57
d)	1[c]: “the trading server is further configured to calculate costs and fees in the first currency to own or sell the asset being traded in a second currency,”	58
e)	1[d]: “the costs and fees are caused to be displayed on a display device of the client machine and are dynamically changed in accordance with a first prevailing exchange	

	rate between the first currency and the second currency, and even when a market value of the asset remains unchanged.”	58
f)	1[e]: “and wherein the trading server is configured to conduct a transaction of the asset by transporting a transaction request to the market exchange server upon receiving an order from the trader.”	58
g)	1[f]: “and reach a settlement based on a second prevailing exchange rate as soon as the transaction of the asset is performed in accordance with the conditions set by the trader,”	58
h)	1[g]: “and wherein the second prevailing exchange rate is calculated from the at least one currency exchange server right before the transaction takes place,”	59
i)	1[h]: “executed costs and fees in the settlement per the second prevailing exchange rate are not identical tot eh displayed costs and fees with the first prevailing exchange before the transaction of the asset took place.”	60
3.	Claims 3, 4, 6, and 7	60
4.	Independent Claim 8	60
a)	Preamble: “A platform for trading an asset, the platform comprising:”	60
b)	8[a]: “a client machine associated with a user, coupled to a trading server via the Internet, executing a software product to send an indicator of a first currency to the trading server,”	60

- c) 8[b]: “wherein the trading server is configured to couple to at least one currency exchange server and at least one market exchange server and” 61
 - d) 8[c]: “configured to calculate costs and fees in the first currency to own or sell the asset being traded in second currency,” 61
 - e) 8[d]: “the client machine is caused to display the costs and fees on a display device thereof, the costs and fees being displayed are dynamically changed in accordance with a first prevailing exchange rate between the first currency and the second currency, and even when the market value of the asset remains unchanged, and,” 61
 - f) 8[e]: “wherein a transaction of the asset is conducted in the trading server in response to the market exchange server upon receiving an order from the client machine,” 61
 - g) 8[f]: “the client machine receives a settlement based on a second prevailing exchange rate, wherein the second prevailing exchange rate is calculated by the trading server from the at least one currency exchange server right before the transaction takes place,” 61
 - h) 8[g]: “executed costs and fees in the settlement per the second prevailing exchange rate are not identical to the displayed costs and fees with the first prevailing exchange before the transaction of the asset took place.” 61
5. Claim 9: “The platform as recited in claim 8, wherein the client machine is caused to keep displaying the costs and fees being dynamically

	updated in accordance with the first prevailing exchange rate updated constantly, even when the market value of the asset remains unchanged.”	62
6.	Claims 11, 12, 14, and 15	63
7.	Claim 16: “The platform as recited in claim 4, wherein the costs and fees displayed on the display device of the client machine are dynamically updated in time per the first prevailing exchange rate or the second prevailing exchange rate.”	63
C.	Ground 3: Claims 2, 5, 10 and 13 Would Have Been Obvious Over Calo, Rude, and Sellberg, in view of Davidowitz	64
1.	Motivation to Combine Davidowitz	64
2.	Claim 2	66
	a) 2[a]: “The platform as recited in claim 1, wherein the trading server is configured to: monitor the conditions in conjunction with a prevailing exchange rate calculated from the at least one currency exchange server and the market exchange server; and”	66
	b) 2[b]: “perform the transaction of the asset only when the conditions are met, wherein the conditions are periodically checked with respect to an updated market value of the asset and an updated prevailing currency exchange rate calculated from the at least one currency exchange server right before the transaction takes place.”	68
3.	Claim 5	69
	a) 5[a]: “The platform as recited in claim 1, wherein the trading server is configured to: receive periodically an updated market value	

	of the asset being traded from the market exchange server;”	69
b)	5[b]: “receive periodically an updated prevailing currency exchange rate from the exchange server; and”	71
c)	5[c]: “determine whether the conditions have been met together with the updated market value of the asset and the updated prevailing currency exchange rate.”	72
4.	Claim 10	73
a)	10[a]: “The platform as recited in claim 8, wherein the client machine shows a settlement soon after the trading server is configured to perform the transaction of the asset only when the conditions are met;”	73
b)	10[b]: “wherein the conditions are periodically checked in the trading server with respect to an updated market value of the asset and an updated prevailing currency exchange rate calculated from the at least one currency exchange server right before the transaction takes place.”	74
5.	Claim 13: “The platform as recited in claim 8, wherein the client machine is configured to receive periodically an updated market value of the asset being traded from the market exchange server as a result of an updated prevailing currency exchange rate.”	75
VIII.	MANDATORY NOTICES PURSUANT TO 37 C.F.R. §42.8	76
A.	Real Parties-In-Interest under 37 C.F.R. §42.8(b)(1).	76
B.	Related Matters Under 37 C.F.R. §42.8(b)(2).	76
C.	Lead and Back-up Counsel under 37 C.F.R. §42.8(b)(3).	77

Patent No. 11,620,701
Petition for *Inter Partes* Review

D.	Service Information under 37 C.F.R. §42.8(b)(4).....	78
IX.	GROUND FOR STANDING.....	78
X.	PAYMENT OF FEES	78
XI.	STATEMENT OF PRECISE RELIEF REQUESTED	78

TABLE OF AUTHORITIES

	Page(s)
Cases	
<i>Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co. Ltd.</i> , 868 F.3d 1013 (Fed. Cir. 2017)	9
Other Authorities	
37 C.F.R. §42.15(a).....	78
37 C.F.R. §42.100(b)	9
37 C.F.R. §42.104(a).....	78

PETITIONER’S EXHIBIT LIST

No.	Reference	Referred to As
1001	U.S. Patent No. 11,620,701	’701 Patent
1002	Prosecution History of U.S. Patent No. 11,620,701	’701 Patent File History
1003	Declaration of Marc Reid	Reid Decl.
1004	U.S. Patent Pub. US2002/0087454A1	Calo
1005	U.S. Patent Pub. US2006/0095361A1	Rude
1006	U.S. Patent Pub. US2004/0236664A1	Sellberg
1007	U.S. Patent Pub. US2002/0023053 A1	Szoc
1008	U.S. Patent Pub. US2004/0267655A1	Davidowitz
1009	Complaint, <i>Intercurrency Software LLC v. Nium Pte. Ltd.</i> , 2:25-cv-701 (E.D. Tex. July 9, 2025), Dkt. 1	Original Complaint
1010	Patent Owner’s Infringement Contentions	Infringement Contentions
1011	<i>Askelladden LLC v. Intercurrency Software LLC</i> , IPR2024-00375, Paper 17, Final Written Decision (PTAB, Jul. 1, 2025)	’863 Patent FWD
1012	<i>Askelladden LLC v. Intercurrency Software LLC</i> , IPR2024-00376, Paper 16, Final Written Decision (PTAB, Jul. 14, 2025)	’107 Patent FWD I
1013	<i>Askelladden LLC v. Intercurrency Software LLC</i> , IPR2024-00377, Paper 16, Final Written Decision (PTAB, Jul. 14, 2025)	’107 Patent FWD II
1014	<i>Askelladden LLC v. Intercurrency Software LLC</i> , IPR2024-00378, Paper 17, Final Written Decision (PTAB, Jul. 1, 2025)	’930 Patent FWD
1015	Dagfinn Rime, <i>New Electronic Trading Systems in Foreign Exchange Markets</i> , New Economy Handbook, Chapter 21, pp. 469-504 (2003)	Electronic Trading Systems

No.	Reference	Referred to As
1016	Lawrence J. Gitman & Michael D. Joehnk, <i>Fundamentals of Investing</i> (5th ed. 1993)	Fundamentals of Investing
1017	Peter Rosenstreich, <i>FOREX Revolution, An Insider's Guide to the Real World of Foreign Exchange Trading</i> 24-25 (1995). Library of Cong.: Cat. No. 2005921697	Rosenstreich
1018	Cornelius Luca, <i>Trading in the Global Currency Markets, An Insider's Guide to the Real World of Foreign Exchange Trading</i> (2005). Library of Cong.: ISBN 0-13-293424-8, HG3851.L83 1995	Luca
1019	Traders Magazine, <i>OMS Solutions: The Buysides Key to the Trading Highway</i> , Editorial Staff, July 5, 2006	Traders Magazine

I. INTRODUCTION

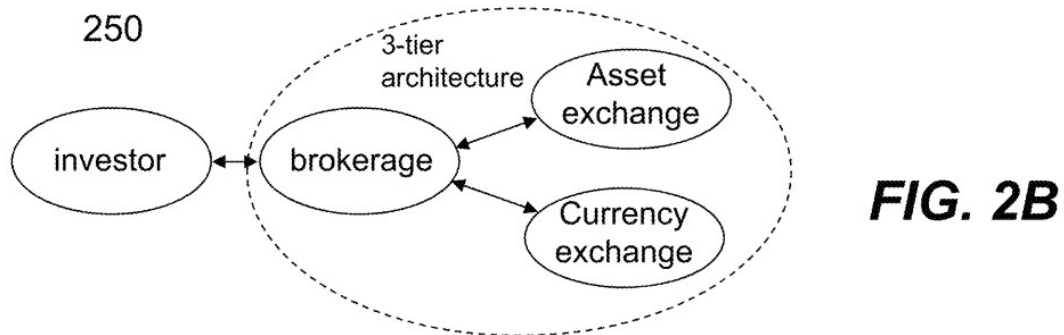
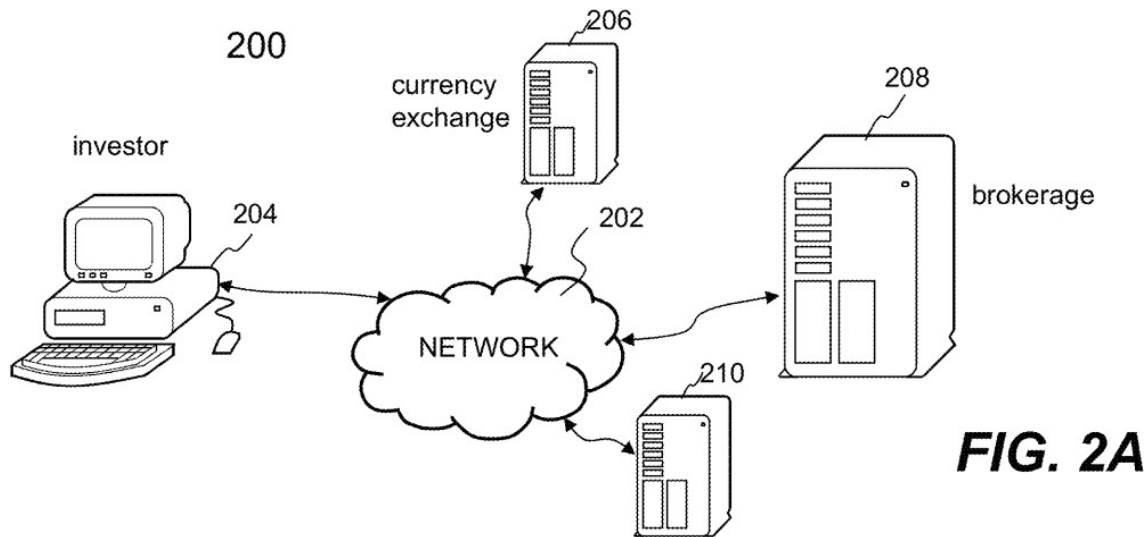
Nium Pte. Ltd. (“Petitioner”) respectfully requests inter partes review and cancellation of claims 1-16 (“the Challenged Claims”) of U.S. Patent 11,620,701 (the “’701 Patent”) (EX1001). The ’701 Patent generally concerns a securities trading platform that employs conventional computing technologies that have been long-known and well-established in the art. It purports to utilize these standard technologies to implement known securities trading methodologies. The ’701 Patent belongs to a family of four related patents with the other three having been declared unpatentable earlier this year in Final Written Decisions (“FWD”) by the Patent Trial and Appeal Board (“PTAB”). EX1011-1014. The prior art references relied upon in the IPR proceedings for these three related family members, which were used to invalidate them, are the same references being asserted in the present IPR. Indeed, the ’701 Patent is no different, and in fact received obviousness-type double patenting rejections based on these now-invalid related patents during prosecution. EX1002, 62-63, 93-94. To overcome these rejections, the applicant filed a terminal disclaimer. *Id.* For analogous reasons consistent with the Board’s other FWDs (EX1011-1014), Petitioner respectfully requests that the PTAB institute this IPR and determine that the Challenged Claims are unpatentable.

II. THE '701 PATENT

A. Overview

The '701 Patent, titled “Platform for Trading Assets in Different Currencies” was filed on September 19, 2022, and issued on April 4, 2023. EX1001, 1; EX1003, ¶39. The '701 Patent terminally disclaims U.S. Patent Nos. 10,062,107; 11,449,930; and 10,776,863. EX1002, 36. Each of these terminally-disclaimed patents has been found unpatentable by the PTAB. EX1011-1014. The '701 Patent generally relates to “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.” EX1001, 1:7-12; EX1003, ¶40. It 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.” EX1001, 2:23-28, FIG.2A-B. In this system, “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.*, 2:29-33. As such, the '701 Patent recognizes that “a trader always knows exactly what he/she may end up with [for] a transaction of an asset.” *Id.*, 2:33-34.

Figures 2A-B of the '701 patent (reproduced below) illustrate an exemplary system. *Id.*, 3:62-64.



The system includes a network (202) (e.g., the Internet), with a client machine (204) accessible by traders. *Id.*, 4:44-49; EX1003, ¶41. Three servers (206, 208, and 210), are coupled to a network (202): The first server (206) represents a bank or exchange “providing a currency exchange rate to buy or sell a type of currency for another;” The second server (208) represents a brokerage that enables trader transactions; The third server (210) represents an asset or market exchange “where an asset is caused to change hands.” EX1001, 4:66-5:6. These three servers interconnect through a network infrastructure to provide “all transactions in a local currency” through “real-time transactional level currency conversion.” *Id.*, 5:21-27.

To complete a transaction, “the currency exchange converts all settlements to the preferred currency per the prevailing exchange rate, as if the item has changed hands in the preferred currency.” *Id.*, 6:4-8. This real-time conversion capability at the individual transaction level allows, “a trader [to] know[] 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.*, 5:16-20.

Figure 3 of the '701 patent (reproduced below) illustrates a process (300) for conducting a trader transaction, which can be implemented through software, hardware, or both. The process demonstrates a transaction in a chosen currency other than a market currency. *Id.*, 5:33-35.

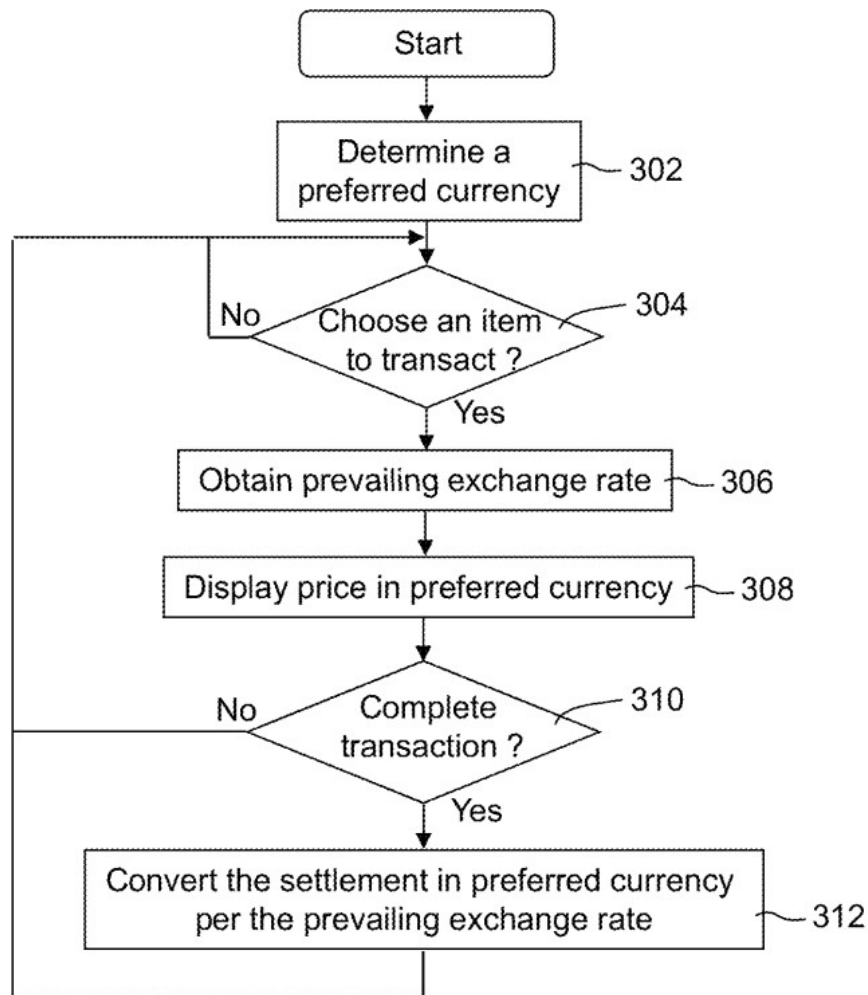


FIG. 3

The process starts by identifying the trader's preferred currency (302). EX1001, 5:33-40; EX1003, ¶42. After this determination, "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." EX1001, 5:40-43. At step 304, "the 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.*, 5:44-46. Subsequently, the current exchange rate is retrieved (306), and the complete price (encompassing all costs and fees) is shown in the

trader's preferred currency (308). *Id.*, 5:56-61. The trader then makes a decision to either purchase or sell the asset (310). Should he/she choose to move forward, the transaction is completed in the preferred currency (312). *Id.*, 5:62-6:3.

Figure 4 of the '701 patent (reproduced below) incorporates a limit order feature (406) that enables traders to set a specific price point at which they are prepared to execute a buy or sell order. EX1003, ¶43.

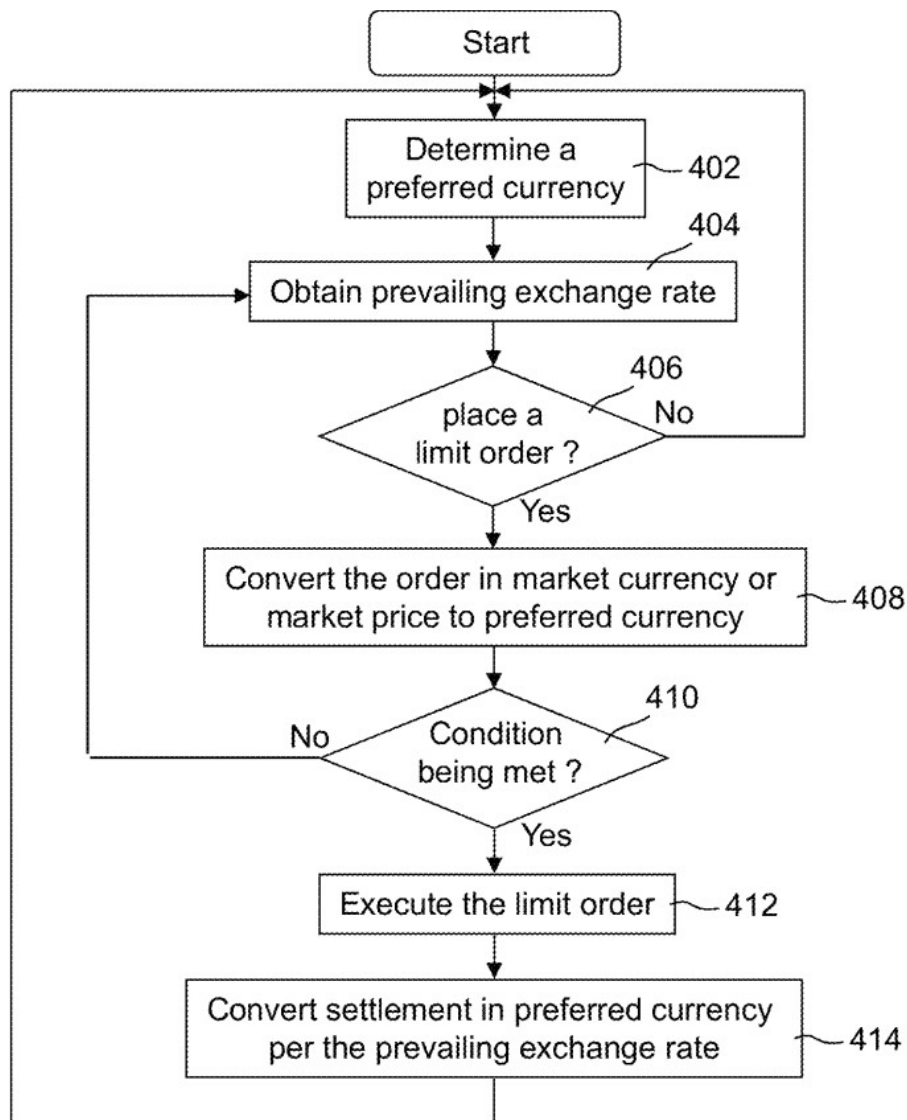


FIG. 4

EX1001, FIG.4, 6:56-7:2. Limit order functionality was already well-known in the industry by 2007. EX1003, ¶¶30-31, 44; EX1016, 45-46, 470.

B. Prosecution History

The '701 Patent was granted following limited prosecution. EX1002; EX1003, ¶50. During prosecution, the Examiner recognized that each individual element was known in the art but allowed the claims based on the claimed combination. EX1002, 105-106. The Examiner did not consider any of the Calo, Szoc, or Davidowitz references prior to allowing the '701 Patent's claims. See *id.*, 65, 108.

The '701 Patent issued from U.S. Patent Application No. 17/948,217 (the "'217 Application"), filed on September 19, 2022, which claims priority through a chain of continuation applications. EX1001, 1; EX1003, ¶51. For example, the '217 Application is a continuation of the application that became U.S. Patent No. 11,449,930 (the "'930 Patent"), filed on September 14, 2020. The '930 Patent is a continuation of the application that became U.S. Patent No. 10,776,863 (the "'863 Patent"), filed on August 27, 2018. The '863 Patent is a continuation of the application that became U.S. Patent No. 10,062,107, filed on April 18, 2007. *Id.*¹

¹ Solely for purposes of this IPR, Petitioner assumes—without conceding—that the priority date for the Challenged Claims is April 18, 2007. All of the Grounds herein

On November 9, 2022, in the first (and only) Office Action prior to notice of allowance, the Examiner issued a non-final rejection of all 15 claims based on non-statutory obviousness-type double patenting over claims 1-15 of the '930 Patent, claims 1-12 of the '863 Patent, and claims 1-36 of the '107 Patent. EX1002, 62-63; EX1003, ¶52. The Examiner determined that, while the claims were not identical, they were not patentably distinct because all claim sets were directed to methods and systems for providing a consolidated trading platform that facilitates asset trading in a preferred currency, with overlapping claim limitations. EX1002, 63. The Examiner additionally concluded that all limitations of the pending claims were substantially encompassed by the conflicting claims from the referenced and related patents. EX1002, 62-63; EX1003, ¶52.

On January 3, 2023, the Applicant responded by making minor amendments to claims 1, 2, 4, 6, 8-10, 12 and 14; adding a new claim (claim 16); and filing a terminal disclaimer over the claims of the '930, '863 and '107 Patents. EX1002, 86-91, 93-94; EX1003, ¶52. Subsequently, on January 20, 2023, the Examiner issued a Notice of Allowance. EX1002, 100; EX1003, ¶53.

rely upon references that precede this priority date under the applicable pre-AIA provisions.

On July 1 and July 14, 2025, the PTAB issued FWDs determining that all claims of the '930, 836, and '107 Patents are unpatentable—these are the same patent claims that the Examiner had previously determined were patentably indistinct from the '701 Patent during its prosecution. EX1002, 62-63; EX1003, ¶54; EX1011-1014.

III. POSITA

For the purposes of this Petition only, a person of ordinary skill in the art (“POSITA”) as of the April 18, 2007, would have possessed 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. EX1003, ¶¶45-46. The prior art also reflects this level of skill.

IV. CLAIM CONSTRUCTION

Petitioner interprets the claims “in accordance with the[ir] ordinary and customary meaning . . . as understood by one of ordinary skill in the art.” 37 C.F.R. §42.100(b); EX1003, ¶¶55-56. The Board is not required to construe any claim terms prior to finding the Challenged Claims invalid. *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co. Ltd.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017).

A. “prevailing exchange rate”

Claims 1-4, 6, 8, 11, 14 and 16 each include the term “prevailing exchange rate.” EX1001, 8:46-10:59. A POSITA would have understood the ordinary meaning of “prevailing exchange rate” to refer to “a selected current rate.” EX1003, ¶57. This

meaning is consistent with how the term is used throughout the '701 Patent's specification. The specification describes only two types of rates: a "forward" rate and a spot rate—both representing selected current exchange rates. EX1001, 6:32-54, 7:56-58. In IPR2024-00378 involving the related '930 Patent, the Patent Owner agreed with this claim construction. EX1014, 10.

B. "prevailing currency exchange rate"

Claims 2, 5, 10 and 13 include the term "prevailing currency exchange rate." EX1001, 8:46-10:59. A POSITA would have understood that this rate is equivalent to the "prevailing exchange rate," but specifically pertains to currency exchange rates. Should the Board determine that claim construction is necessary, "prevailing currency exchange rate" should be interpreted to include any selected current currency exchange rate, including "spot" rates or "forward rates." EX1003, ¶58. In IPR2024-00378 involving the related '930 Patent, the Patent Owner did not dispute this claim construction. EX1014, 10.

V. PETITION GROUNDS

Petitioner respectfully requests that the Board institute a trial for IPR and cancel claims 1-16 of the '701 Patent based on the following Grounds. EX1003, ¶59.

Ground	Claims	Statutory Basis
1	1, 3-4, 6-9, 11-12, and 14-16	35 U.S.C. §103 Calo ² in view of Rude ³ , in further view of Sellberg ⁴
2	1, 3-4, 6-9, 11-12, and 14-16	35 U.S.C. §103 Calo in view of Rude, in further view of Szoc ⁵
3	2, 5, 10, and 13	35 U.S.C. §103 Calo in view of Rude, in further view of Sellberg, in further view of Davidowitz ⁶

The Petition for IPR is supported by the declaration of Marc Reid, a qualified technical expert. See *generally*, EX1003.

² U.S. Patent Pub. No. 2002/0087454A1, published July 4, 2002 (EX1004) (“Calo”).

³ U.S. Patent Pub. No. 2006/0095361A1, published May 4, 2006 (EX1005) (“Rude”).

⁴ U.S. Patent Pub. No. 2004/0236664A1, published November 25, 2004 (EX1006) (“Sellberg”).

⁵ U.S. Patent Pub. No. 2002/0023053A1, published February 21, 2002 (EX1007) (“Szoc”).

⁶ U.S. Patent Pub. No. 2004/0267655A1, published December 30, 2004 (EX1008) (“Davidowitz”).

VI. PRIOR ART

A. Calo (EX1004)

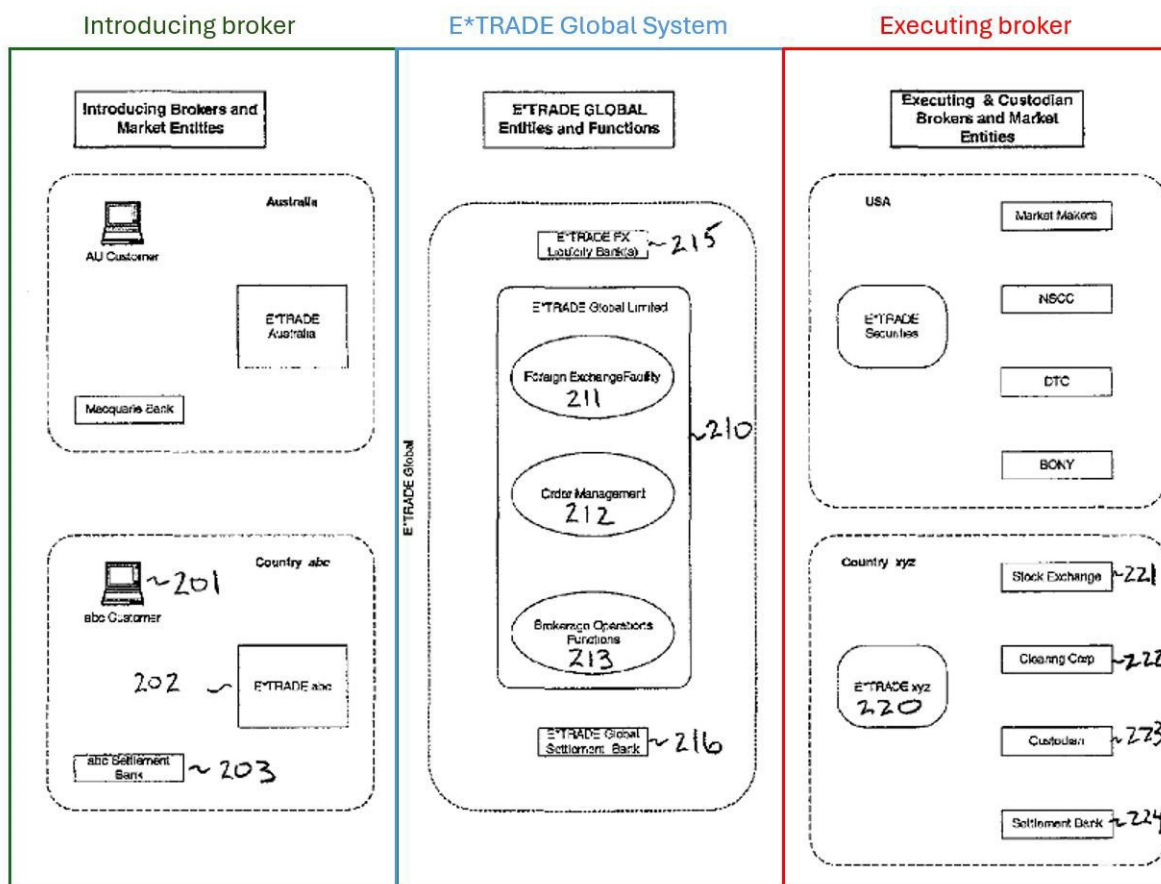
Calo, titled “Global Trading System” was filed on January 24, 2001 and published on July 4, 2002. It qualifies as prior art under at least pre-AIA 35 U.S.C. §102(a)-(b) and (e). EX1004, 1. Calo was not cited or considered by the Examiner during prosecution of the ’701 Patent. EX1002, 65, 108.

Calo describes “a globalized trading network that permits trading of stocks and other securities and commodities across international boundaries.” EX1003, ¶60; EX1004, [0003]. The trading methodologies include “accepting an electronic transaction order for the purchase or sale of a security, vetting the order” for sufficient funds, “transmitting the transaction order to a global hub, purchasing or selling the security, and adjusting the customer account accordingly.” EX1004, [0009].

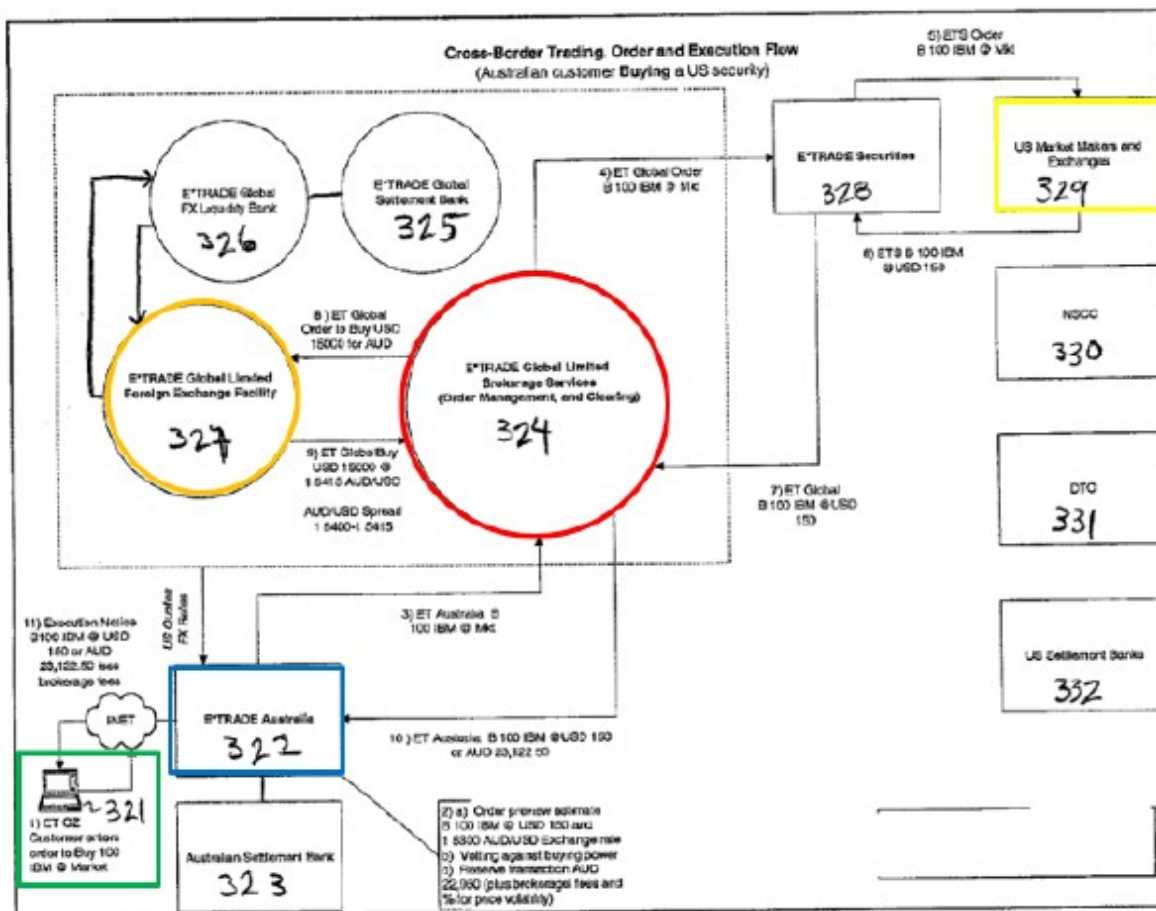
Calo presents systems and methods that give customers real-time previews of transaction order prices, such as stock purchases or sales of other securities or commodities, in the target market currency and a customer’s native or preferred currency, while ensuring all costs and exchange rates are locked in before completing the purchase (i.e., settlement). EX1003, ¶61; EX1004, [0030], [0038], [0057]. Calo explains that real-time price quotes and/or settlement amounts in the target market currency, including all applicable fees or commissions, are

automatically converted into the customer's preferred currency using foreign exchange rates sourced from E*TRADE Global information systems. EX1003, ¶62; EX1004, [0030], [0057].

Figure 2 of Calo presents an exemplary network architecture following the preferred embodiment, featuring a three-tier structure comparable to that described in the '701 Patent. This structure comprises: (1) the introducing broker, (2) the E*TRADE global system, and (3) the executing broker. EX1003, ¶63; EX1004, [0027]. Calo Figure 2 is displayed below:



Likewise, Calo Figure 3A illustrates the process by which a cross-border trading order initiated by a customer (321) is electronically transmitted through an introducing affiliate (322) to Global Brokerage Service (“GBS”) (324), and subsequently routed to both a U.S. Market Exchange (329) for order execution and a Foreign Exchange Facility (327) before settlement:



Prior to submitting an order, the trader receives a preview price displayed in their native currency, which is “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.” EX1004, [0030]. After the order is submitted (301), an order preview is created (302)

that shows “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,” estimated commissions and fees, and a reserve buffer for exchange rate fluctuations. *Id.*; EX1003, ¶¶63-64. The order is subsequently transmitted and executed on the relevant market exchange. Calo explains that “[p]referably immediately after the equity order is executed and reported[,]” the GBS initiates a foreign exchange transaction to convert Australian dollars to U.S. dollars. EX1004, [0030]. At step 310, the GBS then provides the user with a trade confirmation that includes both the USD execution price and the “locked-in AUD value” of the trade along with associated commissions and fees. *Id.*

Calo also accommodates different order types, including limit orders, which ensure execution at a specified price and require the system to coordinate costs, including currency conversions, according to the trader’s designated parameters. EX1003, ¶65; EX1004, [0070].

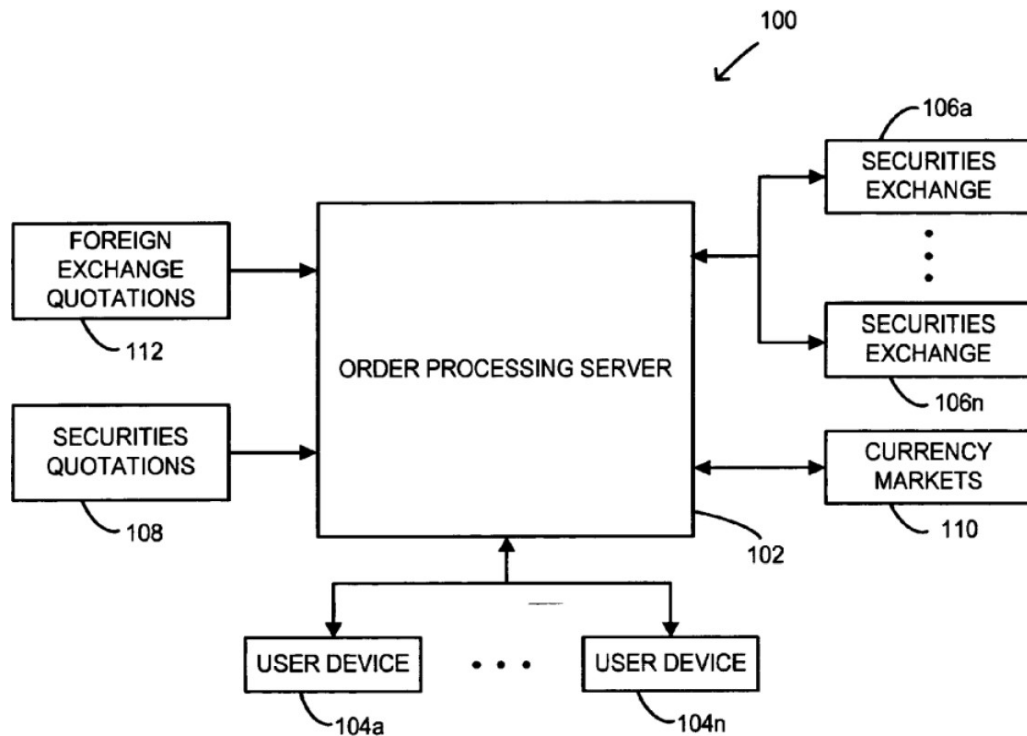
B. Rude (EX1005)

Rude, titled “Methods and apparatus for automatic settlement of foreign securities trades in trader’s operating currency” was filed on October 29, 2004 and published on May 4, 2006. It qualifies as prior art under at least pre-AIA 35 U.S.C. §102(a)-(b) and (e). EX1005, 1.

Rude describes systems and methods for handling foreign securities trading transactions that incorporate both market and currency exchanges in a user's preferred currency. EX1003, ¶66; EX1005, [0001]-[0002], [0004], [0021], [0023], [0029], FIG.1.

Rude addresses the processing of foreign securities trading transactions so that price quotes from foreign securities exchanges 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.” EX1003, ¶67; EX1005, [0019]. When a trader places an order for a foreign security, the system accepts the order input, processes the transaction in the local currency of the foreign exchange, and computes the net settlement amount based on the execution price and relevant fees. EX1005, [0005], [0019]. Next, this net settlement amount is automatically converted into the trader's operating currency via a forward foreign exchange transaction, thus reducing the foreign exchange risk associated with the transaction. *Id.*, [0019].

Figure 1 presents a block diagram of Rude's system:



The above-referenced system describes a “trading system 100 includ[ing] a number of different components which cooperatively operate to process foreign securities trading orders and related foreign exchange transactions.” *Id.* [0020]; EX1003, ¶¶68-69. An “order processing server” communicates with foreign exchange markets, and sources of foreign exchange price quotes. EX1005, [0021]. The order processing server receives market data such as “current price quotations for securities to be traded via the trading system[.]” *Id.* [0023], [0054]-[0055]. These quotations “may be provided in the local currencies of the various securities exchanges.” *Id.*

C. Sellberg (EX1006)

Sellberg, titled “Automatic Generation of an Order in an Instrument in a Specified Currency” was filed on May 23, 2003 and published on November 25, 2004. It qualifies as prior art under pre-AIA 35 U.S.C. §102(a)-(b) and (e).

Sellberg describes a trading platform that allows users to submit orders in their preferred currency (e.g., EUR) for financial instruments that are traded in a different currency (e.g., USD). EX1003, ¶¶70-71; EX1006, [0001], [0004]-[0005], [0022]-[0023]. The system “repeatedly and automatically” receives updated exchange rates—e.g., “several times a second”— from a market maker or currency market, thereby ensuring that real-time guaranteed rates are available for transactions. EX1006, [0024]-[0025]. When a trader places an order in a currency that differs from the market currency, the system utilizes the most current exchange rates available at the moment the order is received—preferably, “the last received updated exchange rate”—to determine the transaction amount. *Id.*, [0024]-[0025]; EX1003, ¶72.

D. Szoc (EX1007)

Szoc was filed on April 4, 2001 and published on February 21, 2002. It qualifies as prior art under at least 35 U.S.C. §§102(a)-(b) and (e). Szoc was not cited or considered by the Examiner during prosecution of the ’701 Patent. EX1002, 65, 108.

Szoc describes “providing real-time foreign exchange rate quotes, cross-border payments, and other financial information and services to clients over the Internet[.]” EX1007, [0005]. Szoc emphasizes the financial risk and uncertainty created by volatile and fluctuating foreign exchange rates, especially in cross-border transactions. *Id.*, [0009]. To address this issue, Szoc offers real-time foreign exchange rate quotes through an interface that presents a list of foreign exchange rates obtained from a quote server in relation to the client’s chosen native currency. *Id.*, [0083]. The system includes a scrolling quote bar that shows continuously updating exchange rates in real-time. *Id.*, FIG.4A-4B, [0083], [0101]; EX1003, ¶¶73-74.

E. Davidowitz (EX1008)

Davidowitz was filed on July 7, 2003 and published on December 30, 2004. Davidowitz qualifies as prior art under at least 35 U.S.C. §§102(a)-(b) and (e). Davidowitz was not cited or considered by the Examiner during prosecution of the ’701 Patent. EX1002, 65, 108.

Davidowitz describes a system for conducting trades across multiple markets, including foreign markets, with built-in automatic foreign exchange hedging to reduce currency risk. EX1008, [0003], [0007]. The trader’s workstation presents real-time market information, including security prices in foreign currencies, updated through a data feed supplying exchange rates. *Id.*, [0036], [0041]. A spread

engine analyzes this information to trigger orders when market conditions satisfy predetermined criteria, executing both security transactions and foreign exchange orders to hedge currency exposure at the time of the transaction. *Id.*, [0031]. The client-server architecture facilitates automated trading operations and dynamic data updates. *Id.*, [0008]; EX1003, ¶75.

VII. CLAIMS 1-16 ARE UNPATENTABLE

A. Ground 1: Claims 1, 3-4, 6-9, 11-12, and 14-16 Would Have Been Obvious Over Calo and Rude, in view of Sellberg

1. Motivation to Combine Calo, Rude, and Sellberg

A POSITA would have been motivated to combine the consolidated trading platforms of Calo and Rude with Sellberg's teachings regarding updated exchange rates for currency translation in transactions conducted in a currency that differs from the market currency.

Initially, Calo, Rude and Sellberg constitute analogous art, and they operate within the same field as the '701 Patent—automated financial trading systems that utilize foreign exchange transactions. EX1001, 1:6-12; EX1003, ¶¶76- 77. Calo and Rude describe very similar consolidated trading platforms that automatically settle trade transactions in a preferred currency. EX1004, [0008], [0026]; EX1005, [0004], [0062]. Sellberg allows traders to submit orders in a different currency than the instrument's native currency, with automated currency conversion managed within the trading environment. EX1006, [0005]-[0007]. Each reference presents electronic

trading platforms that automate trades involving currency exchanges. EX1003, ¶78. Similarly, each reference describes facilitating the preview and/or settlement of orders for stocks, securities, or other commodities in a trader's preferred currency instead of the local market currency. EX1004, [0008]; EX1005, [0005]; EX1006, [0012].

The references are also relevant to the problems the '701 Patent intended to address, including the issue that "currency conversion is not at a transactional level." EX1001, 1:61-62. Each reference acknowledges that traders usually operate in a preferred (e.g., native) currency that differs from the local currency of the foreign exchange where a particular security is traded. EX1004, [0006]; EX1005, [0002]; EX1006, [0003]-[0004]. Previously, such transactions required manually coordinating foreign exchange conversions, resulting in delays, higher costs, and uncertainty. EX1004, [0006]; EX1005, [0002]-[0003]; EX1006, [0003]-[0004]; EX1018, 8. Calo addresses this by providing a preview of the trade in the trader's native currency and executing a corresponding foreign exchange transaction "[p]referably immediately" after the trade is carried out. EX1004, [0030]. Rude automatically initiates a foreign exchange order after the settlement of a trade and converts the net settlement amount into the user's operating currency. EX1005, [0005]. Sellberg permits users to place orders in any specified currency while maintaining a single order book, enabling seamless cross-currency transactions.

EX1006, [0007]-[0009]. Therefore, each reference aims to reduce trading friction by automating the currency exchange process. EX1003, ¶79.

A POSITA would have been motivated to combine Calo's trading system with Rude's trading system to enable a user to specify the user's preferred currency. EX1003, ¶80. Rude's user interface and its coordination with its order processing server allows users to designate a preferred currency for pricing and settlement. EX1004, [0030]; EX1005, [0058]. Integrating Rude's system, particularly its currency indicator feature, with Calo's trading system provides a mechanism for users to declare their native currency, which aligns with Calo's teachings of offering a preview price in a native currency and Calo's objectives of streamlining cross-border trading for users by ensuring predictable pricing in volatile cross-currency markets. EX1003, ¶80.

A POSITA would have expected success in combining Calo and Rude. EX1003, ¶81. Both references employ similar system architectures—Calo with its GBS and Rude with its order processing server, both of which couple to user devices, securities exchanges, and currency markets. EX1004, [0026]-[0028]; EX1005, [0022]-[0024], [0027]. It would have been within a POSITA's capabilities to combine the features of these systems, including implementing Rude's currency indicator feature in Calo, so that Calo's GBS receives an indication of the user's

preferred currency, particularly since Rude's comparable system had already successfully incorporated this feature. EX1003, ¶74; EX1005, [0058].

Only a straightforward modification to Calo's system, which already described a user interacting with the system through a computer, would have been needed to incorporate Rude's functionality. EX1003, ¶81; EX1004, [0027].

A POSITA would likewise have been motivated to combine Sellberg's exchange rate timing and display teachings with Calo (as modified by Rude). EX1003, ¶82. Calo expressly identifies the exchange rate volatility as a problem. EX1004, [0030], [0070]. That same volatility is addressed by Sellberg. In Sellberg, the applied exchange rate is the "last received" rate before the transaction is carried out, ensuring the conversion reflects the most current market conditions at execution. EX1006, [0024]-[0025]. Sellberg further explains that "the trader may continuously follow the updated exchange rates[,]" highlighting that updated rates are both received in real time and are continuously displayed to the user. *Id.*, [0031]. A POSITA would have understood that these features provide traders with the most accurate information at the time of trading and enhance transparency in volatile markets. EX1003, ¶82; EX1017, 25. Sellberg's practice of applying the most current exchange rate at or just before execution and displaying updated rates aligns with Calo's and Rude's aims of minimizing volatility and improving pricing transparency and user control. EX1006, [0022]. Thus, a POSITA would have been motivated to

combine Sellberg's teachings with Calo's system to reduce exposure to rate fluctuations, improve transparency and accuracy in cross-currency pricing, and lessen the need for reserve buffers in Calo's platform. EX1003, ¶82.

A POSITA would have expected success in combining Calo, Rude, and Sellberg based on their comparable system architectures and shared objectives of enabling automatic foreign exchange trading. *Id.*, ¶83. Each system operates on computer-based trading platforms engineered to integrate with existing infrastructure. EX1004, [0027], [0051]; EX1005, [0030], [0037]; EX1006, [0011], [0022]. Sellberg indicates that its methods are "easy to implement in existing trading systems[,]” further confirming their compatibility with Calo and Rude. EX1006, [0010]. Sellberg's system regularly receives updated exchange rates at intervals "from several times a second down to once an hour" from a market maker or currency market, ensuring availability of real-time, guaranteed rates for transactions. *Id.*, [0024]-[0025]. A POSITA would have recognized that integrating Sellberg's teachings with an existing trading system like Calo's, which already receives "real-time conversion" rates, would function reliably and be technically achievable since both systems already use components that retrieve and process external data feeds in real time. EX1003, ¶83; EX1004, [0030].

2. Independent Claim 1

a) Preamble: “A platform for trading an asset, the platform comprising:”

The preamble is non-limiting. However, even if the preamble is limiting, the combination of Calo, Rude, and Sellberg discloses and/or renders obvious this limitation. EX1003, ¶¶84-85. Calo discloses “a computerized system for trading securities and commodities.” EX1004, Abstract, [0007]-[0008]. This system encompasses various assets such as “stocks, options, mutual funds, and fixed income instruments.” *Id.* The system employs a “hub-and- spoke arrangement.” *Id.* Calo’s system includes multiple computerized systems: introducing affiliates manage “customer accounts” and “transaction orders[,]” while executing affiliates carry out “trades in a local stock exchange.” *Id.*, Abstract, [0008], [0012]. A central computerized system called the global hub “rout[es] orders” and manages “foreign exchange transactions.” *Id.* “[A]ll of these entities can be integrated into a single computer system platform.” *Id.*, [0051]. Calo’s networked system of computerized components is designed to enable trading and discloses a platform for asset trading. EX1001, 1:7-12, 2:19-23; EX1003, ¶86. The trading platform, which can include all the platforms needed for the transaction, provides the trader with the costs and fees when the transaction is first contemplated and at the time of the trade. *Infra*, §§VII.A.2.e, VII.A.2.h; EX1003, ¶¶134-135.

- b) [1.a]: “a trading server, coupled to a client machine associated with a user, receiving an indicator of a first currency from the client machine,”

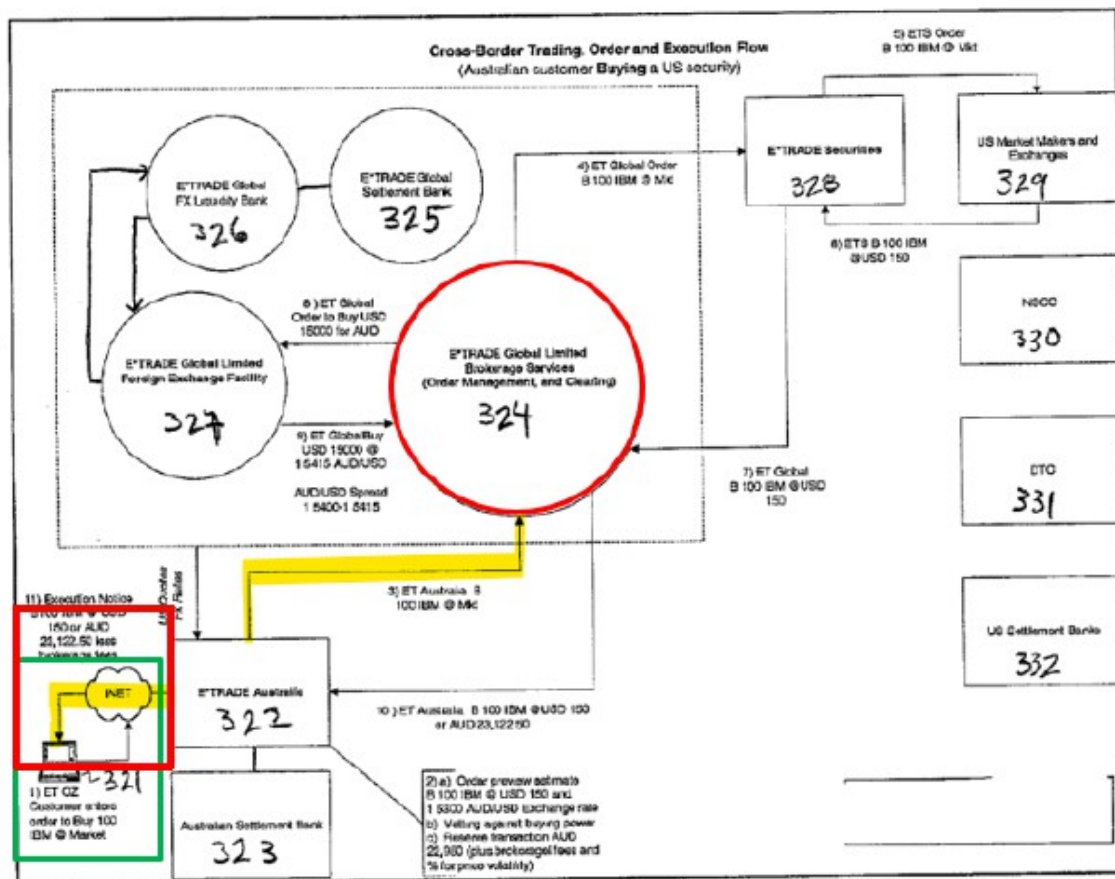
Both Calo and Rude disclose and/or render obvious this limitation. EX1003, ¶¶87-88. Calo describes a trading server through its E*Trade Global Brokerage Service (324) (“GBS”). As illustrated in Figure 3A, Calo’s centralized GBS is coupled to both the Foreign Exchange Facility (327) and the U.S. Market Markers and Exchanges (329).

The processing works as follows: a cross-border trading order begins with a customer (321), passes through an introducing affiliate (322) to the GBS (324), then routes to both a U.S. Market Exchange (329) for execution and a Foreign Exchange Facility (327) before settlement. FIG.3A. Calo’s GBS discloses and/or renders obvious the claimed “trading server” because it routes orders between client machines, currency exchanges, and market exchanges. This is consistent with the ’701 Patent’s trading server that “represents a brokerage” configured to enable trader initiated transactions. EX1001, 5:3-4; EX1003, ¶89; EX1004, [0029]; EX1016, 34.

Calo’s platform operates “on a system of computers or electronics with associated hardware” and employs servers like “Web Server[s]”, which discloses or renders obvious a server to a POSITA. EX1003, ¶90; EX1004, [0028], [0052], FIG.9-10. A POSITA would also have found it obvious to implement the GBS (324) as a server since servers were conventional and well-known in the art. EX1003,

¶¶24-38, 91; EX1016, 34; EX1018, 6. This would have been particularly obvious given Calo's description of GBS as a centralized "hub" that processes trade requests from user-associated client devices. EX1003, ¶¶24-38, 91; EX1004, [0008]. Additionally, Rude discloses an "order processing server 102" with substantially identical functionality to Calo's GBS, making it obvious to implement Calo's GBS as a server in view of Rude. EX1003, ¶¶24-38, 91-92; EX1004, [0029]; EX1005, [0022]-[0023].

Calo's GBS couples to a user-associated client machine. Calo explains that a "customer [can] advantageously access[] the system through an electronic connection, such as with a computer," which is the claimed "client machine associated with the user." EX1003, ¶¶93-94; EX1004, [0027]. Figure 3A shows this client machine (321) electronically coupled to the trading server (GBS 324). EX1004, FIG.3A, [0029].



Calo also discloses price preview functionality in both “the currency of the target market in which the security trades” and the “price of the native currency[.]” EX1004, [0030]. Prices display in the user’s native currency with estimated prices calculated automatically using GBS-obtained information. A POSITA would have understood that Calo’s trading server receives native currency indicators from, for example, client devices to enable proper currency conversion and pricing display. EX1003, ¶95; EX1004, [0030]; EX1016, 34; EX1018, 6.

Rude further discloses receiving a first currency indicator (e.g., a user’s preferred currency) from a client machine, noting that “the user interface of the user

device 104, in cooperation with the order processing server 102, may . . . permit the user to select . . . 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.” EX1003, ¶96, EX1005, [0019], [0058], [0060].

To the extent Patent Owner contends that this limitation 1[a] excludes intermediaries between the client machine and the trading server, it would have been obvious to couple Calo’s client machine to the GBS without an intermediary. EX1003, ¶97. This represents one of a finite number of identified, predictable coupling solutions (with or without an intermediary). *Id.* Such an arrangement would have been obvious considering Rude (see e.g., FIG.1), which shows its user devices coupled to the order processing server (i.e., trading server) without an intermediary. EX1003, ¶98; EX1005, [0022].

c) [1.b]: “wherein the trading server is configured to couple to at least one currency exchange server and at least one market exchange server,”

Both Calo and Rude disclose and/or render obvious this limitation. EX1003, ¶¶99-103. Calo identifies its GBS as corresponding to the claimed trading server, which is designed to couple with a Foreign Exchange Facility (327). EX1004, [0027], [0061], FIG.3A. This facility “provides indicative foreign exchange rates” and carries out currency conversions. *Id.* Because Calo’s Foreign Exchange Facility (327) supplies the exchange rates necessary to complete transactions, it discloses

and/or renders obvious the claimed “currency exchange server,” consistent with the description of the ’701 Patent. EX1001, 3:5-8; EX1003, ¶¶100-101.

Calo further describes U.S. Market Makers and Exchanges (329) as interfacing with international market exchanges such as “the Hong Kong Exchange [and] the London Stock Exchange.” EX1004, [0025]. This disclosure likewise discloses and/or renders obvious the claimed “market exchange server.” For example, when a customer submits an order to purchase U.S. securities (e.g., stocks), the order is routed through the GBS to a U.S. executing affiliate (328), which then places the order on a U.S. exchange (e.g., the NYSE). EX1001, 5:4-6; EX1003, ¶102; EX1004, [0029]-[0030], FIG.3B (305); EX1016, 27-29. Accordingly, Calo’s GBS is configured to couple with both a currency exchange server (e.g., Foreign Exchange Facility (327)) and a market exchange server (e.g., NYSE). EX1003, ¶103.⁷

A POSITA would have recognized that Calo’s Foreign Exchange Facility is electronically coupled to the trading server via a network, since Calo explains that orders are “transmitted electronically.” EX1003, ¶105; EX1004, [0008], [0051],

⁷ It would have additionally been obvious to implement Calo’s currency and market exchanges as servers for the same reasons discussed *supra* for the trading server in limitation 1[a]. EX1003, ¶¶104, 110; EX1004, [0028], [0052]; EX1016, 6-9.

Cross-Border Trading Order and Execution Flow
(Australian customer Buying a US security)

1) ET C2 Customer enters order to buy 100 IBM @ Market

2) a) Order preview estimate
B 100 IBM @ USD 100 and
1 \$300 AUD/USD (exchange rate)
b) Netting against buying power
c) Reserve transaction AUD
22,300 (plus brokerage fees and
% for price volatility)

3) ET C2 Australia: B 100 IBM @ USD 100
or AUD 22,322.50

4) ET Global Order B 100 IBM @ Mkt

5) ET Global Buy USD 15000 @
1.9415 AUD/USD
AUD/USD Spread
1.9400-1.9415

6) ET Global Order to Buy USD
18000 for AUD

7) ET Global B 100 IBM @ USD
100

8) ET B B 100 IBM
@ USD 100

9) ET Global United
Foreign Exchange Facility

10) ET Global FX Liquidity Bank

11) Execution Notice
B 100 IBM @ USD
100 or AUD
22,322.50 less
brokerage fees

12) ET Global Settlement Bank

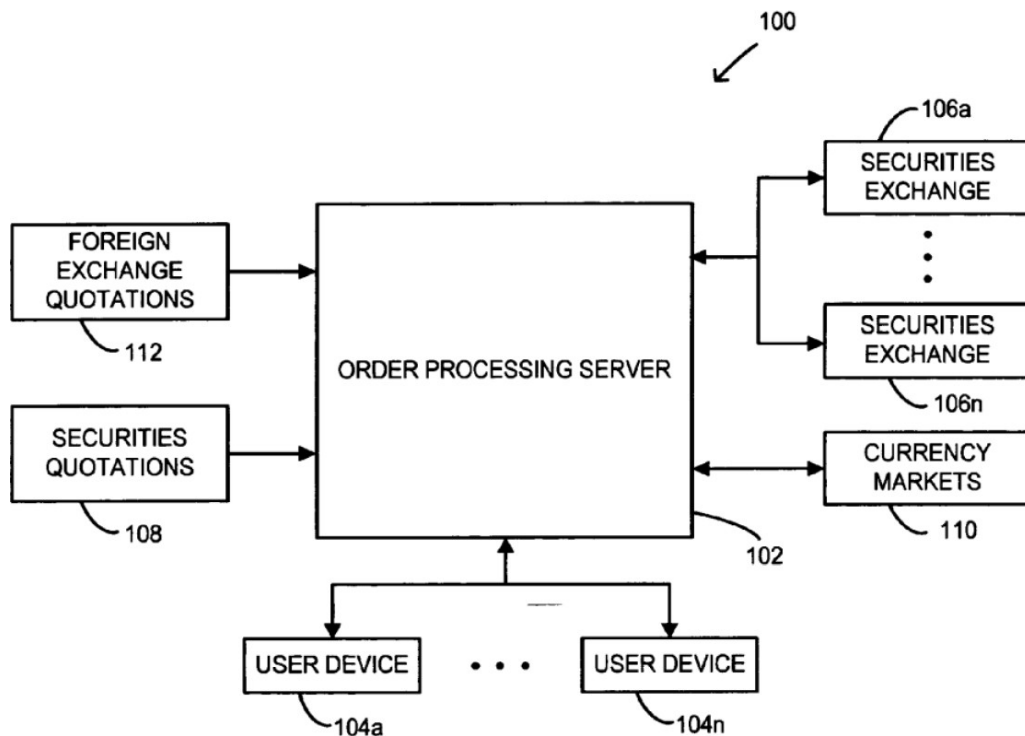
13) ET Global Securities

14) ET Global US Market Makers and
Exchanges

15) ET Global US Settlement Bank

16) ET Global Australian Settlement Bank

If the Patent Owner contends that limitation 1[b] excludes the use of intermediaries between the trading server and currency or market exchange servers, it nevertheless would have been obvious to implement Calo's GBS without such intermediaries for the reasons already discussed with respect to limitation 1[a]. *Supra*, §VII.A.2.b; EX1003, ¶107. Moreover, Rude confirms this point: its order processing server (102) (trading server) is coupled to currency market (110) (currency exchange server) and securities exchanges (106) (market exchange server) without intermediaries.



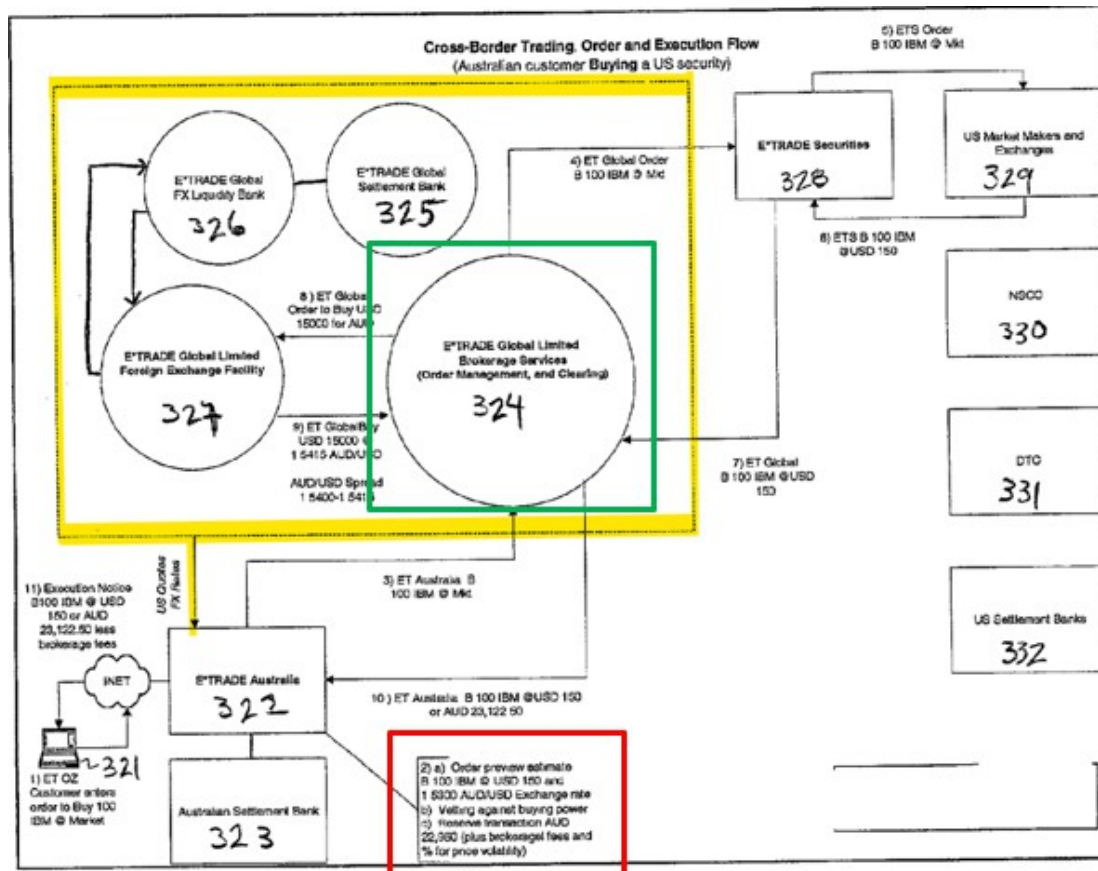
EX1003, ¶¶108-109; EX1005, [0020]-[0021], FIG.1.

- d) [1.c]: “the trading server is further configured to calculate costs and fees in the first currency to own or sell the asset being traded in a second currency,”

Both Calo and Rude disclose and/or render obvious this limitation. EX1003, ¶¶111-116. Calo explains that, prior to executing a trade “such as to buy or sell a security”, the customer is provided with “a preview price on a real-time basis for a U.S. equity (such as an individual stock or mutual fund share),” for example in USD. EX1003, ¶112; EX1004, [0008], [0030]. In addition, Calo supplies “[a] price in the native currency,” such as Australian Dollars. EX1004, [0030]. After the customer reviews these cost estimates and submits an order—but before execution—Calo’s system generates an order preview. *Id.*; EX1003, ¶113. This preview reflects “the current U.S. ask price, the Australian dollar (AUD) equivalent based on the current ask price for USD based on the US principal amount, [and] the estimated commissions and fees for a cross-border trade.” EX1004, [0030], FIG.3A.

Calo further discloses that costs and fees are calculated and displayed before an order is placed by presenting the customer with “a preview of the order” that includes the USD principal amount (based on the current US bid price), the AUD equivalent, and “estimated commissions and fees.” *Id.*, [0038]. As depicted in Figure 3A, Calo’s “estimated prices are computed automatically through, by, or with information obtained through” the GBS.” *Id.*, [0030], FIG.3A; EX1003, ¶114. For

example, Figure 3A shows an order preview based off U.S. Quotes and FX Rates derived at least in part from the GBS.



From this disclosure, a POSITA would have understood that Calo's GBS (the trading server) performs the calculations necessary to present the relevant costs and fees in the user's native currency (the claimed first currency) for a trade involving an asset denominated in a second currency (e.g., USD). EX1003, ¶¶114-115. A POSITA would have also understood that this includes not only foreign exchange conversions but also commissions and fees expressed in the native currency. *Id.*; EX1004, [0030], [0038].

Rude likewise teaches this limitation. Its “order processing server” (trading server) “determines a net settlement amount for the transaction, which may reflect settlement fees, commissions, etc. as well as the amount payable for or realized from the transaction.” EX1003, ¶116; EX1005, [0053]. Rude further discloses that this net settlement is displayed “in the user’s operating currency (instead of the local currency in which the security trades).” EX1005, [0056].

- e) **[1.d]: “the costs and fees are caused to be displayed on a display device of the client machine and are dynamically changed in accordance with a first prevailing exchange rate between the first currency and the second currency, and even when a market value of the asset remains unchanged,”**

Calo discloses and/or renders obvious this limitation. EX1003, ¶¶117-123. Calo explains that a “customer advantageously accesses the system through an electronic connection, such as with a computer.” EX1004, [0027]. The customer’s computer, depicted in Figure 3A includes a “display device” (e.g., monitor). EX1003, ¶¶118-119. Figure 3B further illustrates Calo’s cross-border securities trading process. EX1004, [0029].

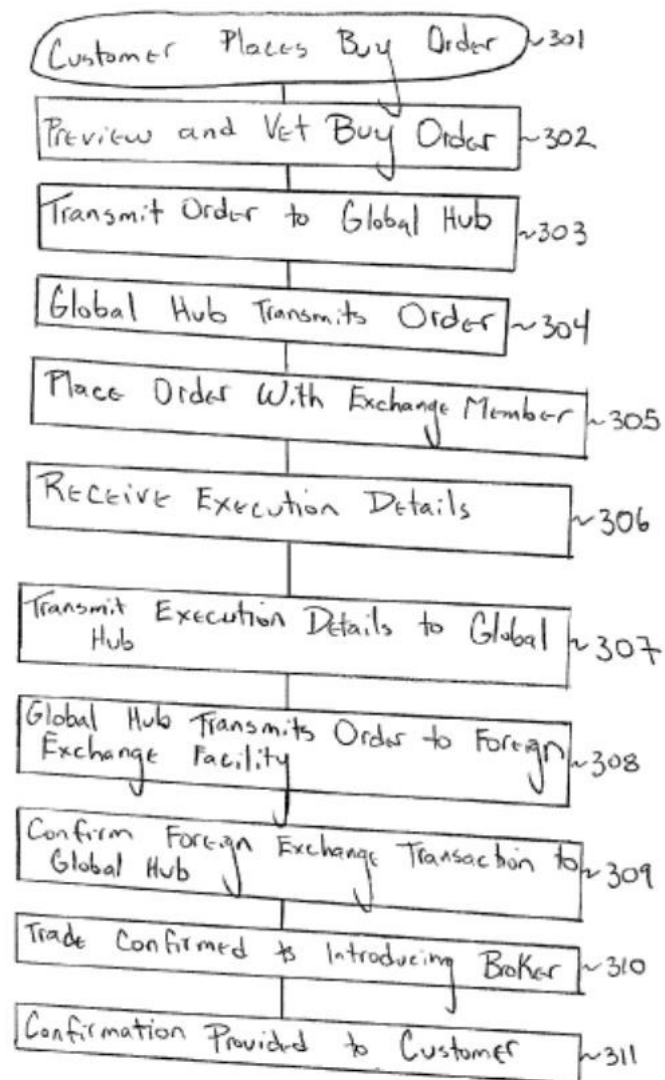


FIGURE 3B

Before submitting an order at step 301, the customer is presented with “a preview price on a real-time basis” for buying or selling a U.S. equity, displayed in USD. EX1004, [0030]. Calo also provides, “[a] price in the native currency” which is derived from both the real-time U.S. equity quote and a real-time conversion using foreign exchange rates. *Id.* Calo’s Foreign Exchange Facility supplies “round-the-

clock access to real-time currency exchange rates” and distributes those rates, “to the end user to preview a securities trade.” *Id.*, [0061]. As discussed in connection with limitation 1[c], Calo also discloses presenting estimated commissions and fees before an order is placed. *Id.*, [0038]. A POSITA would have understood that these preview prices and fees are displayed on the customer’s computer display device. EX1003, ¶¶120-121.

Because Calo’s preview prices and fees are generated on a “real-time basis” and rely on a current exchange rate from the Foreign Exchange Facility, a POSITA would have recognized that the preview prices and fees dynamically adjust including up to and at the time of the transaction in accordance with the prevailing exchange rate between the first currency and second currency. EX1003, ¶121; EX1004, [0030]; *see also* EX1015, 476, 479-86, 496; EX1018, 6; EX1019. Moreover, since the preview prices also incorporate a real-time quote for the U.S. equity, a POSITA would have understood that the displayed costs and fees fluctuate including up to and at the time of the transaction even if the underlying asset’s price remains constant, due to changes in the exchange rate. EX1003, ¶121; EX1004, [0030].

To the extent the Patent Owner contends that limitation 1[d] requires costs and fees to be displayed separately, Calo nonetheless discloses this feature. EX1003, ¶122; EX1004, [0030], [0038]. Its disclosure of previewing prices in both local and native currencies, as well as previewing orders, demonstrates that Calo contemplates

itemizing costs and fees for the trader's benefit. EX1003, ¶122; EX1004, [0030], [0038]. Even if the prices were presented as a total cost, a POSITA would have understood that both costs and fees are included in the preview prices shown to the user before order placement. EX1003, ¶122; EX1004, [0030], [0038].

It would have also been obvious to a POSITA to itemize the costs and fees in Calo's preview price. EX1003, ¶123. Calo already distinguishes between the asset cost and affiliate fees, providing the data necessary for itemization. A POSITA would have found it obvious to present fees alongside the preview price in the native currency and to update both dynamically as exchange rates or asset prices change. EX1004, [0030]. Calo already calculates "the estimated commissions and fees for a cross-border trade" to generate the order preview, which it teaches may be provided either before or after order placement. EX1004, [0030], [0035], FIG.3B. A POSITA would have been motivated, and found it obvious, to display estimated commissions and fees with the preview price in the native currency provided to the customer before a buy order is placed, recognizing that this information influences investor decisions and fluctuates in real time. EX1003, ¶123; EX1004, [0006]-[0061]. Doing so would have advanced Calo's stated objective of providing a "real-time system" that enhances transparency and reduces "risks from price movement for both the customer and the party executing the trade." EX1004, [0028]. Implementing such a display would have required only routine interface programming, and a POSITA

would have had a reasonable expectation of success given that Calo already discloses calculating commissions and fees and presenting this information prior to order placement. *Id.*, [0030], [0038]; EX1003, ¶123.

- f) **[1.e]: “and wherein the trading server is configured to conduct a transaction of the asset by transporting a transaction request to the market exchange server upon receiving an order from the trader,”**

Calo discloses and/or renders obvious this limitation. EX1003, ¶¶124-126. As shown in Figure 3B, once an order is received (step 301), Calo’s GBS “transmits the order to E*TRADE Securities (ETS), the U.S. local affiliate” (step 304). EX1004, [0030]. “At step 305, ETS places an order with an exchange member such as a U.S. market maker in a U.S. exchange, who then executes the trade” on the appropriate U.S. stock (e.g., NYSE). *Id.*, [0030]. Figure 3A further illustrates this routing: the transaction flows from Calo’s GBS (324) to ETS (328), then to the appropriate market exchange for trade execution (329) and finally returns to GBS (324) after execution. EX1003, ¶125; EX1004, FIG.3A.

From these disclosures, a POSITA would have understood that when a trader submits an order, GBS is responsible for carrying out the transaction by transmitting the order to the appropriate market exchange server (e.g., NYSE) for execution. EX1003, ¶126. ETS functions merely as a pass-through entity and does not alter or

interfere with GBS's role in transporting the order or in conducting the transaction itself. *Id.*

- g) **[1.f]: “and reach a settlement based on a second prevailing exchange rate as soon as the transaction of the asset is performed in accordance with conditions set by the trader,”**

Calo discloses and/or renders obvious this limitation. EX1003, ¶¶127-130. As described in connection with limitation 1[e], once an order is submitted (step 301), it is routed and executed on the appropriate market exchange. EX1004, FIG.3B (steps 303–306); *see also supra*, §VII.A.2.f; EX1003, ¶128. Calo further explains that “[p]referably immediately after the equity order is executed and reported,” the GBS initiates a foreign exchange transaction to convert Australian dollars into U.S. dollars (step 307). Following this conversion, the system provides the customer with a trade confirmation that includes both the execution price in USD and the “locked-in AUD value” of the trade (step 310).” EX1004, [0030].

A POSITA would have understood that the “locked-in AUD value” represents the amount of Australian dollars required to settle the trade, determined using the current exchange rate at the time of the foreign exchange transaction. EX1003, ¶129; EX1004, [0030]. This locked-in value is the result of applying a prevailing exchange rate at settlement, which a POSITA would have understood differs from the real-time rate used earlier to generate the preview price in the native currency prior to

placing the order, since exchange rates may fluctuate between preview and execution. *Id.* Accordingly, the prevailing rate applied to calculate the final locked-in AUD value corresponds to the claimed “second prevailing exchange rate.” *Id.* And because the foreign exchange transaction occurs “immediately after the equity order is executed,” Calo discloses and/or renders obvious reaching a settlement “as soon as the transaction of the asset is performed” as required by the claim. *Id.*

Calo also discloses and/or renders obvious, executing the transaction subject to trader-defined conditions. Customers may place orders specifying conditions such as a particular number of shares of a given stock (e.g., “100 shares of IBM stock at the market price”) or submit limit orders, which “guarantee[] that an equity will be bought or sold only at a specific price.” EX1004, [0030], [0070]. This is consistent with the ’701 Patent’s teaching that “orders with conditions (e.g., a limit order) are only executed when the conditions are met.” EX1001, 4:45-49. A POSITA would have recognized that when a customer places an order in one currency for an asset priced in another, execution of a limit order accounts for both the equity price and the prevailing exchange rate, since the effective cost in the customer’s local currency depends on both factors. EX1003, ¶130; EX1015, 470; EX1016, 45-46. For instance, Calo teaches one “means to reduce risk from limit orders is marking-to-the-market all open limit orders on a regular basis,” a well-known practice of valuing assets or liabilities based on their current market value or exchange rates. EX1004, [0070].

- h) [1.g]: “and wherein the second prevailing exchange rate is calculated from the at least one currency exchange server right before the transaction takes place,”**

The combination of Calo, Rude, and Sellberg discloses and/or renders obvious this limitation. EX1003, ¶¶131-134. As explained with respect to limitation 1[f], this combination teaches a “locked-in AUD value” that a POSITA would have recognized as the product of applying a second prevailing exchange rate determined immediately before execution of the transaction. *Supra*, §VII.A.2.g; EX1003, ¶¶128-130; EX1004, [0030].

The '701 Patent does not describe any mechanism for calculating the second prevailing rate from the at least one currency exchange server. EX1003, ¶¶132-133. Instead, it explains that the rate is obtained from server data, i.e., “receiving a prevailing currency exchange rate from the currency exchange server.” EX1001, 3:30–34. Calo operates in the same manner, sourcing its exchange rates from the Foreign Exchange Facility, which functions as the currency exchange server. EX1004, [0061]. Thus, Calo discloses that the second prevailing exchange rate is determined from the currency exchange server in the same way contemplated by the '701 Patent. EX1003, ¶¶132-133.

Alternatively, it would have been obvious to a POSITA, in light of Sellberg, to configure Calo's system to calculate the exchange rate immediately before the

transaction takes place in order to ensure accuracy and reduce exposure to currency fluctuations. EX1003, ¶134. Calo emphasizes real-time pricing and specifies that the AUD value is locked in “[p]referably immediately after the equity order is executed.” EX1004, [0030]. Sellberg, in turn, describes an automated system that continuously receives exchange rate updates from a currency market—sometimes multiple times per second—and applies the “last received updated exchange rate” at the time of trade execution. EX1006, [0024], [0025], [0027]. A POSITA would have understood that Sellberg’s approach, sourcing rates from the currency market, ensures that the rate is calculated right before the transaction of the asset took place. EX1003, ¶134. A POSITA would have been motivated to combine Sellberg’s teachings with Calo to guarantee that settlement reflects the most current exchange rate. *Supra*, §VII.A.1; EX1003, ¶¶78-83, 134.

- i) **[1.h]: “executed costs and fees in the settlement per the second prevailing exchange rate are not identical to the displayed costs and fees with the first prevailing exchange before the transaction of the asset took place.”**

The combination of Calo, Rude, and Sellberg also discloses and/or renders obvious this limitation. EX1003, ¶¶135-137. As explained in connection with limitations 1[d] and 1[f], this combination teaches displaying costs and fees in the user’s native currency before an order is placed, with those values calculated using a real-time exchange rate (i.e., first prevailing exchange rate). *Supra*, §VII.A.2.e,

VII.A.2.g; EX1003, ¶135; EX1004, [0030]. The combination also describes a “locked-in AUD value” which a POSITA would have recognized as the product of applying a second prevailing exchange rate determined immediately before the transaction takes place. EX1003, ¶136. In addition, Calo discloses reviewing “the estimated commissions and fees for a cross-border trade” and maintaining a reserve to “allow for fluctuations in both the US equity and USD/AUD currency market” before executing a transaction. EX1004, [0030].

A POSITA would have understood that the exchange rate used to generate the preview price in the native currency (i.e. the first prevailing exchange rate) and the locked-in rate applied at settlement (i.e., the second prevailing exchange rate) would not be identical, given normal fluctuations in currency markets. Likewise, the ultimate cost of the asset could differ from the previewed cost due to changes in equity prices. EX1003, ¶137; EX1004, [0030], [0070]. Consequently, the executed costs and fees at settlement in Calo would not necessarily match the estimates provided before the order was placed. EX1004, [0030], [0028]. This distinction is reinforced by Calo’s real-time system design and reserve mechanism, which are specifically intended to address differences caused by exchange rate movements. EX1003, ¶137.

3. Claim 3: “The platform as recited in claim 1, wherein the first prevailing exchange rate and the second prevailing exchange rate are different.”

The combination of Calo, Rude, and Sellberg discloses and/or renders obvious this limitation. This combination teaches both a preview price—calculated using a first prevailing exchange rate prior to order placement—and a “locked-in AUD value,” which is determined using a second prevailing exchange rate applied at execution. *Supra*, §§VII.A.2.e, VII.A.2.g. A POSITA would have recognized that these two rates will differ since the first relies on an earlier real-time rate while the second reflects the rate in effect at the time of execution. Such differences naturally arise from ordinary volatility in currency markets. EX1003, ¶¶138-139; EX1004, [0030].

4. Claim 4: “The platform as recited in claim 3, wherein the first prevailing exchange rate and the second prevailing exchange rate are automatically calculated in different times by the trading server from a network including the at least one currency exchange server.”

Calo discloses and/or renders obvious this limitation. EX1003, ¶¶140-141. The exchange rate used to generate Calo’s preview price in the native currency is determined before the order is placed, whereas the rate used to calculate the “locked-in AUD value” is determined at settlement. EX1003, ¶141; EX1004, [0030]; *supra*, §§VII.A.2.e, VII.A.2.g. In Calo, the GBS automatically computes prices using “real-time conversion from the foreign exchange rates” supplied by the Foreign Exchange

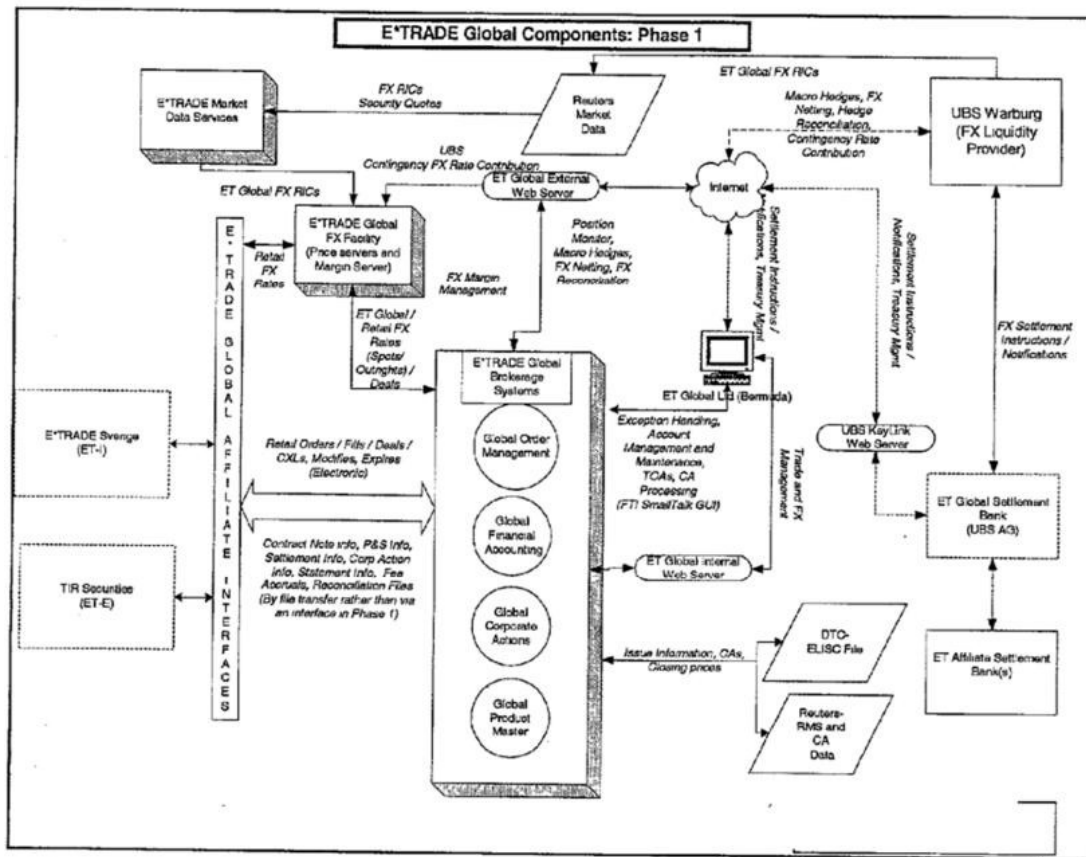
Facility (the currency exchange server) across Calo's "global network." EX1004, [0030], [0027], [0061].

Sellberg further reinforces this teaching by disclosing that updated exchange rates are received repeatedly and automatically, in some cases "several times a second." EX1003, ¶142; EX1006, [0024]. A POSITA would have understood that Sellberg's disclosure further teaches the limitation, since it demonstrates that updated exchange rates are automatically and continuously obtained and applied in real-time.

5. Claim 6

- a) **6[a]: "The platform as recited in claim 1, wherein the trading server is caused to be coupled to the client machine, and configured to couple to the at least one currency exchange server and the at least one market exchange server via a network,"**

Calo, when considered in view of Rude, discloses and/or renders obvious this limitation. *Supra*, §§VII.A.2.b, VII.A.2.c; EX1003, ¶¶143-144; EX1004, [0027], [0030], [0061]. Calo explains that its "system of computers" is implemented and operates on a network, exemplified by the "exemplary computer network" shown in Figure 10.



EX1003, ¶145; EX1004, FIG.10, [0021], [0028]; *see also* EX1004, FIG.2, [0003], [0013].

b) 6[b]: “the trading server is configured to further: calculate automatically the second prevailing exchange rate from the network to ensure that the transaction only happens when the conditions are met with the second prevailing exchange rate.”

Calo discloses and/or renders obvious this limitation. *Supra*, §VII.A.4; EX1003, ¶¶146-147. Calo further teaches executing transactions subject to trader-defined conditions, such as limit orders. *Supra*, §VII.A.2.g; EX1003, ¶¶147-148. A limit order “guarantees that an equity will be bought or sold only at a specific price,”

which requires the trading server to evaluate whether the prevailing market price satisfies the trader's conditions before execution of the transaction. EX1003, ¶148; EX1004, [0070].

Because Calo's GBS operates using real-time, automatically computed pricing that incorporates current exchange rate data, and because execution depends on whether the specified conditions are met (e.g., a limit order), a POSITA would have understood that the trading server must automatically calculate the second prevailing exchange rate from the network. This ensures that execution occurs only when the trader's conditions are satisfied using the second prevailing exchange rate. EX1003, ¶149. Sellberg reinforces this understanding by disclosing that updated exchange rates are received "repeatedly and automatically," in some cases "up to several times a second." EX1006, [0024].

6. Claim 7: "The platform as recited in claim 1, wherein the client machine is a desktop, a laptop, a server computer, a handheld wireless device, or a mobile phone."

Calo discloses and/or renders this obvious this limitation. Specifically, Calo explains that a customer "accesses the system" using "a computer." EX1003, ¶¶150-151; EX1004, [0027]-[0028], FIG.3A.

7. Independent Claim 8

a) Preamble: "A platform for trading an asset, the platform comprising:"

See *supra*, §VII.A.2.a; EX1003, ¶152.

- b) **8[a]: “a client machine associated with a user, coupled to a trading server via the Internet, executing a software product to send an indicator of a first currency to the trading server,”**

Calo, in view of Rude, discloses and/or renders obvious this limitation. *Supra*, §VII.A.2.b; EX1003, ¶¶153-154.

In Calo, the client machine couples to the trading server via the Internet. Figure 3A illustrates this arrangement, showing the client machine linked to GBS (324) through the internet (i.e., “INET”). EX1004, FIG.3A. Calo further explains that customers may place orders “over the internet.” EX1004, [0030]. Rude likewise confirms that its devices communicate via “the internet.” EX1003, ¶¶155-156; EX1005, ¶0028.

The combination also teaches executing a software product to transmit an indicator of a first currency to the trading server. EX1003, ¶157. Rude discloses executing a software product to send such an indicator. EX1005, [0026], [0037], [0043]. Calo similarly notes that all E*TRADE Global entities can be “linked by common software,” reinforcing that the system relies on software execution to communicate currency information to the trading server. EX1004, [0051].

- c) **8[b]: “wherein the trading server is configured to couple to at least one currency exchange server and at least one market exchange server and”**

See supra, §VII.A.2.c; EX1003, ¶158.

- d) **8[c]: “configured to calculate costs and fees in the first currency to own or sell the asset being traded in second currency,”**

See supra, §VII.A.2.d; EX1003, ¶159.

- e) **8[d]: “the client machine is caused to display the costs and fees on a display device thereof, the costs and fees being displayed are dynamically changed in accordance with a first prevailing exchange rate between the first currency and the second currency, and even when the market value of the asset remains unchanged, and,”**

See supra, §VII.A.2.e; EX1003, ¶160.

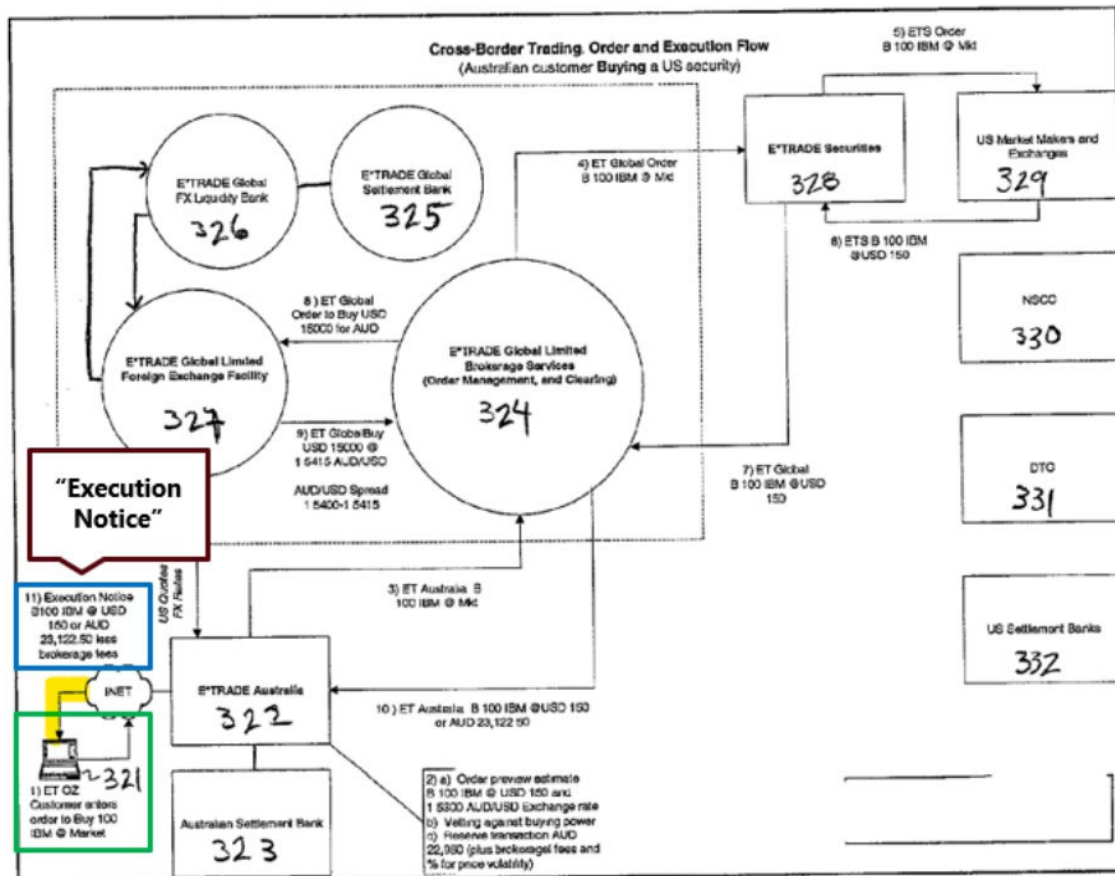
- f) **8[e]: “wherein a transaction of the asset is conducted in the trading server in response to the market exchange server upon receiving an order from the client machine,”**

See supra, §VII.A.2.f; EX1003, ¶161.

- g) **8[f]: “the client machine receives a settlement based on a second prevailing exchange rate, wherein the second prevailing exchange rate is calculated by the trading server from the at least one currency exchange server right before the transaction takes place,”**

The combination of Calo, Rude, and Sellberg discloses and/or renders obvious this limitation. *Supra*, §VII.A.2.g, VII.A.2.h; EX1003, ¶¶162-163. Calo further teaches that the client machine receives a settlement calculated using the second prevailing exchange rate. EX1004, [0030]. Specifically, once a trade is executed, the system applies the prevailing rate to determine the final “locked-in AUD value” and then provides a customer with a “confirmation [] of the purchase[]” that includes

EX1003, ¶164.



- h) 8[g]: “executed costs and fees in the settlement per the second prevailing exchange rate are not identical to the displayed costs and fees with the first prevailing exchange before the transaction of the asset took place.”**

See supra, §VII.A.2.h; EX1003, ¶165.

- 8. Claim 9: “The platform as recited in claim 8, wherein the client machine is caused to keep displaying the costs and fees being dynamically updated in accordance with the first**

prevailing exchange rate updated constantly, even when the market value of the asset remains unchanged.”

The combination of Calo, Rude, and Sellberg discloses and/or renders obvious the platform recited in claim 8. *Supra*, §VII.A.7; EX1003, ¶¶166-170. Calo also discloses and/or renders obvious the costs and fees being dynamically updated in accordance with the first prevailing exchange rate, even when the market value of the asset remains unchanged. *Supra*, §VII.A.2.e, VII.A.7.e; EX1003, ¶167. Calo’s Foreign Exchange Facility provides “round-the-clock access to real-time currency exchange rates which can be distributed . . . to the end user.” EX1004, [0061]. A POSITA would have understood this to mean that the prevailing exchange rate is continuously updated and displayed. EX1003, ¶168.

Calo further discloses and/or renders obvious that the client machine is caused to keep displaying the costs and fees. *Supra*, §VII.A.2.e. Before execution of a trade (prior to step 301), the customer receives “a preview price on a real-time basis for a U.S. equity,” reflecting “both the real-time quote for price on the U.S. equity” and “a real-time conversion from the foreign exchange rates.” EX1004, [0030]. Calo also states that “the estimated prices are computed automatically.” *Id.* A POSITA would have understood this to mean that the client machine continuously displays dynamically updated costs and fees, since the previewed prices are “computed

automatically” based on “real-time” data. *Id.*; EX1003, ¶169; *see also* EX1015, 476, 479-86, 496; EX1018, 6; EX1019.

Moreover, Sellberg reinforces this understanding by teaching that “the trader may continuously follow the updated exchange rates.” EX1003, ¶170; EX1006, [0031]. It therefore would have been obvious to a POSITA to configure Calo’s client machine to keep displaying dynamically updated costs and fees in the manner claimed.

9. **Claim 11: “The platform as recited in claim 8, wherein the first prevailing exchange rate and the second prevailing exchange rate are different.”**

See supra, §VII.A.3; EX1003, ¶171.

10. **Claim 12: “The platform as recited in claim 11, wherein the first prevailing exchange rate and the second prevailing exchange rate are automatically calculated in the trading server in different times by the trading server from a network including the at least one currency exchange server.”**

See supra, §VII.A.4; EX1003, ¶172.

11. **Claim 14**

- a) **14[a]: “The platform as recited in claim 8, wherein the client machine is coupled to the trading server, the at least one currency exchange server and the at least one market exchange server via a network, and causes the trading server to:”**

See supra, §VII.A.5.a; EX1003, ¶173.

- b) **14[b]: “calculate automatically the second prevailing exchange rate from the network to ensure that the transaction only happens when the conditions are met with the second prevailing exchange rate.”**

See supra, §VII.A.5.b; EX1003, ¶174.

- 12. Claim 15: “The platform as recited in claim 8, wherein the client machine is a desktop, a laptop, a server computer, a handheld wireless device, or a mobile phone.”**

See supra, §VII.A.6; EX1003, ¶175.

- 13. Claim 16: “The platform as recited in claim 4, wherein the costs and fees displayed on the display device of the client machine are dynamically updated in time per the first prevailing exchange rate or the second prevailing exchange rate.”**

The combination of Calo, Rude, and Sellberg discloses and/or renders obvious this limitation. *Supra*, §§VII.A.2.e, VII.A.8.e; EX1003, ¶¶176-177. Calo teaches that preview prices in the native currency are derived from “real-time conversion from the foreign exchange rates.” EX1004, [0030]. Sellberg reinforces this by disclosing that exchange rate updates are received “repeatedly and automatically” from a currency market, enabling a trader to “continuously follow the updated exchange rates.” EX1006, [0024], [0025], [0031].

A POSITA would have understood that costs and fees fluctuate with changes in exchange rates. EX1003, ¶177; EX1004, [0069]. Accordingly, the preview prices and fees provided “on a real-time basis” before order placement are dynamically

updated in time per the first prevailing exchange rate, and at settlement per the second prevailing exchange rate. *Supra*, §VII.A.1; EX1003, ¶177; EX1004, [0028].

B. Ground 2: Claims 1, 3-4, 6-9, 11-12, and 14-16 Would Have Been Obvious Over Calo and Rude, in view of Szoc

1. Motivation to Combine Szoc

As set forth above, a POSITA would have been motivated to combine Calo and Rude with a reasonable expectation of success. *Supra*, §VII.A.1. A POSITA would likewise have been motivated to combine Szoc with Calo, as modified by Rude. EX1003, ¶¶178-179.

Szoc is analogous art to Calo and Rude, and is in the same field of endeavor as the '701 Patent. *Supra*, §VII.A.1; EX1003, ¶179. Szoc discloses a system for “conducting transactions over a network” that provides “real-time foreign exchange rate quotes [and] cross-border payments.” EX1007, [0005]. Szoc addresses the same problems as the '701 Patent purportedly attempted to solve. *Supra*, §VII.A.1. A POSITA would have been motivated to combine Szoc’s teachings with Calo and Rude because Szoc similarly seeks to mitigate the “volatile nature of exchange rates” by providing “real-time foreign exchange rate quotes that may be relied upon by consumers for a predetermined period of time.” EX1003, ¶¶180-181; EX1004, [0030]; EX1007, [0009], [0018], [0101].

Szoc also discloses a “scrolling quote bar” that displays “real-time, constantly-changing rates,” for various currencies relative to the client’s native currency. EX1007, [0083]. A POSITA would have been motivated to combine this feature described in Szoc with Calo to provide traders the most accurate information at the time of trade, increase transparency in volatile markets, and ensure limit orders executed only when trader-specified conditions are met. EX1003, ¶¶182-183; EX1017, 25.

The predictable result of combining Szoc’s teachings with Calo’s system is that the exchange rate is determined immediately before execution, ensuring limit orders are carried out only when conditions are satisfied. EX1003, ¶184; EX1007, [0018], [0049], [0101]. A POSITA also would have been motivated to combine these teachings to minimize exposure to rate fluctuations, reduce the need for reserve buffers, and improve accuracy and user control in cross-currency trading. EX1003, ¶184; EX1007, [0009], [0018], [0049]. This modification aligns with the shared goal of optimizing automated foreign currency conversion in cross-border transactions. EX1003, ¶184.

A POSITA would have expected success in combining Szoc with Calo—as modified by Rude—given their compatible architectures, aligned objectives, and the fact that Szoc’s techniques were already being applied in similar systems. EX1003, ¶¶181, 185. Each system operates within a computerized foreign transaction

framework and is implemented on appropriate hardware and software. EX1004, [0027], [0051]; EX1005, [0030], [0037]; EX1007, [0034]. Szoc's quote bar, which provides real-time exchange rates to support conditional foreign currency transactions, is structurally and functionally compatible with Calo's real-time foreign exchange conversions for preview pricing. EX1004, [0030]; EX1007, [0036]. A POSITA would have expected success integrating Szoc's quote bar with Calo because Calo already disclosed foreign exchange-based pricing and limit order functionality. EX1003, ¶185; EX1004, [0070]. Both Calo and Szoc aim to streamline cross-border financial transactions by automating currency exchange data, confirming their suitability for integration. EX1003, ¶185.

2. Independent Claim 1

- a) Preamble: “A platform for trading an asset, the platform comprising:”**

See supra, §§VII.A.2.a, VII.B.2.h; EX1003, ¶186.

- b) 1[a]: “a trading server, coupled to a client machine associated with a user, receiving an indicator of a first currency from the client machine,”**

See supra, §VII.A.2.b; EX1003, ¶187.

- c) 1[b]: “wherein the trading server is configured to couple to at least one currency exchange server and at least one market exchange server,”**

See supra, §VII.A.2.c; EX1003, ¶188.

- d) 1[c]: “the trading server is further configured to calculate costs and fees in the first currency to own or sell the asset being traded in a second currency,”

See supra, §VII.A.2.d; EX1003, ¶189.

- e) 1[d]: “the costs and fees are caused to be displayed on a display device of the client machine and are dynamically changed in accordance with a first prevailing exchange rate between the first currency and the second currency, and even when a market value of the asset remains unchanged.”

See supra, §VII.A.2.e; EX1003, ¶190.

- f) 1[e]: “and wherein the trading server is configured to conduct a transaction of the asset by transporting a transaction request to the market exchange server upon receiving an order from the trader.”

See supra, §VII.A.2.f; EX1003, ¶191.

- g) 1[f]: “and reach a settlement based on a second prevailing exchange rate as soon as the transaction of the asset is performed in accordance with the conditions set by the trader,”

Calo discloses and/or renders obvious this limitation. *Supra*, §VII.A.2.g; EX1003, ¶¶128-130, 192-193. Szoc provides additional implementation details for fulfilling limit orders. EX1003, ¶194. Specifically, Szoc teaches that for “transactions that will execute only when and if a specific foreign exchange rate is available,” the client enters a “desired exchange rate,” and execution occurs only if that rate is achieved. EX1007, [0101].

It would have been obvious to a POSITA to combine Szoc's teachings on limit transactions with Calo (as modified by Rude) so that execution of the asset transaction—and corresponding settlement—occurs immediately once the trader's conditions are satisfied. EX1003, ¶194; EX1007, [0018], [0049], [0101]. This combination ensures that limit orders are executed only when the trader's specified conditions are met, consistent with this limitation. EX1003, ¶194; *supra*, §VII.B.1.

h) 1[g]: “and wherein the second prevailing exchange rate is calculated from the at least one currency exchange server right before the transaction takes place,”

Calo discloses and/or renders obvious that the second prevailing exchange rate is calculated from the at least one currency exchange server as discussed above. *Supra*, §VII.A.2.h; EX1003, ¶¶195-196. It would have been obvious to calculate the second prevailing exchange rate “right before the transaction takes place” based on Szoc. EX1003, ¶197. Like Calo, Szoc discloses displaying “real-time, constantly-changing rates[.]” EX1007, [0083], FIG.4A-4B. Szoc further teaches that for “transactions that will execute only when and if a specific foreign exchange rate is available,” the client enters a “desired exchange rate,” and execution occurs only if that rate is achieved. EX1007, [0101], [0016], [0081]. To implement this, the system evaluates the exchange rate immediately before the transaction takes place. *Id.*; EX1003, ¶197. Szoc also discloses that if the specified rate is not met, the transaction may expire after a designated time period. *Id.*

A POSITA would have been motivated to adopt Szoc’s approach for limit orders in Calo (as modified by Rude) to ensure that the execution rate used for settlement is determined right before the transaction, based on a predefined value. *Supra*, §VII.B.1; EX1003, ¶198. This combination predictably ensures accurate settlement and aligns with the claimed limitation.

- i) **1[h]: “executed costs and fees in the settlement per the second prevailing exchange rate are not identical tot eh displayed costs and fees with the first prevailing exchange before the transaction of the asset took place.”**

See supra, §VII.A.2.h; EX1003, ¶199.

3. Claims 3, 4, 6, and 7

Calo, Rude and Szoc disclose the limitations of these claims for the same reasons set forth in Ground 1. *See supra*, §§VII.A.3-6; EX1003, ¶200.

4. Independent Claim 8

- a) **Preamble: “A platform for trading an asset, the platform comprising:”**

See supra, §VII.B.2.a; EX1003, ¶201.

- b) **8[a]: “a client machine associated with a user, coupled to a trading server via the Internet, executing a software product to send an indicator of a first currency to the trading server,”**

See supra, §VII.B.2.b; EX1003, ¶202.

- c) **8[b]: “wherein the trading server is configured to couple to at least one currency exchange server and at least one market exchange server and”**

See supra, §VII.B.2.c; EX1003, ¶203.

- d) **8[c]: “configured to calculate costs and fees in the first currency to own or sell the asset being traded in second currency,”**

See supra, §VII.B.2.d; EX1003, ¶204.

- e) **8[d]: “the client machine is caused to display the costs and fees on a display device thereof, the costs and fees being displayed are dynamically changed in accordance with a first prevailing exchange rate between the first currency and the second currency, and even when the market value of the asset remains unchanged, and,”**

See supra, §VII.B.2.e; EX1003, ¶205.

- f) **8[e]: “wherein a transaction of the asset is conducted in the trading server in response to the market exchange server upon receiving an order from the client machine,”**

See supra, §VII.B.2.f; EX1003, ¶206.

- g) **8[f]: “the client machine receives a settlement based on a second prevailing exchange rate, wherein the second prevailing exchange rate is calculated by the trading server from the at least one currency exchange server right before the transaction takes place,”**

See supra, §VII.B.2.g; EX1003, ¶207.

- h) **8[g]: “executed costs and fees in the settlement per the second prevailing exchange rate are not identical to the displayed costs and fees with the first prevailing**

exchange before the transaction of the asset took place.”

See supra, §VII.B.2.h; EX1003, ¶208.

- 5. Claim 9: “The platform as recited in claim 8, wherein the client machine is caused to keep displaying the costs and fees being dynamically updated in accordance with the first prevailing exchange rate updated constantly, even when the market value of the asset remains unchanged.”**

As discussed, the combination of Calo, Rude, and Szoc discloses the platform recited in claim 8. *Supra*, §VII.B.4; EX1003, ¶209. This combination further discloses and/or renders obvious this limitation. *Supra*, §VII.A.2.g; EX1003, ¶210. To the extent the claim’s recited “keep displaying” language requires more than displaying preview costs and fees “on a real-time basis,” it would have been obvious to maintain such display in view of Szoc. EX1003, ¶211.

Szoc discloses a “scrolling quote bar” that provides “a scrolling list of the foreign exchange rates ... displayed for various currencies with respect to the currently logged-in client’s native currency” and further teaches that the bar “may display real-time, constantly-changing rates.” EX1007, [0083]. A POSITA would have been motivated to apply Szoc’s display functionality to Calo’s costs and fees, since both references emphasize dynamic, real-time updates and the importance of providing traders with current information. *Id.*; EX1004, [0030].

Given Calo’s acknowledgment of volatility in both asset values and exchange rates, a POSITA would have recognized the benefit of incorporating Szoc’s real-time display mechanism to enhance the accuracy and transparency of cost and fee information. EX1003, ¶211. A POSITA would have further understood that costs and fees fluctuate with exchange rate changes, and thus the client machine would keep displaying those costs and fees dynamically updated in accordance with the first prevailing exchange rate—even when the asset’s market value remains unchanged. EX1003, ¶211; EX1004, [0069].

6. Claims 11, 12, 14, and 15

Calo, Rude, and Szoc disclose the limitations of these claims for the same reasons set forth in Ground 1. *See supra*, §§VII.A.9-12; EX1003, ¶212.

7. Claim 16: “The platform as recited in claim 4, wherein the costs and fees displayed on the display device of the client machine are dynamically updated in time per the first prevailing exchange rate or the second prevailing exchange rate.”

As discussed above, the combination of Calo, Rude, and Szoc discloses the platform recited in claim 4. *Supra*, §VII.A.4; EX1003, ¶213. Further, Calo discloses and/or renders obvious this limitation. *Supra*, §VII.A.2.e; EX1003, ¶214. Szoc provides additional implementation details for displaying dynamically updated information. Specifically, Szoc discloses a “scrolling quote bar” that “provides a scrolling list of the foreign exchange rates ... displayed for various currencies with

respect to the currently logged-in client's native currency,” and further teaches that the bar “may display real-time, constantly-changing rates.” EX1007, [0083].

A POSITA would have understood that because costs and fees fluctuate with changes in exchange rates, the same display interface would be advantageous for presenting pricing (e.g., costs and fees) based on a first prevailing exchange rate, and then dynamically updating to reflect a second prevailing exchange rate (a different selected current rate than the first) shortly thereafter. EX1003, ¶215. Such an approach is consistent with Calo’s goal of providing a “real-time system” that increases transparency and reduces “risks from price movement for both the customer and the party executing the trade.” *Id.*; *see also* EX1004, [0028]; EX1015, 479-86, 496; EX1019.

C. Ground 3: Claims 2, 5, 10 and 13 Would Have Been Obvious Over Calo, Rude, and Sellberg, in view of Davidowitz

1. Motivation to Combine Davidowitz

A POSITA would have been motivated to combine Calo, Rude, and Sellberg. *Supra*, §VII.A.1; EX1003, ¶¶216-217. A POSITA would also have been motivated to combine Davidowitz with Calo (as modified by Rude and Sellberg). EX1003, ¶217. Davidowitz is analogous art in the same field of automated financial systems

for cross-border transactions and specifically addresses pairs trading⁸ across international markets with real-time foreign exchange rate hedging and dynamic cost displays. EX1003, ¶¶216-218; EX1008, [0003], [0061]. Davidowitz is directly pertinent to the problems the '701 Patent seeks to address, including cross-border transactions challenges, currency differences, exchange rate volatility, and transparency in pricing. *Supra*, §VII.A.1; EX1003, ¶218. Davidowitz monitors relationships between securities denominated in different currencies and revalues them in real time to a common currency. EX1008, [0003].

A POSITA would have been motivated to combine Davidowitz's real-time cost display functionality with Calo (as modified by Rude and Sellberg). EX1003, ¶219. Calo discloses that preview prices are generated from real-time exchange rates. EX1005, [0030]. Davidowitz discloses an automated system that continuously monitors various markets and automatically executes transactions based on investor parameters, using real-time foreign exchange data to update and revalue asset costs, and display those values to the user. EX1003, ¶219; EX1008, [0036], [0041]. A POSITA would have recognized that combining Davidowitz's granular teachings on

⁸ "Pairs trading is an investment strategy that . . . involves the purchase of one or more securities while simultaneously selling (or selling short) one or more other securities." EX1008, [0005].

displaying updated asset prices with Calo would enhance Calo's preview price feature by providing more transparent and responsive cost updates as exchange rates fluctuate. EX1004, [0069]; EX1003, ¶219; EX1015, 476; EX1018, 6.

Sellberg further discloses "repeatedly" or periodically receiving updated exchange rates as often as "several times a second down to once an hour." EX1006, [0024]. A POSITA would have been motivated to incorporate Sellberg's periodic update mechanism into Calo (as modified by Rude) to ensure exchange rates are consistently refreshed. EX1003, ¶220. When combined with Davidowitz's teachings on updating and displaying asset costs, this would enhance Calo's preview pricing feature by ensuring both exchange rates and asset valuations remain current in volatile markets. *Id.* Such a combination improves pricing transparency and reduces risk from fluctuating market conditions. *Id.*

A POSITA would have had a reasonable expectation of success in combining Davidowitz's real-time cost display functionality with Calo's trading and market servers, which already process real-time data and order execution logic. *Id.*, ¶221. This integration would have been well within the level of ordinary skill and would predictably improve transparency and mitigate volatility in cross-border trading. *Id.*

2. Claim 2

- a) 2[a]: "The platform as recited in claim 1, wherein the trading server is configured to: monitor the conditions in conjunction with a prevailing exchange rate

calculated from the at least one currency exchange server and the market exchange server; and”

As discussed above, the combination of Calo, Rude, Sellberg, and Davidowitz discloses and/or renders obvious the platform recited in claim 1. *Supra*, §VII.A.2; EX1003, ¶222. Further, as discussed, Calo discloses conditions set by a trader, such as limit orders. *Supra*, §VII.A.2.g; EX1003, ¶223; EX1004, [0070]. Calo further discloses monitoring those conditions in conjunction with a prevailing exchange rate calculated from at least one currency exchange server and a market exchange server. EX1003, ¶224. Before execution of a trade (step 301), the customer receives “a preview price on a real-time basis for a U.S. equity,” derived from “both the real-time quote for price on the U.S. equity, as well as a real-time conversion from the foreign exchange rates.” EX1004, [0030]. The GBS (trading server) receives global exchange rates via the Foreign Exchange Facility and equity market data from “the stock exchange 221 of the country from where the equities are being purchased.” *Id.*, [0027], [0050]. A POSITA would have understood that Calo’s trading server monitors limit orders thresholds in conjunction with prevailing exchange rates and asset prices to ensure compliance with trader-specified conditions. EX1003, ¶225; EX1015, 470; EX1016, 45-46.

Davidowitz reinforces this teaching by disclosing continuous monitoring of updated market data—including equity prices and exchange rates—to determine

whether trading conditions are satisfied. EX1008, [0008], [0031], [0036]. A POSITA would have been motivated to incorporate Davidowitz's continuous monitoring into the Calo-Rude-Sellberg system to ensure that limit orders execute only when the specified conditions are met. *Id.*; *supra*, §VII.C.1; EX1003, ¶226.

- b) **2[b]: “perform the transaction of the asset only when the conditions are met, wherein the conditions are periodically checked with respect to an updated market value of the asset and an updated prevailing currency exchange rate calculated from the at least one currency exchange server right before the transaction takes place.”**

Calo discloses performing a transaction of the asset in accordance with trader-specified conditions, such as a limit order. *Supra*, §VII.A.2.g; EX1003, ¶¶227- 228; EX1004, [0030]. Calo further teaches that these conditions are periodically checked against updated market values of the asset and updated prevailing exchange rates. EX1003, ¶229. A POSITA would have understood that to execute a limit order, the trading server must periodically check current market conditions, since execution occurs only if and when the specified price condition is satisfied. EX1003, ¶229; EX1015, 470; EX1016, 45-46. This involves checking both the real-time market value of the asset and the prevailing exchange rate, both of which fluctuate. EX1003, ¶229; EX1004, [0069].

Davidowitz reinforces this understanding by disclosing an automated system that monitors markets and automatically executes transactions based on investor-

defined parameters. EX1003, ¶230; EX1008, [0008]. It would also have been obvious to periodically check conditions in view of Sellberg, which discloses receiving updated exchange rates periodically—“from several times a second down to once an hour.” EX1003, ¶231; EX1006, [0024]. For limit orders, a POSITA would have been motivated to check updated asset values with the same frequency as exchange rates, since both fluctuate and the conditions depend on both. By refreshing these values at regular intervals, the system ensures that trader-specified conditions, like limit orders, are accurately evaluated, improving the execution accuracy and reducing the risk of acting on outdated data. EX1003, ¶231; EX1004, [0069].

Sellberg further discloses using a rate calculated from the at least one currency exchange server immediately before the transaction takes place, confirming that execution is based on current market conditions. *Supra*, §VII.A.2.h; EX1003, ¶232.

3. Claim 5

- a) **5[a]: “The platform as recited in claim 1, wherein the trading server is configured to: receive periodically an updated market value of the asset being traded from the market exchange server;”**

The combination of Calo, Rude, Sellberg, and Davidowitz discloses and/or renders obvious this limitation. EX1003, ¶¶233-235. Calo teaches that, prior to execution of a trade (step 301), the customer receives preview prices “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.” EX1004, [0030]. The GBS couples to “the stock exchange 221 of the country from where the equities are being purchased.” *Id.*, [0027]. The “real-time quote for price of the U.S. equity” reflects the updated market value of the asset being traded, sourced from the relevant market exchange, like the U.S. stock market for U.S. equities. *Id.*, [0030]; EX1003, ¶234.

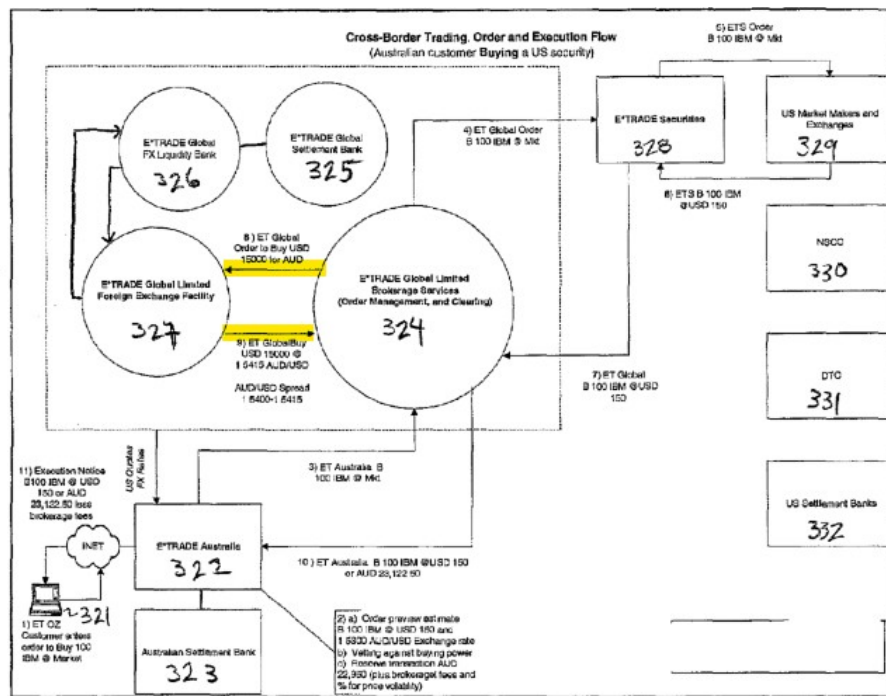
Once the customer places an order based on these estimates, but before execution, Calo’s system provides an order preview reflecting “the current U.S. ask price, the Australian dollar (AUD) equivalent based on the current ask price for USD based on the US principal amount, [and] the estimated commissions and fees for a cross- border trade.” EX1004, [0030]. A POSITA would have understood that, to generate and maintain such real-time preview pricing before order placement and to preview the order before execution, the trading server periodically receives updated market values from the market exchange server. *Id.*; EX1003, ¶234.

Sellberg further discloses “repeatedly” receiving updated exchange rates as often as “several times a second down to once an hour.” EX1003, ¶235; EX1006, [0024]. A POSITA would have been motivated to apply Sellberg’s periodic update mechanism not only to exchange rates but also to the asset’s market value, ensuring that both inputs are refreshed at regular intervals. *Id.*; *supra*, §VII.C.2.b. This

predictable modification would improve accuracy of preview pricing and reduce the risk of execution based on outdated data.

- b) **5[b]: “receive periodically an updated prevailing currency exchange rate from the exchange server; and”**

Calo and Sellberg disclose and/or render obvious this limitation. EX1003, ¶¶236-238. Calo teaches that, prior to execution (step 301), the customer receives preview prices “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.” EX1003, ¶237; EX1004, [0030]. Calo further discloses that the Foreign Exchange Facility “provides indicative foreign exchange rates,” and Figure 3A shows the GBS receiving these rates from the Foreign Exchange Facility (transactions between 324 and 327). EX1004, [0027], [0061].



Sellberg complements this disclosure by teaching that updated exchange rates are received periodically, as often as “several times a second down to once an hour.” EX1006, [0024]. A POSITA would have found it obvious to incorporate Sellberg’s periodic update mechanism into Calo’s system to ensure that the exchange rates used for preview pricing and execution remain current and accurate. EX1003, ¶238.

- c) **5[c]: “determine whether the conditions have been met together with the updated market value of the asset and the updated prevailing currency exchange rate.”**

Calo discloses conditions set by a trader, such as limit orders. *Supra*, §VII.A.2.g; EX1003, ¶¶239-240; EX1004, [0070]. A POSITA would have understood that, to evaluate whether such a condition is satisfied, the trading server must determine whether the updated market value of the asset and the updated

prevailing exchange rate together meet the specified threshold. EX1003, ¶241; EX1015, 470; EX1016, 45-46. Because Calo's trading server relies on both sources to present prices and execute trades, it evaluates conditions based on both updated values. EX1003, ¶241; EX1004, [0030].

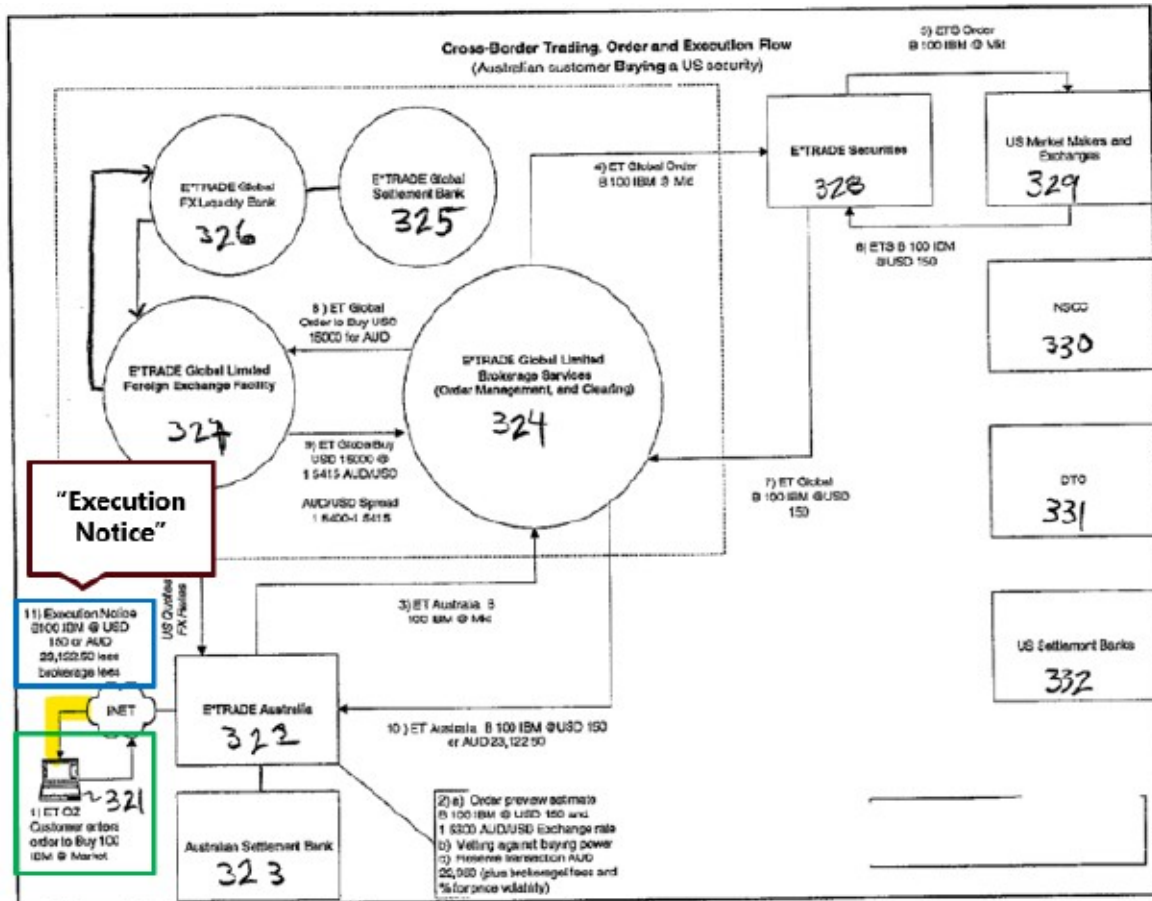
Davidowitz reinforces this understanding by disclosing an automated system that continuously monitors multiple market variables and executes trades when investor-defined parameters are satisfied. EX1003, ¶242; EX1008, [0008]. A POSITA would have been motivated to incorporate Davidowitz's functionality into Calo's system to enhance automation and ensure timely execution based on combined market and currency conditions. EX1003, ¶242.

4. Claim 10

- a) 10[a]: "The platform as recited in claim 8, wherein the client machine shows a settlement soon after the trading server is configured to perform the transaction of the asset only when the conditions are met;"**

The combination of Calo, Rude, Sellberg, and Davidowitz discloses and/or renders obvious the platform recited in claim 8. *Supra*, §VII.A.7; EX1003, ¶¶243-244. Calo teaches performing a transaction of the asset in accordance with trader-specified conditions, such as a limit order. *Supra*, §VII.A.2.g; EX1003, ¶244; EX1004, [0030]. Calo further discloses that the client machine displays a settlement soon after the trading server is configured to perform the transaction. EX1003, ¶245.

Once the conditions are satisfied and the trade is executed, Calo's trading server "gives confirmation to the customer of the purchase" including "commissions and fees." EX1005, [0030]; *supra*, §VII.A.2.i. As shown in Figure 3A, the client machine (e.g., a laptop) receives a settlement in the form of an "Execution Notice".



- b) 10[b]: "wherein the conditions are periodically checked in the trading server with respect to an updated market value of the asset and an updated prevailing currency exchange rate calculated from the at least one currency exchange server right before the transaction takes place."

See *supra*, §VII.C.2.b; EX1003, ¶246.

5. **Claim 13: “The platform as recited in claim 8, wherein the client machine is configured to receive periodically an updated market value of the asset being traded from the market exchange server as a result of an updated prevailing currency exchange rate.”**

The combination of Calo, Rude, Sellberg, and Davidowitz discloses and/or renders obvious the platform recited in claim 8. *Supra*, §VII.A.7.e; EX1003, ¶¶247-248. Calo, in view of Sellberg, teaches a trading server configured to periodically receive an updated market value of the traded asset from the market exchange server. *Supra*, §VII.C.3.a; EX1003, ¶248.

Calo further discloses that the client machine is configured to periodically receive this updated market value, as evidenced by the real-time preview price shown to the user. EX1003, ¶249. Specifically, prior to execution of a trade (step 301), the customer receives “a preview price on a real-time basis for a U.S. equity . . . 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.” EX1004, [0030]. Because the preview price is provided on a “real-time basis,” a POSITA would have understood that it is periodically updated, consistent with Sellberg’s disclosure of updates “several times a second down to once an hour.” EX1006, [0024]. Moreover, once the customer places an order, the system provides a preview reflecting “the Australian dollar (AUD) equivalent based on the current ask price for USD based on the US principal amount.” EX1004, [0030]. A POSITA would have understood that,

between the display of the preview price and the order preview, the asset's market value updates as a result of an updated exchange rate. EX1003, ¶249. This interpretation is reinforced by Calo's disclosure of a "reserve" to account for fluctuations in both asset value and exchange rates. *Id.*; EX1004, [0030].

Davidowitz further supports this understanding by disclosing continuous monitoring of exchange rates and updating of trading information in response to changing market conditions. EX1003, ¶¶250-251; EX1008, [0007]-[0008]. A POSITA would have recognized that incorporating Davidowitz's more granular approach to updating asset values would enhance Calo's preview price feature by providing more transparent and responsive cost updates as exchange rates fluctuate. EX1003, ¶¶250-251; EX1004, [0069]; EX1015, 476; EX1018, 6.

VIII. MANDATORY NOTICES PURSUANT TO 37 C.F.R. §42.8

A. Real Parties-In-Interest under 37 C.F.R. §42.8(b)(1).

Nium Pte. Ltd. is the Petitioner. Nium Pte. Ltd. is the real party in interest in this proceeding.

B. Related Matters Under 37 C.F.R. §42.8(b)(2).

Intercurrency Software LLC has asserted U.S. Patent No. 11,620,701 in multiple patent infringement lawsuits filed in the United States District Court for the Eastern District of Texas. The following lawsuits are currently pending:

- *Intercurrency Software LLC v. MoneyMovr Limited*, 2-24-cv-01012 (E.D. Tex. 12/09/2024);
- *Intercurrency Software LLC v. TTT Moneycorp Limited*, 2-25-cv-00056 (E.D. Tex. 01/21/2025);
- *Intercurrency Software LLC v. CurrencyFair Limited et al.*, 2-25-cv-00083 (E.D. Tex. 01/28/2025);
- *Intercurrency Software LLC v. Skrill Limited*, 2-25-cv-00702 (E.D. Tex. 07/09/2025);
- *Intercurrency Software LLC v. Nium Pte. Ltd.*, 2-25-cv-00701 (E.D. Tex. 07/09/2025);
- *Intercurrency Software LLC v. WorldRemit Limited*, 2-25-cv-00703 (E.D. Tex. 07/10/2025).

C. Lead and Back-up Counsel under 37 C.F.R. §42.8(b)(3).

Lead Counsel	Backup Counsel
Brian W. Oaks (Reg. No. 44,981) McDERMOTT WILL & SCHULTE LLP 300 Colorado Street, Suite 2200 Austin, TX 78701 TEL: 512-726-2574 EMAIL: boaks@mwe.com	Syed K. Fareed (Reg. No. 67,088) McDERMOTT WILL & SCHULTE LLP 300 Colorado Street, Suite 2200 Austin, TX 78701 TEL: 512-726-2579 EMAIL: sfareed@mwe.com Kyle Sorenson (Reg. No. 77,511) McDERMOTT WILL & SCHULTE LLP 300 Colorado Street, Suite 2200 Austin, TX 78701 TEL: 512-298-1371 EMAIL: ksorenson@mwe.com

D. Service Information under 37 C.F.R. §42.8(b)(4).

Please direct all correspondence to lead counsel at the IPR-Nium-MWS@mwe.com. Petitioner consents to electronic service on counsel of record.

IX. GROUNDS FOR STANDING

Petitioner certifies that the '701 Patent is available for *inter partes* review and that Petitioner is not barred or estopped from requesting an *inter partes* review of the '701 Patent. 37 C.F.R. §42.104(a).

X. PAYMENT OF FEES

Payment for fees is authorized from Deposit Account 50-0417.

XI. STATEMENT OF PRECISE RELIEF REQUESTED

Petitioner requests IPR and cancellation of claims 1-16 because they are unpatentable under 35 U.S.C. §103 based on the foregoing grounds.

Date: October 7, 2025

Respectfully submitted,

/Brian W. Oaks/

Brian W. Oaks (Reg. No. 44,981)
McDERMOTT WILL & SCHULTE LLP
300 Colorado Street, Suite 2200
Austin, TX 78701
TEL: 512-726-2574
EMAIL: boaks@mwe.com

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. §§42.6 and 42.105, I hereby certify that on October 7, 2025, a copy of the attached PETITION FOR INTER PARTES REVIEW OF U.S. PATENT NO. 11,620,701, together with all exhibits, and all other papers filed therewith, including a Power of Attorney on behalf of Petitioners, was served via Federal Express on the attorneys of record for the patent owner, and counsel for Patent Owner in the related litigation, at the following address:

Joe Zheng
LogicPatents, LLC
21701 Stevens Creek Boulevard, #284
Cupertino, CA 95015

Christopher Honea
Garteiser Honea
119 W. Ferguson St.
Tyler, TX 75702

Date: October 7, 2025

Respectfully submitted,

/Brian W. Oaks/

Brian W. Oaks (Reg. No. 44,981)
McDERMOTT WILL & SCHULTE LLP
300 Colorado Street, Suite 2200
Austin, TX 78701
TEL: 512-726-2574
EMAIL: boaks@mwe.com

CERTIFICATION PURSUANT TO 37 C.F.R. § 42.24(d)

Pursuant to 37 C.F.R. § 42.24(d), the undersigned certifies that this PETITION FOR INTER PARTES REVIEW OF U.S. PATENT NO. 11,620,701, complies with the type-volume limitation of 37 C.F.R. § 42.24(a). The word count application of the word processing program used to prepare this paper states that the paper contains 13,998 words, excluding the parts of the paper exempted by 37 C.F.R. §§ 42.24(a)(1).

Date: October 7, 2025

Respectfully submitted,

/Brian W. Oaks/

Brian W. Oaks (Reg. No. 44,981)
McDERMOTT WILL & SCHULTE LLP
300 Colorado Street, Suite 2200
Austin, TX 78701
TEL: 512-726-2574
EMAIL: boaks@mwe.com