

**UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK**

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**INVESTMENT TECHNOLOGY GROUP,  
INC., ITG INC., ITG SOLUTIONS  
NETWORK, INC., AND THE  
MACGREGOR GROUP, INC.,**

**Plaintiffs/Counterclaim-  
Defendants,**

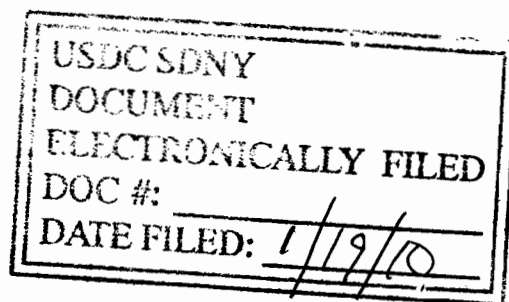
**- against -**

**LIQUIDNET HOLDINGS, INC.,**

**Defendant/Counterclaim-  
Plaintiff.**

**OPINION & ORDER**

**07 Civ. 510 (SAS)**



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**LIQUIDNET HOLDINGS, INC.,**

**Plaintiff/Counterclaim-  
Defendant,**

**- against -**

**PULSE TRADING, INC.,**

**Defendant/Counterclaim-  
Plaintiff.**

**07 Civ. 6886 (SAS)**

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**SHIRA A. SCHEINDLIN, U.S.D.J.**

**I. INTRODUCTION**

Investment Technology Group (“ITG”) and related corporate entities have brought an action against Liquidnet Holdings, Inc. (“Liquidnet”) seeking a declaratory judgment that U.S. Patent No. 7,136,834 (“Patent ‘834”) is invalid, unenforceable, and not infringed by ITG products. Liquidnet has brought its own action against Pulse Trading, Inc. (“Pulse”) alleging infringement of claim one of Patent ‘834. The defendants in both cases have asserted counterclaims, and the cases have been consolidated before this Court.

Claim construction – the process wherein the court determines, as a matter of law, the meaning of disputed claim terms – is a task preferably tackled early on in a patent infringement action. Because of the elevation of Judge Gerard Lynch to the Second Circuit, and the subsequent transfer of the *ITG* and *Pulse* cases to this Court, that process has been unavoidably delayed. However, a Markman hearing – which provides the parties the opportunity to argue for, and introduce evidence in support of, their proposed constructions – was held on December 16, 2009. The parties dispute the meaning of eleven terms appearing throughout claim one of Patent ‘834. For ease of reference, a list of the constructions I have adopted is included at the conclusion of this Opinion.

## **II. BACKGROUND**

### **A. The Invention**

On November 14, 2006, the Patent and Trademark Office (“PTO”) issued Patent ‘834 – entitled “Electronic Securities Marketplace Having Integration with Order Management Systems” – to Liquidnet.<sup>1</sup> In basic terms, the patented invention allows institutional investment management firms to connect with an electronic marketplace and trade securities (or other financial instruments) with one another.

These investment firms often seek to trade very large blocks of securities. If such trades are executed on traditional markets, the trades themselves may drive the price of the security up during the purchasing process. In order to reduce this impact, companies have developed electronic crossing networks – which allow firms to trade securities with one another outside of traditional markets.

Patent ‘834 claims a computer-implemented method that, according to Liquidnet, provides one solution to reducing the market impact of block trades. Liquidnet’s electronic trading system requires each participating investment firm to have a computerized Order Management System (“OMS”) – which traders at

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<sup>1</sup> See 11/14/06 U.S. Patent 7,136,834 (“Patent ‘834”), Ex. 1 to Declaration of Elizabeth Brenner-Leifer (“Brenner-Leifer Decl.”), counsel for ITG. Technically, patents are issued to the individual inventors who apply for them. However, the patent is assigned to Liquidnet, who for all intents and purposes owns and controls the patent.

the firm use to store information about orders to purchase or sell securities.<sup>2</sup> The patented method uses an OMS Interfacing Module (“OIM”) to gather orders from these OMS databases and transmit them to an Electronic Trading Marketplace (“ETM”).<sup>3</sup> Securities trades are then negotiated within the ETM<sup>4</sup> and the electronic system can update the OMS databases to reflect these trades.<sup>5</sup>

Liquidnet argues, and the patent’s background section reflects, that this patented method was designed to fulfill three needs in the institutional securities trading industry. *First*, it provides an electronic trading system “that does not require any manual intervention by traders or other parties.”<sup>6</sup> *Second*, it allows traders “to anonymously negotiate trades of securities.”<sup>7</sup> *Third*, it creates a high amount of liquidity – *i.e.*, the degree to which an asset or security can be traded without affecting its price.<sup>8</sup>

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<sup>2</sup> See *id.* col. 1 ll. 22-25, col. 2 ll. 38-48.

<sup>3</sup> See *id.* col. 2 ll. 49-52. The patent uses the terms Electronic Trading Marketplace and Electronic Marketplace synonymously. I will use the abbreviation “ETM” to refer to both terms.

<sup>4</sup> See *id.* col. 2 ll. 52-53.

<sup>5</sup> See *id.* col. 2 ll. 49-52.

<sup>6</sup> *Id.* col. 2 ll. 31-32.

<sup>7</sup> *Id.* col. 2 l. 53.

<sup>8</sup> See *id.* col. 2 l. 34.

## B. Claim One Language

Claim one of Patent '834 contains the following language. The disputed terms are emphasized.

We claim:

1. A computer-implemented method for generating non-binding indications for at least one security comprising:

i) *accessing, by at least one computer, all records of open orders* from a database of an order management system wherein the order management database is associated with a trading firm and wherein the order management system is coupled to at least one workstation utilized by the trading firm wherein the order management system database comprises at least the following fields.

- (a) security name, symbol or identifier,
- (b) transaction type,
- (c) total order size,
- (d) quantity of the security placed elsewhere, and
- (e) quantity of the security executed;

ii) *generating, by at least one computer, all non-binding indications* from the accessed records of orders that are *suitable for transmission* to at least one *electronic marketplace*, each *non-binding indication* comprising security name, symbol or identifier, the transaction type, and an available quantity, such available quantity being determined by the accessed records;

iii) *sending* the suitable *non-binding indications* to the at least one *electronic marketplace*.

iv) *periodically determining* if at least one accessed record of order of the order management system database has changed, then *subsequently generating*, for the changed record of order, at least one updated *non-binding indication*; and

v) if updated, *subsequently sending* the updated *non-binding indication* to the at least one *electronic marketplace*.

### **C. Procedural History**

ITG and Pulse, like Liquidnet, develop and market electronic securities trading systems. Liquidnet alleges that various ITG and Pulse products infringe claim one of Patent '834.<sup>9</sup> ITG and Pulse allege that Liquidnet's patent is invalid, unenforceable, and not infringed by ITG and Pulse's various trading systems.<sup>10</sup>

Specifically, the litigation contains the following claims and counterclaims. On January 1, 2007, ITG filed a declaratory judgment action against Liquidnet seeking a declaration that Patent '834 is invalid, unenforceable, and not infringed by ITG, and damages based on Liquidnet's tortious interference with ITG's prospective business relations.<sup>11</sup> Liquidnet counterclaimed that ITG's products infringe Patent '834.<sup>12</sup> On July 31, 2007, Liquidnet filed a patent

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<sup>9</sup> See Liquidnet's Opening Claim Construction Brief ("Liquidnet Br.") at 1.

<sup>10</sup> See Opening Claim Construction Brief of ITG and Pulse Trading ("ITG Br.") at 1.

<sup>11</sup> See 1/1/07 ITG Complaint Against Liquidnet.

<sup>12</sup> See 2/13/07 Liquidnet Answer to ITG Complaint.

infringement action against Pulse Trading – asserting that Pulse’s products infringe claim one of Patent ‘834.<sup>13</sup> Pulse filed a counterclaim seeking a declaration that Pulse has not infringed Patent ‘834.<sup>14</sup>

### III. APPLICABLE LAW

Analysis of patent infringement involves two steps: (1) construction of the terms of the asserted claims and (2) a determination of whether the accused device infringes the claims, as construed.<sup>15</sup> Claim construction is a question of law,<sup>16</sup> the purpose of which is to determine what is covered by an asserted claim. In other words, “[t]he construction of claims is simply a way of elaborating the normally terse claim language in order to understand and explain, but not to change, the scope of the claims.”<sup>17</sup>

The following canons of construction are often employed by courts in interpreting patent claims. However, the Federal Circuit has “recognized that

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<sup>13</sup> See 7/31/07 Liquidnet Complaint Against Pulse.

<sup>14</sup> See 8/21/07 Pulse Answer to Liquidnet Complaint.

<sup>15</sup> See *Metabolite Labs., Inc. v. Laboratory Corp. of Am. Holdings*, 370 F.3d 1354, 1360 (Fed. Cir. 2004).

<sup>16</sup> See *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 384, 390-91 (1996).

<sup>17</sup> *DeMarini Sports, Inc. v. Worth, Inc.*, 239 F.3d 1314, 1322 (Fed. Cir. 2001) (quoting *Embrex, Inc. v. Services Eng’g Corp.*, 216 F.3d 1343, 1347 (Fed. Cir. 2000)).

there is no magic formula or catechism for conducting claim construction,”<sup>18</sup> and it is apparent from experience that the various canons of claim construction will sometimes, if not often, lead to contradictory results. Accordingly, while these interpretive tools can be indispensable aids to a federal district court tasked with construing the meaning of a patent claim, the court must ultimately be guided by the core inquiry of claim construction: How a “person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application,” would understand the terms of the claim.<sup>19</sup>

#### **A. Intrinsic Evidence**

Claims are to be construed in light of the intrinsic record, which “is the most significant source of legally operative meaning of disputed claim language.”<sup>20</sup> The intrinsic record includes the claims themselves, the rest of the patent specification, and the prosecution history if in evidence.

##### **1. Claim Language**

Judicial interpretation must begin with and remain focused upon the

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<sup>18</sup> *Phillips v. AWH Corp.*, 415 F.3d 1303, 1324 (Fed. Cir. 2005) (en banc).

<sup>19</sup> *Id.* at 1313.

<sup>20</sup> *Vitronics Corp. v. Conceptoronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996).



“words of the claims themselves . . . to define the scope of the patented invention.”<sup>21</sup> On occasion, “the ordinary meaning of claim language as understood by a person of skill in the art” will be sufficiently apparent that the claim language itself is all that is needed to construe the claims at issue.<sup>22</sup>

However, even when the terms in a claim are not self-explanatory, “[t]he context in which a term is used in the asserted claim can be highly instructive. To take a simple example, [the use of the term] ‘steel baffles’ . . . strongly implies that the term ‘baffles’ does not inherently mean objects made of steel.”<sup>23</sup>

“Other claims of the patent in question, both asserted and unasserted, can also be valuable sources of enlightenment as to the meaning of a claim term.”<sup>24</sup> In particular, the doctrine of claim differentiation has had a significant impact on claim construction. According to this doctrine, because it is assumed that additional claims are not added to a patent superfluously, claims are presumed to have a different “meaning and scope when different words or phrases are used

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<sup>21</sup> *Id.*

<sup>22</sup> *Phillips*, 415 F.3d at 1314 (citation omitted).

<sup>23</sup> *Id.*

<sup>24</sup> *Id.*

in [the] separate claims.”<sup>25</sup> However, the Federal Circuit has long stressed that “[c]laim differentiation is a guide, not a rigid rule,”<sup>26</sup> and has recently urged district courts to recognize that the doctrine “works best in the relationship between independent and dependent claims,”<sup>27</sup> *i.e.*, when a latter claim (the dependent claim) expressly adds a limitation to those already recited in a previously asserted claim (the independent claim).<sup>28</sup>

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<sup>25</sup> *Tandon Corp. v. United States Intern. Trade Com’n*, 831 F.2d 1017, 1023 (Fed. Cir. 1987).

<sup>26</sup> *Id.*

<sup>27</sup> *Curtiss-Wright Flow Control Corp. v. Velan, Inc.*, 438 F.3d 1374, 1380 (Fed. Cir. 2006). *See id.* (because section 112 of title 35 of the United States Code requires dependent claims to “add a limitation to those recited in the independent claim . . . reading an additional limitation from a dependent claim into an independent claim would not only make that additional limitation superfluous, it might render the claim invalid.”).

<sup>28</sup> Professor Mark A. Lemley’s article, “The Limits of Claim Differentiation,” 22 *Berkeley Tech. L.J.* 1389 (2007), helps to illuminate why the doctrine of claim differentiation is often misapplied by courts. Claim differentiation is a corollary to the doctrine of statutory construction that rejects redundant interpretations of various statutory provisions. *See id.* at 1392. Like this statutory doctrine, which presumes that Congress “would not knowingly pass the same statute twice,” the doctrine of claim differentiation is based on the presumption that patent applicants (like legislators) will not waste time and money “drafting two claims that mean exactly the same thing.” *Id.* However, according to Lemley, this presumption does not reflect the common practice of patent applicants. Rather, “[p]atent applicants who draft multiple claims quite often are trying to be redundant . . . because writing words to define ideas is an inherently difficult and uncertain process, and taking multiple bites at the apple gives patentees a greater chance of successfully capturing their single invention in

## 2. The Specification

Apart from the claims themselves, a patent consists of a written description of the patented invention. This written description, which is also referred to as the specification,<sup>29</sup> typically includes: an abstract of the invention; a description of the invention's background; a summary of the invention; patent drawings; and a detailed description that discusses preferred embodiments of the invention. Because the specification must, by statute, enable one skilled in the art to practice the invention,<sup>30</sup> it "is always highly relevant to the claim construction

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words." *Id.* at 1394 (citations omitted). In such instances, the doctrine of claim differentiation can "lead courts astray" by encouraging them to give unique meanings to terms that were intended to have a single meaning. *Id.* Accordingly, Lemley suggests that the doctrine of claim differentiation should be limited to contexts, such as when a court is comparing independent and dependent claims, where it is more likely that different meanings were actually intended. *See id.* at 1396.

<sup>29</sup> The terminology used to describe the parts of a patent can be slightly confusing. Technically, the specification includes both the claims and the written description. However, courts typically use the term specification to refer to the written description on its own and as distinct from the claims. For purposes of consistency, I adopt this common usage.

<sup>30</sup> *See* 35 U.S.C. § 112 ("The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention."). The Federal Circuit has also explained that courts should rely on intrinsic evidence because a person of ordinary skill in the field would use "the patent specification and the prosecution history" to understand the

analysis.”<sup>31</sup> Accordingly, it is axiomatic that the “claims must be read in view of the specification, of which they are a part.”<sup>32</sup>

However, there is a difference “between using the specification to interpret the meaning of a claim and importing limitations from the specification into the claim.”<sup>33</sup> The former is permissible; the latter is not. Although it is often difficult to distinguish between these interpretive outcomes, the Federal Circuit has provided some general guidance to aid district courts. Because it is the claims themselves that “define the scope of the right to exclude,”<sup>34</sup> the specification should normally only be used to limit a claim: (1) if the claim “explicitly recite[s] a term in need of definition”<sup>35</sup>; or (2) if the specification unambiguously defines a term, *i.e.*, if “a patent applicant has elected to be a lexicographer by providing an

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invention claimed by the patent. *Multiform Desiccants, Inc. v. Medzam, Ltd.*, 133 F.3d 1473, 1477 (Fed. Cir. 1998). *Accord Phillips*, 415 F.3d at 1311-14.

<sup>31</sup> *Phillips*, 415 F.3d at 1315 (quotation marks and citations omitted).

<sup>32</sup> *Id.* In fact, a claim interpretation that excludes a preferred embodiment described in the specification is “rarely, if ever, correct.” *Vitronics*, 90 F.3d at 1583.

<sup>33</sup> *Phillips*, 415 F.3d at 1323.

<sup>34</sup> *Renishaw PLC v. Marposs Societa’ Per Azioni*, 158 F.3d 1243, 1248 (Fed. Cir. 1998).

<sup>35</sup> *Id.*

explicit definition in the specification for a claim term.”<sup>36</sup> While these guideposts do not make every question an easy one,<sup>37</sup> they do provide an informed starting point from which to begin interpretation.

### 3. Prosecution History

The prosecution history of a patent, sometimes called the patent’s file wrapper or file history, “consists of the complete record of the proceedings before the PTO and includes the prior art cited during the examination of the patent.”<sup>38</sup> “Because the prosecution history represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and thus is less useful for claim construction purposes.”<sup>39</sup> Nonetheless, “[l]ike the specification, the prosecution history provides evidence of how the PTO and the inventor understood the patent,” and accordingly, “can often inform the meaning of the claim language[.]”<sup>40</sup>

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<sup>36</sup> *Id.* at 1249.

<sup>37</sup> *See Phillips*, 415 F.3d at 1323 (“In the end, there will still remain some cases in which it will be hard to determine whether a person of skill in the art would understand the embodiments to define the outer limits of the claim term or merely to be exemplary in nature.”).

<sup>38</sup> *Id.* at 1317(citation omitted).

<sup>39</sup> *Id.* (citations omitted).

<sup>40</sup> *Id.* (citations omitted)

As with other sources of intrinsic evidence, courts have developed various doctrines to aid in the application of these general interpretive principles. Importantly, under the prosecution disclaimer doctrine, “the prosecution history . . . [may] limit[] the interpretation of claims so as to exclude any interpretation that [has] been disclaimed or disavowed during prosecution in order to obtain claim allowance.”<sup>41</sup> For example, if an applicant makes limiting statements to overcome prior art that the PTO asserts will invalidate one of the patent’s claims, the scope of that claim should normally be limited to exclude the disavowed material.<sup>42</sup> However, the Federal Circuit has stressed that “the disavowal must be both clear and unmistakable to one of ordinary skill in the art” for this doctrine to apply.<sup>43</sup>

## **B. Extrinsic Evidence**

The extrinsic record “consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and

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<sup>41</sup> *Standard Oil Co. v. American Cyanamid Co.*, 774 F.2d 448, 452 (Fed. Cir. 1989).

<sup>42</sup> *See Southwall Techs., Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1576 (Fed. Cir. 1995) (“Claims may not be construed one way in order to obtain their allowance and in a different way against accused infringers.”).

<sup>43</sup> *Elbex Video, Ltd. v. Sensormatic Elecs. Corp.*, 508 F.3d 1366, 1371 (Fed. Cir. 2007).

learned treatises.”<sup>44</sup> Because extrinsic evidence (unlike intrinsic evidence) is not part of “the indisputable public record,” putting too much weight on that evidence “poses the risk [of] . . . undermining the public notice functions of patents.”<sup>45</sup> Nevertheless, while extrinsic evidence is less important than intrinsic evidence, it remains useful and district courts are “authorized . . . to rely upon [it].”<sup>46</sup> In particular, “technical dictionaries” may help “a court to better understand the underlying technology and the way in which one of skill in the art might use the claim terms.”<sup>47</sup>

#### **IV. DISCUSSION**

##### **A. “Automatic” and “Without Manual Intervention”**

Liquidnet requests that I construe several terms within claim one of Patent ‘834 to include the words “automatically” and “without manual intervention.” For example, it proposes that the term “by at least one computer” be construed throughout the patent claim as “by one or more computers, without

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<sup>44</sup> *Phillips*, 415 F.3d at 1317.

<sup>45</sup> *Id.* at 1319.

<sup>46</sup> *Id.* at 1317.

<sup>47</sup> *Id.* at 1318.

manual intervention.”<sup>48</sup> Because claim one does not use the words “automatically”, “without manual intervention”, or any analog, Liquidnet relies for support on the patent’s specification – which, unlike the claim itself, frequently uses both terms. Of particular relevance, the specification outlines in detail “that there is a need in the art for an electronic marketplace that does not require *any manual intervention* or traders,”<sup>49</sup> and asserts that “[t]he present invention addresses [that] need by providing for the *automated* transmission of orders (*i.e., without manual trader intervention*) from various order management systems . . . to an electronic trading marketplace[.]”<sup>50</sup>

This language, along with the fact that the specification discusses multiple preferred embodiments wherein the patented method occurs automatically, provides evidence that the inventor envisioned the patented method

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<sup>48</sup> In total, Liquidnet proposes that this construction be read into five different terms that appear one or more times in the claim: (1) that “by at least one computer” be construed as “by one or more computers, without manual intervention”; (2) that “subsequently generating” be construed as “subsequently producing in a format understood by the electronic marketplace automatically, without manual intervention”; (3) that “sending” be construed as “automatically transmitting, without manual intervention”; (4) that “subsequently sending” be construed as “subsequently transmitting automatically, without manual intervention”; (5) that “periodically determining” be construed as “automatically determining, from time to time, without manual intervention.”

<sup>49</sup> Patent ‘834 col. 2 ll. 30-33.

<sup>50</sup> *Id.* col. 2 ll. 38-43 (emphasis added).



occurring without manual intervention. However, this pervasive use of the words “automatically” and “without manual intervention” does not settle the issue.<sup>51</sup> It is the claim itself, and not the specification, that defines an invention, and courts are well-advised not to add limiting modifiers (*e.g.*, an adjective like “automatically”) to broad claim language (*e.g.*, a verb like “sending”) without sufficient justification.<sup>52</sup>

As stated, the Federal Circuit has discussed two ways in which the specification can be used to narrow the construction of a patent’s claims. While

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<sup>51</sup> See *Lemelson v. United States*, 752 F.2d 1538, 1552 (Fed. Cir. 1985) (holding that a district court erred in construing the term “prepositioning” to mean “automatic prepositioning” even though the specification only discussed *automatic* prepositioning and did not discuss *manual* prepositioning at all). As Patent ‘834 itself states of the specification: “The above description is included to illustrate the operation of the preferred embodiments and is not meant to limit the scope of the invention. The scope of the invention is to be limited only by the following claims.” Patent ‘834 col. 12 ll. 42-45. This may be boilerplate language found in almost any patent, but it must still be taken seriously. A patent applicant should not be allowed to use a patent’s described embodiments to broaden that patent’s scope when doing so is desirable (*e.g.*, to sue for alleged infringement by later inventions) and to narrow it when doing so is desirable (*e.g.*, to avoid invalidation by prior art).

<sup>52</sup> See *Renishaw PLC*, 158 F.3d at 1249-50 (“Nor may we in the broader situation, add a narrowing modifier before an otherwise general term that stands unmodified in a claim. For example, if an apparatus claim recites a general structure (*e.g.*, a noun) without limiting that structure to a specific subset of structure (*e.g.*, with an adjective), we will generally construe the claim to cover all known types of that structure that are supported by the patent disclosure.” (citations omitted)).

these are not necessarily the only ways that such narrowing can occur, they do provide a good starting point for analysis.

*First*, the claim may contain ambiguous language that is susceptible to being construed as requiring the requested limitation. The closest such term in claim one is “by at least one computer.” During the Markman hearing, Liquidnet contrasted *computerized* operations with *manual* operations, and stressed that the patented method was computerized.<sup>53</sup> However, while the computerization of a process does suggest a degree of automation, this term does not rule out manual intervention. As a matter of common sense, it is apparent that some computer functions require manual intervention (*e.g.*, a user must often click a key to save a document to a computer’s hard drive). In addition, and perhaps more importantly, the specification states that even though computers are used in the prior art, these processes are not fully automated.<sup>54</sup> If, as the specification states, the use of

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<sup>53</sup> See 12/16/09 Markman Hearing Transcript (“Tr.”) at 64-65.

<sup>54</sup> See Patent ‘834 col. 1 ll. 20-33 (“Although computers are heavily used to facilitate trading of securities, manual intervention is still required at certain steps in the trading process. For example, most traders at institutional investment management firms record their orders to purchase or sell securities in computerized order management systems (OMS’s). However, one or more traders at each firm must manually review the orders in the OMS and attempt to fill the orders by contacting one or more market intermediaries. Typically, the traders transmit the orders in the OMS by telephone or separate data entry links to registered broker-dealers for the securities, to electronic marketplaces that trade the securities, or to other market intermediaries. Accordingly, manual effort is

computers in the prior art does not mean that those processes occur automatically, the use of computers in the patented method cannot require such automation.

*Second*, a specification may unambiguously provide a non-standard definition for a term. Liquidnet has not highlighted, and I have not found, any express definitions within the specification. For example, the specification does not expressly state, as it could, that the term “sending” means “automatically sending.”

Nevertheless, Liquidnet asks me to read the claim terms to include the words “automatically” and “without manual intervention” on the grounds that the purpose of the invention will be frustrated unless the patented method includes such limitations.<sup>55</sup> As Liquidnet argues, the specification explicitly describes the importance of the invention’s automatic nature to solving issues not addressed in the prior art. I am also convinced that the invention, as it is actually practiced, involves a large degree of automation, and that its success in the marketplace is at least partly due to this automation.<sup>56</sup> However, while an invention’s purpose can

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required to actually execute the orders in the OMS.”).

<sup>55</sup> See Tr. at 48-49.

<sup>56</sup> See, e.g., 5/31/02 Dow Jones News Story, Ex. 8 to Declaration of Gaston Kroub (“Kroub Decl.”), counsel for Liquidnet, at 2 (“Liquidnet differs from all its counterparts in that traders do not have to enter orders themselves. Its software searches participants’ order management systems (OMSs) and

be useful for interpreting “ambiguous” claim language,<sup>57</sup> the Federal Circuit has made clear that “the court’s task is not to limit claim language to exclude particular devices because they do not serve a perceived ‘purpose’ of the invention.”<sup>58</sup> In our patent system, it is the claims, and not the invention to which they relate, that define a patent’s scope.

Moreover, it is apparent from the specification that the claimed invention is not exclusively aimed at addressing the lack of automation in the prior art.<sup>59</sup> The patented method is also designed to address the need for an electronic trading system that offers anonymity,<sup>60</sup> creates a high amount of liquidity,<sup>61</sup> and prevents over-execution of trades.<sup>62</sup> In fact, during prosecution, the patent

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automatically alerts traders to natural matches.”).

<sup>57</sup> *E-Pass Techs., Inc. v. 3Com Corp.*, 343 F.3d 1364, 1370 n.3 (Fed. Cir. 2003).

<sup>58</sup> *Id.* at 1370.

<sup>59</sup> *See id.* (“An invention may possess a number of advantages or purposes, and there is no requirement that every claim directed to that invention be limited to encompass all of them.”).

<sup>60</sup> *See* Patent ‘834 col. 2 l. 32.

<sup>61</sup> *See id.* col. 2 l. 33.

<sup>62</sup> *See id.* col. 2 ll. 18-22. At the Markman hearing, Liquidnet argued that it is the automatic nature of the patented method that creates liquidity and prevents over-execution. *See* Tr. at 48. And the specification corroborates that the use of manual effort contributed, in part, to the existence of these problems in

applicants removed the term “automatically” from the claim language in response to the PTO’s assertions that the automatic nature of the method would not distinguish the patent from the prior art. In doing so, the applicants made clear that “although Applicants still do not agree with the Examiner’s previous discussion [regarding automatic execution] . . . , this limitation is not relied upon as a distinguishing element in the current claims.”<sup>63</sup> While this statement is not definitive in determining the scope of the claim at issue, it further supports the view that the patented method need not proceed automatically.

Liquidnet and ITG have both made persuasive arguments regarding whether the patented method should be construed to occur automatically. Because one skilled in the art could reasonably have adopted either interpretation, this is one of those unfortunate situations where the patent has failed to perform adequately its public notice function, and my decision may consequently

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the prior art. *See, e.g.*, Patent ‘834 col. 1 ll. 34-37 (“One problem arising from this manual effort is that institutional traders cannot execute trades involving large quantities of securities without adversely affecting the market price of the securities.”). However, the specification also discloses other ways that the invention addresses gaps in the prior art. For example, the patented method is designed to allow “[t]raders [to] communicate with the ETM to *anonymously* negotiate trades of securities.” Patent ‘834 col. 2 ll. 52-53 (emphasis added). This is a proposed benefit of the patented method that is entirely independent of the invention’s automatic nature.

<sup>63</sup> 7/12/06 Amendment to Patent ‘834, Ex. 4R to Brenner-Leifer Decl., at 7.

undermine the reasonable expectations of persons who are engaged in practicing or designing around the claimed invention. Nevertheless, this case cannot proceed with two interpretations of the same term, and I must therefore choose the definition that most closely accords with the claim language and the intrinsic evidence. While I do not doubt that the applicants believed their invention would work best when the method is automated, the intrinsic evidence is insufficient to read such a limitation into the claim. If automation was absolutely necessary to the invention, the words “automatically” and “without manual intervention” should have appeared in the claim itself.

Accordingly, I do not construe any of the disputed terms to include the words “automatically” or “without manual intervention.”

**B. “Accessing, by at least one computer, all records of open orders”**

**1. “Accessing”**

Liquidnet proposes that I construe “accessing” to mean “gaining entry to,”<sup>64</sup> while ITG/Pulse proposes that I construe it to mean “retrieving.”<sup>65</sup> The parties appear to agree that the patented method must perform both of these steps – *i.e.*, it must first gain entry to the OMS database and then at some point retrieve

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<sup>64</sup> Liquidnet Br. at 12.

<sup>65</sup> Opening Brief of ITG and Pulse Concerning Claim Construction (“ITG/Pulse Br.”) at 33.

data from within that database in order to transmit it to an ETM.<sup>66</sup> However, the parties disagree as to which action the term “accessing” refers. While both parties’ arguments are meritorious, Liquidnet’s construction has the greater evidentiary support.

*First*, Liquidnet’s construction better reflects the ordinary meaning that one skilled in the art would attribute to the term “accessing” when reading it in the context of the specification. In one of the few places that the specification uses the term accessing, it discloses that:

The OIM is in communication with the OMS database and the ETM. An OMS database integration module in the OIM reads data records stored in the OMS database and, in a preferred embodiment, also creates and modifies data records stored in the OMS database upon execution of a trade through the ETM. In one embodiment, the OMS database interaction module directly *accesses* the OMS database and in another embodiment it sends commands to an application programming interface (API) in the OMS for *accessing* the database.<sup>67</sup>

Although the specification never defines “accessing,” this section uses the terms “accesses” and “accessing” to refer to a mode of “communication” between the

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<sup>66</sup> See Liquidnet Br. at 13 (“[T]he act of retrieving data must logically be something that takes place after the step of ‘accessing’ that data.”); Responsive Brief of ITG and Pulse (“ITG/Pulse Resp.”) at 19 (“ITG and Pulse agree that to retrieve data – in Liquidnet’s example email — one must connect to the database through the use of a computer.”).

<sup>67</sup> Patent ‘834 col. 3 ll. 43-52 (emphases added).

OIM and the OMS database wherein the OIM reads and monitors records within the OMS database. Nothing in this section suggests that the records must be retrieved for them to be accessed. Instead, it appears that when the patent applicants used the term “accessing,” they contemplated a process in which the OIM would be able to *gain entry to* the records and read them while they remained within the database.<sup>68</sup>

*Second*, and relatedly, ITG/Pulse’s construction would exclude preferred embodiments described in the specification. According to Patent ‘834, after a trader logs on to the OMS, the trader’s computer “retrieves data records about orders suitable for transmission to the ETM from the OMS database.”<sup>69</sup> In one embodiment, “all open orders are suitable for transmission to the ETM,” but in other embodiments, only some orders are deemed suitable for transmission.<sup>70</sup> The

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<sup>68</sup> The parties disagree about whether computers, at the time Patent ‘834 was filed in 2001, were able to manipulate data without first retrieving that data to memory. *Compare* Liquidnet Br. at 13 (describing a process by which email may be accessed without retrieving those emails) *with* ITG/Pulse Resp. at 18 (“A computer cannot do anything with data until it has first retrieved it to memory.”). *See also* Tr. at 31-32, 43-44. However, neither party has introduced expert testimony on this point, and I cannot determine the state of technology in 2001 on the basis of attorney representations. I must rely on the intrinsic and extrinsic evidence that is in the record to determine the correct meaning of the term “accessing.”

<sup>69</sup> Patent ‘834 col. 11 ll. 17-20.

<sup>70</sup> *Id.* col. 11 ll. 20-27.



specification, therefore, discloses embodiments wherein the trader's computer will only retrieve the records of some orders – *i.e.*, those determined to be suitable for transmission. Because the claim describes the patented method as “accessing . . . *all* records of open orders,” construing “accessing” to mean “retrieving” would exclude the preferred embodiments where only *some* records of open orders are retrieved.<sup>71</sup>

*Third*, Liquidnet's definition is also supported by extrinsic evidence. Liquidnet has introduced a computer dictionary published by Microsoft in 2002 that defines “access” as “[t]o gain entry to memory in order to read or write

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<sup>71</sup> Because constructions that exclude preferred embodiments render the claims and specification inconsistent, such constructions should only be adopted if supported by “highly persuasive” evidence. *Vitronics*, 90 F.3d at 1583. ITG/Pulse points to a drawing submitted during the prosecution of the patent, “which has an arrow going from a box labeled ‘[OMS] Database’ to a box labeled ‘Computer’ that is labeled . . . ‘accessing . . . all records.’” Liquidnet Br. at 33 (quoting 7/12/06 Amendment, Ex. 4R to Brenner-Leifer Decl., at 15). While the direction of this arrow does suggest that “accessing” involves the movement of records from the database to the computer, this evidence from the prosecution history is insufficient to overcome the other intrinsic evidence supporting Liquidnet's construction as well as the fact that ITG/Pulse's definition would exclude preferred embodiments.

ITG/Pulse has also directed my attention to preferred embodiments in the specification that describe the retrieval of order records from the OMS database. *See* ITG/Pulse Resp. at 18. However, Liquidnet does not dispute that the patented method contemplates the retrieval of those records. It only claims that this retrieval is not reflected by the accessing step described in the claim.

data.”<sup>72</sup> While courts are cautioned not to rely too heavily on dictionaries, the definition further supports the view that Liquidnet’s construction reflects the ordinary meaning of the term “accessing.”

Despite this intrinsic and extrinsic evidence, ITG/Pulse objects to defining the term “accessing” to mean “gaining entry to” on the grounds that Liquidnet’s construction does not make sense in the syntax of the claim language. The claim describes the patented method as “accessing . . . all records of open orders *from* a database of an order management system.” According to ITG/Pulse, “[c]omputers do not *gain entry to* records *from* a database, they *retrieve* records *from* a database.”<sup>73</sup> While it is true that applying Liquidnet’s definition to the term “accessing” results in awkward phrasing, ITG/Pulse is incorrect that Liquidnet’s construction is illogical. The preposition “from” may refer to a prepositional object of the transitive verb (*e.g.*, removing a splinter *from* your skin), but it may also refer to the location of that verb’s object (*e.g.*, meeting a man *from* China). Therefore, “accessing . . . records of open orders from a database of an order management system” can logically be read to mean that the records of the open orders are located in the OMS database without suggesting that they are

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<sup>72</sup> Entry from Microsoft Computer Dictionary, Fifth Edition, Ex. 15 to Kroub Decl., at 13.

<sup>73</sup> ITG/Pulse Resp. at 18 (emphasis in original).

being removed from that database.

Accordingly, I adopt Liquidnet’s construction of the term “accessing” to mean “gaining entry to.”

**2. “All”**

Liquidnet construes the term “all” as the “whole number or sum,”<sup>74</sup> while ITG/Pulse defines it as “each and every.”<sup>75</sup> I see little practical difference between these two constructions once the other terms in the claim are defined, and the parties have not pointed to any evidence that strongly suggests that one of these definitions is more accurate than the other. I therefore will define “all” in the most common-sense way – namely “each and every.”<sup>76</sup>

**3. “Open orders”**

ITG/Pulse proposes that the term “open orders” be construed to mean “firm orders, *i.e.*, binding purchase or sale offers that can be executed without a further affirmative action by the trader; not contemplated or completed orders.”<sup>77</sup>

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<sup>74</sup> Liquidnet Br. at 17.

<sup>75</sup> ITG/Pulse Br. at 32.

<sup>76</sup> *See Phillips*, 415 F.3d at 1314 (stating that when the ordinary meaning of claim language is apparent a district court need not consider any other source of intrinsic or extrinsic evidence to interpret that language).

<sup>77</sup> *Id.* at 23.

being removed from that database.

Accordingly, I adopt Liquidnet’s construction of the term “accessing” to mean “gaining entry to.”

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<sup>74</sup> Liquidnet Br. at 17.

<sup>75</sup> ITG/Pulse Br. at 32.

<sup>76</sup> *See Phillips*, 415 F.3d at 1314 (stating that when the ordinary meaning of the claim language is apparent a district court need not consider any other source of intrinsic or extrinsic evidence to interpret that language).

<sup>77</sup> *Id.* at 23.

Liquidnet proposes that the term should be construed to mean “instructions to buy or sell a quantity of a security not yet placed elsewhere (*i.e.*, where the total order size exceeds the quantity, if any, committed to another broker or other execution venue).”<sup>78</sup> The major distinction between the parties’ constructions is whether an order’s “open” status means that it has already been placed in another venue – besides the ETM contemplated by the patented method – for execution. ITG/Pulse argues that the “open” status of an order indicates that it has already been placed in another venue for execution but has not yet been executed.<sup>79</sup> Liquidnet, in contrast, argues that the “open” status indicates that the order has not yet been placed elsewhere for execution, and that a trader has only indicated internally to others within his or her investment firm that a quantity of a security should be bought or sold.<sup>80</sup>

While the claim language and the specification do not explicitly define the term “open orders,” these sources of intrinsic evidence most directly support Liquidnet’s definition of the term. The claim states that the OMS contains records of orders – including a field identifying “the total order size” and a field

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<sup>78</sup> Liquidnet Reply Claim Construction Brief (“Liquidnet Reply”) at 5.

<sup>79</sup> *See* ITG/Pulse Br. at 24.

<sup>80</sup> *See* Liquidnet Reply at 6.

describing the “quantity of the security placed elsewhere.”<sup>81</sup> According to the specification, in a preferred embodiment, “the ETM uses the values of these two fields to determine a quantity of the security if any, that are [sic] available to be transacted to the ETM.”<sup>82</sup> The specification, therefore, contemplates at least one embodiment of the invention wherein the term “open orders” (*i.e.*, those orders that are accessed and ultimately transmitted to the ETM) refers to the subset of orders that have not been placed elsewhere for execution. Furthermore, step (ii) of claim one states that the non-binding indications generated from the “open orders” indicate the “available quantity” of the security as “determined by the accessed records.”<sup>83</sup> This claim language in step (ii) does not require, but is consistent with, Liquidnet’s construction – as the “available quantity” described in the claim would be determined by subtracting the quantity of a security placed elsewhere from the total order size (both of which can be determined by reference to the accessed records).

ITG/Pulse, obviously, objects to this definition, and provides evidentiary support for its view. Its most persuasive, but ultimately unavailing,

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<sup>81</sup> Patent ‘834 col. 12 ll. 62-63.

<sup>82</sup> *Id.* col. 9 ll. 42-45.

<sup>83</sup> *Id.* col. 13 l. 4.

argument is that Liquidnet disclaimed its construction of the term “open orders” during its prosecution of Patent ‘834.<sup>84</sup> In late 2004, Liquidnet, in arguing that its claims were not encompassed by prior art, told the PTO that its patented method “reflect[s] a conversion from firm orders to non-binding indications; from the proverbial ‘apples’ to ‘oranges.’”<sup>85</sup> According to ITG/Pulse, this statement shows that the patented method involves the conversion of firm – *i.e.*, binding – orders to non-binding indications, and that the original orders were binding because they had already been placed in another venue for execution. This statement, however, is not sufficiently unambiguous to constitute a prosecution disclaimer.<sup>86</sup> At the time the statement was submitted to the PTO, the claim language was different than it is now and referred to “orders” rather “open orders.”<sup>87</sup> Given that the specification identifies several different order statuses (*e.g.*, open, contemplated,

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<sup>84</sup> See Tr. at 5-6 (the proper construction “open orders . . . comes down to statements that were made by Liquidnet to the patent office during the prosecution in order to obtain allowance of the claim”).

<sup>85</sup> 12/10/04 Amendment to Patent ‘834, Ex. 4L to Brenner-Leifer Decl., at 19.

<sup>86</sup> See *Elbex Video*, 508 F.3d at 1371 (stating that a prosecution disclaimer must be “clear and unmistakable” (quotation marks and citations omitted)).

<sup>87</sup> See 12/10/04 Amendment to Patent ‘834, Ex. 4L to Brenner-Leifer Decl., at 2.

completed), it is apparent from the intrinsic evidence that the term “orders” is more inclusive than the subset described as “open orders.” In addition, another portion of the prosecution history directly contrasts the patented method with a “system [in the prior art] that merely consolidates . . . bids and offers” already placed in other venues.<sup>88</sup> Accordingly, when the intrinsic evidence is considered “as a whole,” the prosecution history statement describing the conversion of firm orders to non-binding indications is too ambiguous to constitute a prosecution disclaimer.<sup>89</sup>

Of course, the fact that this statement does not rise to the level of prosecution disclaimer does not eliminate its possible relevance. District courts use prosecution history to clarify claim language even when they are not applying the prosecution disclaimer doctrine. That said, because the prosecution history reflects an ongoing negotiation between the patent applicant and the PTO, it cannot be given precedence over the specification and the claims themselves, which reflect the final agreement between the parties.<sup>90</sup> The specification and the

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<sup>88</sup> 6/6/03 Amendment to Patent ‘834, Ex. 4D to Brenner-Leifer Decl., at 13. *See also id.* (describing the patented method as “reading non-binding indications of interest, not firm orders, . . . from an order management system database”).

<sup>89</sup> *Elbex Video*, 508 F.3d at 1372.

<sup>90</sup> *See Phillips*, 415 F.3d at 1317.



claim language provide greater support to Liquidnet’s definition. Accordingly, the term “open orders” means “instructions to buy or sell a quantity of a security not yet placed elsewhere.”

**B. “Generating, by at least one computer, all non-binding indications from the accessed records of open orders suitable for transmission to at least one electronic marketplace.”**

**1. “Generating”**

The parties’ disagreement over the proper construction of the term “generating” is largely an outgrowth of their disagreement over the proper construction of the term “open orders.” ITG/Pulse construes “generating” to mean “converting firm orders to non-binding indications.”<sup>91</sup> Liquidnet construes the term to mean “producing [non-binding indications] in a format understood by the electronic marketplace.”<sup>92</sup> Because I have already rejected ITG/Pulse’s construction of “open orders” as “firm orders,” it would be illogical to adopt its construction of the term “generating.” Accordingly, I adopt ITG/Pulse’s construction of “generating” to mean “producing [non-binding indications] in a format understood by the electronic marketplace.”

However, this construction requires one caveat. The specification

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<sup>91</sup> ITG/Pulse Br. at 30.

<sup>92</sup> Liquidnet Br. at 20.

discloses that while “[i]n one embodiment, the OIM converts the data records retrieved from the OMS database into a standardized format understood by the ETM[,] [i]n another embodiment this functionality is part of the ETM.”<sup>93</sup> Thus, while the non-binding indications are always produced in a format that is understood by the ETM in the sense that the ETM is able to convert the indications into a standardized format, the specification discloses that these indications are not necessarily produced in a format that is immediately functional within the context of the ETM. In at least one embodiment, the ETM must convert the indications into such a format.

## **2. “Non-binding indications”**

Liquidnet proposes that “non-binding indications” be construed to mean “non-binding offers to buy or sell a security.”<sup>94</sup> ITG/Pulse adds a further limitation – that the non-binding purchase or sale offers “allow[] traders to enter into negotiations to trade the securities, which cannot be executed without a further, affirmative action by a trader.”<sup>95</sup> Because it is supported by the intrinsic evidence, I adopt ITG/Pulse’s construction.

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<sup>93</sup> Patent ‘834 col. 4 ll. 4-8.

<sup>94</sup> Liquidnet Br. at 22.

<sup>95</sup> ITG/Pulse Br. at 28.

The word negotiation appears throughout the specification. In one of those instances, a portion of the specification states that, “[b]ased on these indications, traders at one institution can enter into *negotiations* with traders at other institutions[.]”<sup>96</sup> Thus, according to the specification, traders use non-binding indications to enter into negotiations with one another. Moreover, during prosecution of the patent, the patent applicant confirmed this interpretation of the patented method – telling a PTO examiner, “[a]s pointed out in the specification . . . , the indications provide information to allow traders to enter into *negotiations* to ultimately trade the securities.”<sup>97</sup>

Liquidnet objects to this interpretation of the term “non-binding indications” on the ground that it requires a limitation to be read from the specification into the claim.<sup>98</sup> A district court must be careful not to read language into a patent claim without appropriate justification. Accordingly, earlier in this Opinion, I declined to construe several terms in claim one to require automation even though the specification described the patented method as occurring

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<sup>96</sup> Patent ‘834 col. 3 ll. 6-9 (emphasis added).

<sup>97</sup> 10/20/03 Amendment to Patent ‘834, Ex. 4F to Brenner-Leifer Decl., at 12 (emphasis added).

<sup>98</sup> See Liquidnet Br. at 23.

automatically.<sup>99</sup> However, the relevant distinction between those terms (*e.g.*, sending), and the term “non-binding indications,” is that the word “non-binding” is an ambiguous term that requires further clarification.<sup>100</sup> The term “non-binding” reveals that these indications alone are insufficient to constitute trader authorization, and that at least one further step must take place before a trade is executed. The specification and prosecution history make clear that this extra step is negotiation.

Accordingly, I adopt ITG/Pulse’s construction of the term “non-binding indications” to mean “non-binding purchase or sale offers that allow traders to enter into negotiation to trade securities, which cannot be executed without a further, affirmative action by a trader.” However, I emphasize that negotiation need not be an in-depth process. It can be as basic as each party assenting to the terms of the other party’s non-binding indications.

### **3. “Suitable for transmission”**

Liquidnet construes “suitable for transmission” to mean “meeting the

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<sup>99</sup> See *supra* Part IV.A.

<sup>100</sup> See *Renishaw PLC*, 158 F.3d at 1248 (“[I]t is manifest that a claim must explicitly recite a term in need of definition before a definition may enter the claim from the written description.”).

filtering criteria established by the traders and/or the electronic marketplace.”<sup>101</sup>

ITG/Pulse suggests a broader definition, construing the term to mean “appropriate for transmission.”<sup>102</sup> I adopt ITG/Pulse’s definition because suitable and appropriate are virtual synonyms.<sup>103</sup> As a result, the adopted definition is nothing more than the language of the claim, while Liquidnet’s definition attempts to inappropriately narrow the claim.

While it is apparent from the specification that the patented method will often use a filtering module to determine what data is suitable for transmission,<sup>104</sup> it is also apparent that the patented method does not always use such filtering modules. This is disclosed by a portion of the specification which

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<sup>101</sup> Liquidnet Br. at 24.

<sup>102</sup> ITG/Pulse Br. at 33.

<sup>103</sup> While it is unclear from the syntax of the sentence in which the term “suitable for transmission” appears whether the term modifies “non-binding indications” or “accessed records of orders,” a later step in the claim, which refers to “suitable non-binding indications,” clarifies that “suitable for transmission” modifies “non-binding indications.”

<sup>104</sup> See, e.g., Patent ‘834 col. 3 ll. 61-65 (“The OIM also preferably includes a filtering module for filtering out specified orders by security type, security name, order type, order price, order quantity, or other category, so that those orders are not transmitted to the ETM.”); *id.* col. 11, lines 22-27 (“In other embodiments of the present invention, the OIM, through the filtering module, makes the determination of suitable orders based on other criteria, such as the security type (e.g., stock or bond), security name (e.g., IBM or T), order type (e.g., market or limit order), order quantity, and/or order price.”).

describes two embodiments of the patented method – one where “all open orders are suitable for transmission” and another where a “filtering module” is used to determine what orders are suitable for transmission.<sup>105</sup> As ITG/Pulse argues, “Liquidnet’s construction of ‘suitable for transmission’ accounts for the second embodiment but ignores the first.”<sup>106</sup> Accordingly, it is inappropriate to limit the term “suitable for transmission” to the use of filtering criteria.

Instead, I adopt ITG/Pulse’s broader construction of the term. While substituting the word appropriate for the word suitable does little to clarify the meaning of this term, the evidence does not permit a more exacting definition. The patented claim encompasses any means for determining whether a non-binding indication is appropriate for transmission – including the use of a filtering module or simply allowing all non-binding indications generated from records of open orders to be transmitted.

#### **4. “Electronic Marketplace”**

Liquidnet defines “electronic marketplace” broadly as “any combination of computer hardware and/or software for receiving and processing, for potential execution, data representative of orders received from an OMS

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<sup>105</sup> Patent ‘834 col. 11 ll. 18-27.

<sup>106</sup> ITG/Pulse Resp. at 20.

database.”<sup>107</sup> ITG/Pulse proposes a narrow definition that defines the term as “an electronic destination where non-binding indications are matched and negotiated.”<sup>108</sup> Because the intrinsic evidence supports elements found in both definitions, I construe “electronic marketplace” to have a different meaning than that provided by either of the parties. An “electronic marketplace” is an electronic destination that (1) receives and processes non-binding indications, (2) allows for the matching of non-binding indications with their contra interests and for the negotiation and execution of trades, and (3) has the capacity to record trades if and when they are executed.

Each element of this definition is supported by intrinsic evidence. The specification states: that “[t]he ETM includes an OMS data integration module (ODIM) for receiving and processing data representative of orders received from the OIMs”;<sup>109</sup> that “[t]raders can communicate with the ETM to anonymously *negotiate* trades of securities”;<sup>110</sup> and that “[a] transaction history module records transactions performed by the ETM in the ETM database.”<sup>111</sup> As

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<sup>107</sup> Liquidnet Br. at 25.

<sup>108</sup> ITG/Pulse Br. at 20.

<sup>109</sup> Patent ‘834 col. 2 ll. 61-63.

<sup>110</sup> *Id.* col. 2 ll. 52-53 (emphasis added).

<sup>111</sup> *Id.* col. 3 ll. 13-15.

for the capacity to allow matching, claim two contemplates the “matching [of] at least one non-binding indication sent to the electronic marketplace with a contra interest[.]”<sup>112</sup> Because claim two expressly adds this limitation to the method described in claim one,<sup>113</sup> claim two evidences that the ETM described in claim one has the capacity to match non-binding indications.

Within the securities trading context, the term “electronic marketplace” suggests an electronic destination where trades are executed. The specification clarifies how these trades occur: the ETM receives and processes non-binding indications; it allows for the matching of non-binding indications and for the negotiation and execution of trades; and it records those trades if and when executed.

Liquidnet objects to the incorporation of a “negotiation requirement” in this definition on the grounds that the specification “discloses a host of other modules and features that may optionally be incorporated into the electronic marketplace, and the negotiations module is not described as being any more

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<sup>112</sup> *Id.* col. 13 ll. 16-18.

<sup>113</sup> *See id.* col. 13 ll. 16-19 (beginning claim two by incorporating “[t]he method of claim 1” and then adding the “further” limitation of “matching at least one non-binding indication sent to the electronic marketplace with a contra interest and providing an indication of the match”). In the vernacular of patent law, claim two is dependent on claim one.



fundamental to the operation of the electronic marketplace than any of these features.”<sup>114</sup> However, the sections of the specification that I have cited are from the “Disclosure of the Invention” section of the patent. The other modules mentioned by Liquidnet are either from the “Detailed Description of the Preferred Embodiments” section, which expressly states that “the present invention can lack one or more of the modules described herein,”<sup>115</sup> or are described as *preferable* aspects of the invention.<sup>116</sup> Thus, the specification’s disclosure of the patented method’s negotiation aspect is properly distinguished from these other possible aspects of the patented method.

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<sup>114</sup> Liquidnet Reply at 18.

<sup>115</sup> Patent ‘834 col. 6 ll.62-63. Liquidnet suggests that this statement within the “Detailed Descriptions of the Preferred Embodiments” section means that all modules described throughout the entire specification are not required elements of the patented method. *See* Liquidnet Reply at 17. However, it is far from obvious that this statement applies to the entire specification. Moreover, the main aspect of my construction to which Liquidnet objects is the inclusion of language referring to negotiation. The specification does not just say that the claimed method includes a negotiation module. It flatly states that “[t]raders can communicate with the ETM to anonymously *negotiate* traders of securities.” Patent ‘834 col. 2 ll. 52-53 (emphasis added).

<sup>116</sup> *See, e.g.*, Patent ‘834 col. 3 ll.15-18 (“The transaction history module also *preferably* records other data processed by the ETM including, for example, the orders received from and sent to the trading systems and the conducted negotiations.” (emphasis added)).

Liquidnet has one other objection that must be addressed.<sup>117</sup> It asserts that ITG/Pulse’s construction is precluded by the claim differentiation doctrine because “dependent claim 2 of the ‘834 Patent depends directly from claim 1 and adds the additional step of ‘matching at least one non-binding indication sent to the electronic marketplace with a contra interest and providing an indication of the match.’”<sup>118</sup> While claim two is dependent on claim one – and this is an appropriate context to apply the claim differentiation doctrine –<sup>119</sup> Liquidnet’s argument fails. My construction only states that the “electronic marketplace” *allows* for the matching of non-binding indications; it does not require that an instance of such matching must *occur*.

Accordingly, I construe the term “electronic marketplace” to mean “an electronic destination that (1) receives and processes non-binding indications, (2) allows for the matching of non-binding indications with their contra interests and for the negotiation and execution of trades, and (3) has the capacity to record

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<sup>117</sup> Liquidnet also points to evidence in the prosecution history suggesting that an “electronic marketplace” does not have to allow for negotiation. *See* Liquidnet Reply at 19. However, this evidence is insufficient to overcome statements in the specification showing that the *capacity to permit negotiation* is a necessary feature of an “electronic marketplace” as the term is used in claim one of Patent ‘834.

<sup>118</sup> Liquidnet Br. at 27 (quoting Patent ‘834 col. 13 ll. 16-19).

<sup>119</sup> *See Curtiss-Wright Flow Control Corp.*, 438 F.3d at 1380.

trades if and when they are executed.”

**C. “Sending”; “Periodically determining”; “Subsequently generating”; “Subsequently sending”**

The parties have also asked the Court to define the following terms: “sending”; “periodically determining”; “subsequently generating”; and “subsequently sending.” Because the only meaningful distinction between the definitions of these terms proposed by the parties relates to whether I should include the words “automatic” or “without manual intervention,” no further analysis is needed to construe these terms.<sup>120</sup>

Apart from the automation issue, the parties agree: that “sending” means “transmitting”;<sup>121</sup> that “subsequently sending” means “subsequently transmitting”;<sup>122</sup> and that “periodically determining” means “determining from time to time.”<sup>123</sup> I have already construed “generating” to mean “producing,”<sup>124</sup>

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<sup>120</sup> See *supra* Part IV.A.

<sup>121</sup> Compare Liquidnet Br. at 27 (“automatically *transmitting*, without manual intervention” (emphasis added)) with ITG/Pulse Br. at 35 (“transmitting”).

<sup>122</sup> Compare Liquidnet Br. at 30 (“*subsequently transmitting*, without manual intervention” (emphasis added)) with ITG/Pulse Br. at 45 (“subsequently transmitting”)

<sup>123</sup> Compare Liquidnet Br. (“automatically determining, *from time to time*, without manual intervention” (emphasis added)) with ITG/Pulse Br. at 45 (“recurring *from time to time*” (emphasis added)).

<sup>124</sup> See *supra* Part IV.B.1.

and neither party suggests an alternative definition for the word “subsequently.” Therefore, I construe the term “subsequently generating” to mean “subsequently producing.”

## V. CONCLUSION

For the aforementioned reasons I construe the disputed terms within claim one as follows:

“Accessing” means “gaining entry to.”

“All” means “each and every.”

“Open orders” means “instructions to buy or sell a quantity of a security not yet placed elsewhere (*i.e.*, where the total order size exceeds the quantity, if any, committed to another broker or other execution venue).”

“Generating” means “producing non-binding indications in a format understood by the electronic marketplace.”

“Non-binding indications” meanings “non-binding purchase or sale offers that allow traders to enter into negotiation to trade securities, which cannot be executed without a further, affirmative action by a trader.”

“Suitable for transmission” means “appropriate for transmission.”

“Electronic marketplace” means “an electronic destination that (1) receives and processes non-binding indications, (2) allows for the matching of

non-binding indications with their contra interests and for the negotiation and execution of trades, and (3) has the capacity to record trades if and when they are executed.”

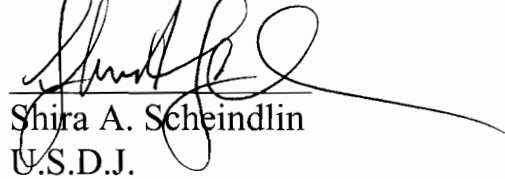
“Sending” means “transmitting.”

“Periodically determining” means “determining from time to time.”

“Subsequently generating” means “subsequently producing.”

“Subsequently sending” means “subsequently transmitting.”

SO ORDERED:



Shira A. Scheindlin  
U.S.D.J.

Dated: New York, New York  
January 19, 2010

**- Appearances -**

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