

# ATS-N/UA: Part II: Activities of the Broker-Dealer Operator and its Affiliates

## Item 2: Affiliates Trading Activities on the ATS

a. Are Affiliates of the Broker-Dealer Operator permitted to enter or direct the entry of orders and trading interest into the NMS Stock ATS?	<input checked="" type="radio"/> Yes <input type="radio"/> No
If yes, name and describe each type of Affiliate that enters or directs the entry of orders and trading interest into the ATS (e.g., broker-dealer, NMS Stock ATS, investment company, hedge fund, market maker, principal trading firm), and, for each Affiliate, provide the applicable MPID and list the capacity of its orders and trading interest (e.g., principal, agency, riskless principal).	<p>FMR Sakura Holdings LLC ("FMR Sakura") owns a <u>minority</u> <del>majority</del> stake in <u>Titan Parent Company, LLC ("Titan")</u>. <u>Luminex Trading &amp; Analytics LLC ("Luminex" or the "Firm") is a wholly owned subsidiary of Titan and is the only operating subsidiary of Titan. Fidelity Global Brokerage Group, Inc. ("FGBG") owns a separate, smaller stake in Titan. FMR Sakura and FGBG are a wholly owned subsidiaries of FMR LLC, which operates a number of businesses under the trade name Fidelity Investments ("Fidelity"). By virtue of FMR Sakura's and FGBG's stakes in Titan, both FMR Sakura and FGBG are indirect affiliates of Luminex.</u></p> <p>Fidelity's asset management entity - Fidelity Management &amp; Research Company ("FMR Co.") - is a Subscriber to the Luminex ATS (the "<u>Luminex</u> ATS" or the "System"). In that regard, FMR Co. enters trading interest and orders and executes transactions on the System and has no special access to or privileges in the System beyond what any other Luminex <u>ATS</u> Subscriber can have. FMR Co. is not a broker-dealer and does not have an MPID. The orders and trading interest entered by FMR Co. into the System are in an agency capacity.</p>
b. If yes, to Item 2(a), are the services that the NMS Stock ATS offers and provides to the Affiliates required to be identified in Item 2(a) the same for all Subscribers?	<input checked="" type="radio"/> Yes <input type="radio"/> No
c. Are there any formal or informal arrangements with an Affiliate required	<input type="radio"/> Yes <input checked="" type="radio"/> No

to be identified in Item 2(a) to provide orders or trading interest to the NMS Stock ATS (e.g., undertaking to buy or sell continuously, or to meet specified thresholds of trading or quoting activity)?

d. Can orders and trading interest in the NMS Stock ATS be routed to a Trading Center operated or controlled by an Affiliate of the Broker-Dealer Operator?

☐ Yes ☒ No

**Item 5: Other Products and Services**

a. Does the Broker-Dealer Operator offer Subscribers any products or services for the purpose of effecting transactions or submitting, disseminating, or displaying orders and trading interest in the NMS Stock ATS (e.g., algorithmic trading products that send orders to the ATS, order management or order execution systems, data feeds regarding orders and trading interest in, or executions occurring on, the ATS)?

☒ Yes ☐ No

If yes, identify the products or services offered, provide a summary of the terms and conditions for use, and list here the

The only such product or service that Luminex offers System Subscribers is a user interface (the "Luminex UI"). While virtually all System Subscribers use an external OMS, EMS, or order router to send orders and trading interest to the Luminex ATS, the Luminex UI is offered to all Subscribers. Subscribers can manage orders and trading interest via the Luminex UI and can also

applicable Item number in Part III of this form where the use of the product or service is explained. If there is no applicable Item in Part III, explain the use of the product or service with the ATS here.

b. If yes to Item 5(a), are the terms and conditions of the services or products required to be identified in Item 5(a) the same for all Subscribers and the Broker-Dealer Operator?

☒ Yes ☐ No

c. Does any Affiliate of the Broker-Dealer Operator offer Subscribers, the Broker-Dealer Operator, or both, any products or services for the purpose of effecting transactions or submitting, disseminating, or displaying orders or trading interest in the NMS Stock ATS?

☒ Yes ☐ No

If yes, identify the products or services offered, provide a summary of the terms and conditions for use, and list here the applicable Item number in Part III of this form where the use of the product or service is explained. If there is no applicable item in Part III, explain the use of the product or service with the ATS here.

monitor executions in the [Luminex](#) ATS via the Luminex UI, even if those orders or trading interest were submitted to the [Luminex](#) ATS via an OMS, EMS, or router. While the Luminex UI is made available to all Luminex Subscribers, not all Luminex Subscribers use the Luminex UI. Orders and trading interest cannot be entered via the Luminex UI, and the use of the Luminex UI provides no speed advantage versus other means of order or trading interest management. Trade advertising (symbol only) from the previous trade date ("T-1") is made available to "opt-in" Subscribers via the Luminex UI on each trade date ("T"). Please see also Part II Item 7(b). In addition, trade advertising (symbol only) from the current trade date (T) is made available to all Subscribers via the Luminex UI unless a Subscriber opts out of receiving such advertising. Subscribers may contact Luminex [ATS](#) Sales either via phone or electronically to opt out of this real-time advertising.

Fidelity offers a routing tool to institutional customers called Fidelity Service Bureau ("FSB"), which is operated by a non-broker-dealer Fidelity entity. Certain System Subscribers' traders, including but not limited to those of FMR Co., use FSB to route orders and trading interest to the System for handling and execution. As it does with other order entry systems, Luminex pays FSB a monthly fee for connectivity of the Subscribers and traders that use FSB to access the System. The Firm understands that FSB was not designed specifically for use with the System and can be used to reach other venues or trading destinations in addition to the System. Luminex is not a party to any agreements between Subscribers and FSB, and users of FSB are not treated any differently in the [Luminex](#) ATS than non-users of FSB. Please see Part III Item 5(c).

d. If yes to Item 5(c), are the terms and conditions of the services or products required to be identified in Item 5(c) the same for all Subscribers and the Broker-Dealer Operator?

☐ Yes ☒ No

If no, identify and explain any differences.

Luminex is unaware of the terms and conditions of the use of FSB for any particular Subscriber. Luminex pays the Fidelity unit that provides the FSB service several types of fees on a monthly basis. One monthly fee is based on the rate the Luminex [ATS](#) Subscriber pays to Luminex per executed share. These types of fees can vary by Subscriber and are not capped. Another monthly fee is a flat rate per Subscriber FSB connection to the System. For this fee, after the number of Subscribers reaches a certain threshold, Fidelity caps the total fee paid by Luminex at a maximum amount per month, regardless of how many additional traders use FSB. Some Subscribers add FSB costs to the commissions paid to Luminex at their discretion. Luminex does not enter orders or trading interest into the [Luminex](#) ATS, via FSB or otherwise.

**Item 6: Activities of Service Providers**

a. Does any employee of the Broker-Dealer Operator or its Affiliate that services both the operations of the NMS Stock ATS and any other business unit or any Affiliate of the Broker-Dealer Operator ("shared employee") have access to confidential trading information on the NMS Stock ATS?

☒ Yes ☐ No

If yes, identify the business unit, Affiliate, or both that the shared employee services, and provide a summary of the role and responsibilities of the shared employee at the ATS and the business

[Luminex is the operator of the Luminex ATS. In addition to providing technology support and development for the Luminex ATS, certain staff from Titan, Luminex's parent, also provide technology support and development in connection with the operation of the Level ATS. In that regard, these staff have access to confidential trading information for both the Level ATS and the Luminex ATS.](#)

[Personnel in Titan's technology and operations departments who are responsible for the technology development and day-to-day operation of the Level ATS and the Luminex ATS \(collectively "Technology and Operations Personnel"\), including technology](#)

unit, Affiliate, or both that the shared employee services.

maintenance, support, and regulatory reporting services, may have access to confidential trading information on the Level ATS and on the Luminex ATS. This includes information regarding open trading interest and recent execution and cancellation information. As described more fully in Item 7(d), members of Luminex Compliance and Legal staff, who support both the Level ATS and the Luminex ATS, may obtain access to confidential trading information of both ATSs to respond to regulatory inquiries, among other responsibilities.

Pursuant to a fully-disclosed clearing agreement between Luminex and National Financial Services LLC ("NFS"), a Fidelity-related entity, NFS clears and settles all transactions executed on the System. Please see Part III Item 22. Additionally, NFS maintains a proprietary account on behalf of Luminex and provides Luminex order-routing and execution services. This account is solely used by Luminex to effect proprietary transactions in connection with bona fide errors and occasional and infrequent accommodations. All such proprietary transactions are effected on market centers other than the System.

Luminex is an indirect affiliate of Nasdaq, Inc. ("Nasdaq") and its subsidiaries (collectively with Nasdaq, excluding Luminex, the "Nasdaq Entities") by virtue of Nasdaq's investment stake in Titan, Luminex's parent. While Luminex is an affiliate of Nasdaq, no employee of any Nasdaq entity ("Nasdaq Personnel") is involved in the operation of the Luminex ATS. Further, no employee of Luminex is separately an employee of any Nasdaq Entity, nor is any employee of Luminex involved in the operation of any national securities exchanges operated by a Nasdaq Entity (the "Nasdaq Securities Exchanges").

As noted below, Nasdaq services the operations of the FINRA/Nasdaq TRF Carteret, and the Nasdaq Securities Exchanges are participants in the committees that operate each Securities Information Processor ("SIP") feed. Luminex reports transactions effected in the Luminex ATS to the FINRA/Nasdaq TRF Carteret and utilizes market data disseminated by the SIP feed in determining the relevant NBBO for each transaction effected in the Luminex ATS.

b. Does any entity, other than the Broker-Dealer Operator, support the services or functionalities of the NMS Stock ATS ("service provider") that are required to be explained in Part III of this form?

☒ Yes ☐ No

If yes, both identify the service provider and provide a summary of the role and responsibilities of the service provider in response to the applicable Item number in Part III of this form, as required. List

~~Technology support services for the overall operations of the ATS are provided by a division of eBX LLC ("eBX"). A limited number of eBX employees have access to confidential trading information as part of their duties to support the operations of the ATS, as described in Part II Item 7(d). While the System is housed and operated on Luminex servers and equipment, the Firm has engaged eBX, pursuant to a services agreement that restricts eBX's use of information obtained in providing operational and technological support to Luminex and provides substantial procedures to ensure security of Subscriber information, to provide technology~~

the applicable Item number here. If there are services or functionalities that are not applicable to Part III, identify the service provider, the services and functionalities, and also provide a summary of the role and responsibilities of the service provider here.

c. If yes to Item 6(b), does the service provider, or any of its Affiliates, use the NMS Stock ATS services?

If yes, identify the service provider, or the Affiliate as applicable, and the ATS services that the service provider or its Affiliates use.

d. If yes to Item 6(c), are the services that the NMS Stock ATS offers and provides to the entity required to be identified in Item 6(c) the same for all Subscribers?

~~resources and personnel to manage the technology suite and implementation of system changes.~~ Data center facilities are leased from Equinix Inc. in Secaucus, NJ (NY4). The Firm licenses a FIX engine from Itiviti Group AB (f/k/a CameronTec Group). The FIX engine provides connectivity with Subscribers' order-originating systems and transformation of FIX messages to/from internal data structures. The System receives market data from Options-IT (see also Part III Item 23 below), a vendor that handles market data feeds from various market data providers and is also the Firm's managed security services provider. Please see Part III Item 11 for more information on the operations of the System.

All transactions effected on the Luminex ATS are reported to the FINRA/Nasdaq TRF Carteret. See Part III Item 21 for additional information.

☒ Yes ☐ No

FMR Co., a Fidelity subsidiary and an affiliate of NFS (which clears and settles trades effected on the System), is a System Subscriber. ~~eBX-NFS~~ does not use the Luminex ATS, nor does any other service provider.

☒ Yes ☐ No

## Item 7: Protection of Confidential Trading Information

a. Describe the written safeguards and written procedures to protect the confidential trading information of Subscribers to the NMS Stock ATS, including:

Luminex deems client-specific trading interest, order, and trade data to be "Confidential Trading Information" in the context of this question. Pursuant to SEC Rule 301(b)(10) and other regulatory requirements, Luminex has critical physical and logical access controls to reasonably ensure that access to Confidential Trading Information of Subscribers is appropriately restricted to only those who need such access to support the System. The controls and related restrictions apply ~~both to~~ Luminex or Titan employees ~~and those of eBX~~ that support the System (collectively, "~~System support staff~~Technology and Operations Personnel"). With respect to physical access controls, Luminex offices are locked at all times and are inaccessible to the public at all times.

i. written standards controlling employees of the ATS that trade for employees' accounts; and

ii. written oversight procedures to ensure that the safeguards and procedures described above are implemented and followed.

Luminex maintains three offices: its corporate headquarters (the “Main Office”) in Boston, Massachusetts which houses certain Luminex management and staff that support the Level ATS; a second Boston office (the “Luminex ATS office”) which houses certain other Luminex management and staff that support the Luminex ATS; and, an office in Charleston, South Carolina (the “Charleston office”) that houses Luminex employees in technical roles, including Technology and Operations Personnel that support both the Luminex ATS and the Level ATS. Access to the Luminex office spaces is permitted for Luminex employees and a limited number of building management, building security, and other related staff. While Luminex management may have access to enter any Luminex office, Luminex employees that only support the Luminex ATS do not have access to the Main office or the Charleston office. Similarly, Luminex employees that only support the Level ATS do not have access to the Luminex ATS office where Luminex ATS-supporting employees work. Physical access is controlled via enabled swipe cards, which must be approved by the Luminex Chief Information Security Officer (CISO) or an approved delegate. The Luminex CISO regularly reviews reports to determine who accessed Luminex space to ensure that the documented access to Luminex office space was limited to authorized individuals and also regularly reviews the list of persons authorized to have access to the Firm's office space in order to reasonably ensure that only appropriate persons have access to the Firm's office space. The data center that supports the System is also equipped with multiple levels of security in order to reasonably ensure that access is limited to appropriately authorized individuals. It is important to note that even though a person may have physical access to Luminex office space, access to Confidential Trading Information is strictly controlled through the processes described immediately below.

Luminex uses a privileged access system as an access control with respect to Luminex systems, applications, and accounts and any Confidential Trading Information contained therein. Such information with respect to the Luminex ATS is maintained on separate servers and in separate databases from such information with respect to the Level ATS. The privileged access system for the Luminex ATS is managed on the Firm's behalf by its information security vendor, Options-IT (formerly Fixnetix Ltd.). Please see the Form ATS-N for the Level ATS for a description of the applicable controls and procedures for that system. Options-IT enables and disables accounts for applicable ~~System support~~Technology and Operations Personnel staff solely based upon instruction from the Luminex CISO or approved delegate. In addition, even those granted access can only access the information needed to perform their specific job functions. Access and entitlements are generally assigned to particular access groups, and thus access to Confidential Trading Information is limited to those groups that perform support functions that require access to systems that may contain Subscriber Confidential Trading Information. Please see Part II Item 7(d). Those not in such groups do not have access to Confidential Trading Information. Luminex performs a periodic review of all ~~System support staff~~Technology and Operations Personnel with access to systems containing Confidential Trading Information to ensure that access to systems that may contain Subscriber Confidential Trading Information is strictly limited to only those ~~System support staff~~Technology and Operations Personnel who need it in order to perform their job functions. As described in Part II Item 6(a), certain Technology and Operations Personnel have access to Confidential Trading Information for both the Luminex ATS and the Level ATS. Luminex policy prohibits personnel with access to Subscriber Confidential Trading Information from sharing such information with personnel not authorized to receive such information and from otherwise using such information for any purpose other than supporting the operations of the Luminex ATS or its compliance with applicable rules and regulations. Specifically, Technology



and Operations Personnel as well as Legal and Compliance staff are prohibited from using confidential trading information from the Luminex ATS in any way relating to their support and operations of the Level ATS. Luminex policy prohibits Technology and Operations Personnel and Legal and Compliance staff from sharing Luminex ATS Subscriber Confidential Trading Information with other Luminex personnel or Nasdaq Personnel.

Luminex has ~~also engaged its cybersecurity vendor~~, Options-IT, to perform regular vulnerability scanning and penetration testing assessments as part of the Firm's efforts to appropriately safeguard client Confidential Trading Information on the Luminex ATS. Among other protections, the Firm employs firewall and intrusion prevention and detection systems to further protect such Confidential Trading Information.

Luminex also utilizes several data loss prevention measures in an effort to reasonably ensure that Confidential Trading Information is not inappropriately taken from Luminex systems. These measures include the blocking of Luminex employee access to on-line file sharing sites (including, but not limited to, Dropbox and other similar sites) and the disabling of write capabilities of USB drives on Luminex PCs and laptops so that Confidential Trading Information may not be copied onto portable storage devices. The Luminex CISO may permit the temporary availability of a file sharing site to enable Luminex operations staff to provide a specific Subscriber with application-related files, after which the file sharing site is once again blocked from availability. The Firm blocks access to social media sites from web browsers on Firm PCs and laptops, and the Firm also blocks access to internet-based webmail programs. In addition, Luminex captures and monitors all employee electronic communications through Firm accounts to reasonably ensure that employees are not inappropriately transmitting Confidential Trading Information outside of the Firm via email, text message, or other means of Firm-provided electronic communication. Electronic communications via Firm accounts are regularly reviewed by Compliance and management to ensure compliance with Firm policies. Firm employees are regularly trained on appropriate treatment of Confidential Trading Information, and related policies and procedures are also contained in the Firm's Written Supervisory Procedures document, which is required to be read and attested to by all Firm employees twice annually. ~~There are confidentiality provisions within the written support agreements between Luminex and eBX that require those eBX employees to safeguard any System information that they may have access to as part of supporting the System.~~

In addition, all ~~System support staff~~ Technology and Operations Personnel are subject to trading restrictions to ensure that such persons' trading activities do not conflict with the interests of System Subscribers. Luminex does not have any individual or retail customer accounts, including employee accounts. As such, Luminex employee trading accounts must be opened and maintained at other broker-dealers, upon approval by the Luminex Chief Compliance Officer (CCO). Luminex employees are required to disclose to Compliance all outside brokerage accounts, and duplicate trade confirmations and account statements are required to be provided to Compliance for all Luminex employee-related accounts held outside the Firm. Luminex Compliance reviews all employee trade confirmations and account statements received for indications of potential misuse of Subscriber Confidential Trading Information. Certain trading restrictions, such as Compliance pre-approvals and mandatory hold periods, are in place for less liquid securities (generally, non-large cap securities). Exceptions to these restrictions must be approved in advance by



Compliance, and the approval and hold period requirements do not apply to employee accounts which are managed by an advisor (human or automated) that has full investment discretion while the employee has none. Except as described below, System support staff from Luminex with access to Confidential Trading Information are prohibited from purchasing any individual (non-ETF) NMS equity securities and options linked to individual NMS equity securities, regardless of whether there are pending or recent orders or trades in those securities in the System. (Trading of ETFs is permitted under the Firm's employee trading policy.) Sales of individual (non-ETF) NMS equity securities, for those System support staff from Luminex who had preexisting positions prior to joining the Firm or beginning to support the System, are permitted with the advance permission of the Luminex CCO. The Luminex CCO will review the intended sale transaction versus the System's current and recent order and trade activity in the particular security. If the security that the System support staff person wishes to sell is either currently active in the System or has recently traded in the System, approval for the proposed trade will be denied. There are exceptions to these prohibitions if the System support staff person's accounts are managed by an advisor (human or automated) that has full investment discretion while the System support staff person has none. Whether the account is managed by the employee or by an outside advisor, Luminex employees must still disclose such accounts to Compliance and provide duplicate copies of account statements and trade confirmations to Compliance. Luminex employees must also comply with other trading-related Firm policies such as, but not limited to, its Insider Trading policy. System support staff from eBX are subject to and bound by eBX corporate policies that govern the handling of confidential information and policies that prohibit employees from placing trades based on nonpublic information. Any trading activity by System support staff from eBX is reviewed by that firm's Chief Compliance Officer to reasonably ensure compliance with eBX policies. In addition, duplicate trading confirmations and account statements from the eBX support staff who have access to System confidential trading information are provided to and reviewed by the Luminex CCO to reasonably ensure that any trading does not appear to be related to or based upon Luminex Confidential Trading Information.

#### AFFILIATION WITH NASDAQ

Nasdaq owns a minority interest in Luminex's parent company, Titan. Luminex and Nasdaq each have information barriers, controls and related policies that prohibit the sharing of non-public confidential trading information between Luminex and the Nasdaq Entities (including, for clarity, the sharing of Luminex ATS Subscriber Confidential Trading Information with any Nasdaq Entity, and the sharing of any non-public trading information of any Nasdaq Securities Exchange with Luminex). Further, Luminex personnel and Nasdaq Personnel are subject to policies and procedures that are designed to preserve the independent governance and operation of the Luminex ATS and the Nasdaq Securities Exchanges.

The Nasdaq Securities Exchanges and the Luminex ATS utilize wholly separate technology and systems. Nasdaq Personnel do not have access to Luminex ATS systems, and Luminex personnel do not have access to the systems used in the operation of the Nasdaq Securities Exchanges. Luminex does not share any office space with any Nasdaq Entity. Luminex policies and procedures treat Nasdaq Personnel in the same manner as personnel of any unaffiliated third-party. Accordingly, Nasdaq Personnel are

restricted from accessing Luminex premises and systems, and from obtaining order, execution and other system data relating to Luminex’s ATS operations.

b. Can a Subscriber consent to the disclosure of its confidential trading information to any Person (not including those employees of the NMS Stock ATS who are operating the system or responsible for its compliance with applicable rules)?

☒ Yes ☐ No

If yes, explain how and under what conditions.

While Subscribers are able to do so, Luminex is unaware of such consent being sought or given, aside from information provided to entities such as custody banks, prime brokers, or other entities related to clearance and settlement of transactions. Confidential Trading Information is kept confidential (meaning, in this specific case, not disclosed outside the Firm to anyone who is not otherwise supporting the System) up until the time the transaction is cleared and settled, which involves NFS, Luminex's clearing firm for the Luminex ATS, and the other external parties referenced immediately above. For example, on trade date, a Subscriber will submit instructions electronically designating to which subaccount shares purchased or sold through the Subscriber's master trading account should be allocated, designating that specific share amounts from the block execution be settled in specific subaccounts (typically in the name of mutual funds or similar funds on whose behalf the Subscriber is purchasing or selling securities). Depending on the method of clearance and settlement, details of the share purchase or sale will be made available to NFS and to other entities involved in the clearance and settlement of the Subscriber's transaction. Please see Part III Item 22 below. Any other consents to the disclosure of its own Confidential Trading Information must be made in writing, including but not limited to email, to Luminex ATS Sales or other appropriate Luminex employees.

On a next day basis (meaning, on the trade date after the previous trade date), Luminex informs "opt-in" Subscribers of the securities that traded in the System on the prior trading day. In this context, "opt-in" means a Subscriber who wishes to receive these notifications, which are displayed in the Luminex UI. In exchange for being able to view these notifications in the Luminex UI, an "opt-in" Subscriber must be willing to allow the securities that they traded in the System to be included in the notifications. For example, if two "opt-in" Subscribers matched and executed a trade in the System in security "XYZ," then XYZ would be listed in the trade advertisement that is displayed to "opt-in" Subscribers the following trading day. If an "opt-in" Subscriber matched and executed a trade in the System with a "non-opt-in" Subscriber in XYZ, then XYZ would not be listed in the trade advertisement that is displayed to "opt-in" Subscribers the following trading day, unless there was a separate transaction in that same security involving two "opt-in" Subscribers. The parties associated with any trade in the System are not identified in any of these trade advertisements, nor are the specific terms and conditions of any transaction. The trade advertisements solely list the securities

that traded in the System, provided that both parties to the transaction or transactions in that security were "opt-in" Subscribers. "Opt-in" participation in the trade advertising program is at the broader Subscriber level and not at the trader level. This means that if a Subscriber opts in to trade advertisements, then no trades by any of its traders could be excluded from the trade advertisements if an "opt-in" Subscriber was on the other side of that transaction. As noted in Part II, Item 5, trade advertising (symbol only) from the current trade date ("T") is made available to all Subscribers via the Luminex UI unless a Subscriber opts out of receiving such advertising. Subscribers may contact Luminex [ATS](#) Sales either via phone or electronically to opt out of this real-time advertising. As with the next day trade advertising, for a symbol to be advertised via the real-time advertising on T, the System must have had an execution in that symbol on T between two opt-in Subscribers. If a Subscriber opts out of receiving real-time trade advertising, then that Subscriber's trades are not included among those which may be subject to real-time trade advertising.

c. If yes to Item 7(b), can a Subscriber withdraw consent to the disclosure of its confidential trading information to any Person (not including those employees of the NMS Stock ATS who are operating the system or responsible for its compliance with applicable rules)?

☒ Yes ☐ No

If yes, explain how and under what conditions.

To the extent that a Subscriber provides such consent, which as noted in Part II Item 7(b) above must be provided in writing, such consent could similarly be withdrawn, again in writing.

d. Provide a summary of the roles and responsibilities of any Persons that have access to confidential trading information, the confidential trading information that is accessible by them, and the basis for the access.

As noted in Part II Item 7(b) above, certain Technology and Operations Personnel (who also support the Level ATS), due to their involvement in operating the Luminex ATS, have the ability to directly access and view open order interest in the Luminex ATS. This includes (i) personnel who support the ATS's network operations, (ii) personnel who support the ATS's software development, and (iii) members of Luminex ATS's operations support desk who provide "customer support" services.

Technology and Operations Personnel involved in operating the Luminex ATS may access both live order information and execution data across Subscribers, including the identity of the Subscriber that submitted an order and the parties to a transaction. Such Technology and Operations Personnel may also support the Level ATS, further discussed at Part II Item 6 above.

Members of Luminex's Compliance and Legal departments that support both the Luminex ATS and the Level ATS may review Subscriber Confidential Trading Information in connection with responding to regulatory inquiries, customer inquiries, addressing compliance issues and other similar issues.

~~Access to Confidential Trading Information is limited to those persons who either operate or support the operations of the ATS or are responsible for its compliance with applicable rules. A limited number of persons that support the ATS or who provide trading support to System Subscribers have access to such information. In addition to the Luminex staff noted here, outside technology support personnel from eBX with server-level access or access to System-related databases may have access to Subscriber Confidential Trading Information. The roles and responsibilities of such persons include those who support the System's operations and support software development with respect to the System, in addition to the Luminex Operations desk that provides functional and operational support of the System to Subscribers. As described in Part II Item 7(a) above, access to systems, servers, and databases that may contain Confidential Trading Information is reviewed on a regular basis to ensure that access is limited to only those who require such access to perform their jobs and is removed promptly when no longer needed.~~

Luminex employees that support the Luminex ATS have access to certain real-time Subscriber information via an internal tool called the Sales Dashboard. As described below, the information available on the Sales Dashboard includes, on a pre-match basis, the Subscriber and trader who entered an order or trading interest into the System, the price (for limit orders) and size of such order, and the time the order was entered. For all Sales Dashboard users other than the Luminex Operations team, on a pre-match basis the tickers or stock symbols associated with live orders or trading interest in the System are masked in order to protect the confidential nature of such information. Other terms and conditions of the order or trading interest available on the Sales Dashboard include the entered Top Quantity, the entered MinQ and AutoEx, if applicable, whether the order or trading interest was to buy, to sell, or sell short, the market capitalization segment of the security (Large Cap, Mid Cap, or Small Cap), which sector the security belongs to (e.g., Healthcare, Utilities, etc.), and various System individual security and aggregate trading statistics. A significant amount of the information available in the Sales Dashboard is not Confidential Trading Information but is instead non-Subscriber-specific or non-security-specific System data. Once a match occurs in the System, the real symbol relating to that match becomes available in order to allow the Luminex ATS Sales team to respond to trader inquiries with respect to the match, to contact traders who may have fallen down on a match (See Part III Item 13), and to provide similar post-match trader support functions. The Sales Dashboard also includes post-match information including the executed quantity and execution price for those matches that result in an execution in the System. The Luminex CCO, who supports both the Luminex ATS and the Level ATS, has similar access to post-match Subscriber information in order to respond to regulatory inquiries as necessary. Other Luminex staff that support the Luminex ATS have access to the Sales Dashboard for the purpose of monitoring the overall activity in the System. As described in Part II Item 7(a) above, all Luminex employees ~~and eBX staff~~ that support the System are subject to appropriate confidentiality commitments and to restrictive employee trading policies in order to reasonably protect Subscriber Confidential Trading Information from potential misuse.

## ATS-N/UA: Part III: Manner of Operations

**Item 2: Eligibility for ATS Services**

a. Does the NMS Stock ATS require Subscribers to be registered broker-dealers?	<input type="radio"/> Yes <input checked="" type="radio"/> No
b. Are there any other conditions that the NMS Stock ATS requires a Person to satisfy before accessing the ATS services?	<input checked="" type="radio"/> Yes <input type="radio"/> No
If yes, list and provide a summary of the conditions.	<p>Luminex admits as Subscribers large (generally \$1 billion or more in Assets Under Management (AUM)) buy-side asset management institutions that trade NMS equity securities. The Firm does not admit as Subscribers entities that trade proprietarily, high frequency trading firms, as that term is commonly understood, or broker-dealers. In addition to the AUM guidelines, prospective Subscribers must comply with Firm and regulatory due diligence, and account documentation requirements before being approved as a Subscriber. These due diligence requirements generally include the satisfactory completion of a written Subscriber Agreement, the submission of a U.S. Internal Revenue Service ("IRS") Form W-9 or equivalent, completion of the Luminex Consent to Public Name Disclosure Form (whereby the Subscriber agrees to have its name included on the current list of Luminex Subscribers published on and accessible via the Firm's public website), written Subscriber requests on preferences for the receipt of paper account statements (if applicable), a written Prime Brokerage Clearance Services Agreement (if applicable), the satisfactory completion of an Office of Foreign Asset Control (OFAC) review, and other customer identification requirements such as the receipt and review of the Subscriber's Form ADV (if applicable) and verification of other information of the Subscriber, such as its authorized contact persons and authorized traders. At its discretion, the Firm may, on a case by case basis, allow an entity to become a Subscriber with an AUM below the Firm's target if the Firm otherwise believes the Subscriber and its potential trading activity and behavior would be a good fit for the System and its current Subscribers. Examples of these factors may include, but are not limited to, entities that frequently trade NMS equity securities in block size and generally do not engage in short-term (such as intraday) trading in the same security.</p> <p>Luminex also admits broker-dealers that submit orders relating to Transition Management services (the "Transition Management Brokers") provided to asset management entities that are similar to the Luminex client types described immediately above. "Transition Management" generally refers to the process of an entity (such as a pension fund) "transitioning" from one investment</p>

manager to another, for example, which may require the liquidation of one portfolio of securities and the acquisition of another portfolio of securities. These Transition Management Brokers must attest to Luminex upon becoming a Subscriber that any orders or trading interest entered into the System by the Transition Management Brokers represents orders or trading interest from Transition Management clients of those brokers and not from any other desk or business lines of those brokers. With the exception of the Transition Management Brokers, Luminex does not admit any other broker-dealers as Subscribers. Any Nasdaq Entity is not eligible to become a Subscriber to the Luminex ATS.

c. If yes to Item 2(b), are the conditions required to be identified in Item 2(b) the same for all Persons?

☒ Yes ☐ No

d. Does the NMS Stock ATS require Subscribers to enter a written agreement to use the ATS services?

☒ Yes ☐ No

**Item 3: Exclusion from ATS Services**

a. Can the NMS Stock ATS exclude, in whole or in part, any Subscriber from the ATS services?

☒ Yes ☐ No

If yes, list and provide a summary of the conditions for excluding, in whole or in part, a Subscriber from the ATS services.

If a Subscriber's trading activities appear to be having a deleterious impact on the trading platform, that entity may be excluded from being able to interact in the System. An example of these activities includes, but is not limited to, repeated and prolonged (in the judgment of the Firm) patterns of declining to trade when presented with matching opportunities (referred to as falling down). Please see Part III Item 13. The Firm, in its sole discretion, can exclude any Subscriber from the ATS services if, for example, the Subscriber begins to engage in short-term (such as intraday) trading on the platform or if a Subscriber commences proprietary trading. A failure to meet financial or other due diligence requirements could also lead to a Subscriber being denied access to the ATS. A Subscriber may also be excluded from the ATS services if the Subscriber was accused of committing or was found to have committed regulatory violations that could pose regulatory or reputational risk to the Firm or to its other Subscribers, in the Firm's judgment. And if a Subscriber appears to be encountering financial difficulties (as evidenced by publicly available financial reports, via self-reporting by the Subscriber or via inquiry by the Firm, via a material drop in the Subscriber's AUM due to redemptions, or other factors as determined by the Firm), then that Subscriber may be excluded from the ATS services. If a

Subscriber that is a Transition Management Broker enters orders or trading interest into the System that does not represent order flow from Transition Management clients of that broker, the Transition Management Broker may be excluded from the ATS services. As noted in Part III Item 2, any Nasdaq Entity is not eligible to become a Subscriber to the Luminex ATS.

b. If yes to Item 3(a), are the conditions required to be identified in Item 3(a) the same for all Subscribers?

☒ Yes ☐ No

**Item 14: Counter-Party Selection**

a. Can orders or trading interest be designated to interact or not interact with certain orders or trading interest in the NMS Stock ATS (e.g., designated to execute against a specific Subscriber's orders or trading interest or prevent a Subscriber's order from executing against itself)?

☒ Yes ☐ No

If yes, explain the counter-party selection procedures, including how counter-parties can be selected, and whether the designations affect the interaction and priority of trading interest in the ATS.

Subscribers may opt to not interact with order flow (orders or trading interest) from Transition Management Brokers as described in Part III Items 2, 3, and 11. In addition, pursuant to the Firm's Tiering process as described in Part III Item 13(a), traders who have exhibited the most beneficial trading behavior in the ATS (those entering Firm Orders or Negotiable orders or firming up on Conditionals on 66% or more of matches during the measurement period) may elect not to match against those traders with the least beneficial trading behavior in the ATS (those firming up on less than 33% of matches during the measurement period as defined in Part III Item 13(a)). Subscribers and their traders may make these elections relating to the Transition Management order flow and the Tiering-related matching by notifying the Luminex ATS Sales team either orally or in writing. Elections relating to Transition Management order flow will become effective on the day of election, if made before or during trading hours. Elections relating to Transition



Management order flow made after trading hours will become effective on the following trading day. All elections relating to Tiering will become effective on the following trading day. Subscribers and their traders are only provided with their own tier placement and are not provided with the tier placement of any other Subscriber or other traders. The System is set up by default to prevent matches between orders of the same Subscriber. Subscribers can elect to change that default setting by notifying the Firm either orally or in writing, and that change would be effective on the following trading day.

b. If yes to Item 14(a), are the procedures for counter-party selection required to be identified in Item 14(a) the same for all Subscribers and the Broker-Dealer Operator?

☒ Yes ☐ No