

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?	<div><div><div><div><div></div><div>Yes</div></div><div><div></div><div>No</div></div></div></div></div>
b. Are there any other conditions that the NMS Stock ATS requires a Person to satisfy before accessing the ATS services?	<div><div><div><div><div></div><div>Yes</div></div><div><div></div><div>No</div></div></div></div></div>
<div>If yes, list and provide a summary of the conditions.</div> <div><p>The Luminex ATS is a buy-side (asset management) focused ATS. In that regard, Luminex admits as Subscribers buy-side asset management institutions that trade NMS equity securities. A typical profile of an asset management Luminex ATS Subscriber would include entities that trade NMS equity securities, often in block size, and that generally do not engage in short-term (such as intraday) trading in the same security.</p><p>Luminex also admits certain broker-dealers as Subscribers, as described below. Luminex only admits as Subscribers broker-dealers who are either (i) trading on behalf of existing Luminex buy-side Subscribers (“sponsored access”), (ii) Transition Management brokers, (iii) Outsourced Trading brokers, or (iv) Broker-Dealer Routers. For clarity, a broker-dealer Subscriber may access the ATS in multiple capacities (that is, for example, a Transition Management broker may also submit orders via a broker-dealer router).</p><p>Transition Management: Luminex may admit as a Subscriber a broker-dealer that submits orders or trading interest relating to Transition Management services (the "Transition Management Brokers"). "Transition Management" generally refers to the process of an entity (such as a pension fund) "transitioning" from one investment 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.</p><p>Sponsored Access: Luminex also admits broker-dealers as Subscribers that are designated by a Luminex buy-side Subscriber as a "sponsor" for orders or trading interest entered by the existing Luminex ATS buy-side Subscriber. In such "sponsored access" cases, Luminex buy-side Subscribers can, via the Luminex ATS UI, select an admitted broker-dealer as their "sponsor" on an order-by-order basis and have any resulting transaction credited and cleared and settled via that selected broker-dealer. Orders or trading interest relating to these sponsored access arrangements are entered by the Luminex buy-side Subscriber and such orders or trading interest are attributed to the Trader ID associated with the buy-side Subscriber's trader that entered such orders or trading interest for tiering (see Part III Item 13) or other applicable purposes.</p><p>Outsourced Trading: In addition, Luminex admits as Subscribers broker-dealers that perform so-called "outsourced trading" services for other entities ("Outsourced Trading Brokers"). "Outsourced Trading" generally refers to the practice of investment entities retaining third parties to perform trading services on their behalf, often seeking to leverage the size and scale of the typically larger Outsourced Trading Brokers. Luminex does not admit as Subscribers broker-dealers who are not trading on behalf of existing Luminex buy-side Subscribers, are not Transition Management brokers, or are not Outsourced Trading Brokers.</p><p>Broker-dealer Routers: Admitted broker-dealers may also enter orders or trading interest to the Luminex ATS directly on behalf of either (i) existing Luminex ATS buy-side Subscribers or (ii) buy-side institutions that are not separately Luminex ATS Subscribers and who utilize the services of Outsourced Trading brokers. All broker-dealer Subscribers who are entering orders or trading interest on behalf of buy-side institutions must agree to disclose to Luminex the underlying buy-side institution on all orders and trading interest submitted to the Luminex ATS (whether or not such buy-side institution is separately a Luminex ATS Subscriber). via broker-dealer routers that connect to the Luminex ATS.</p></div>	

The differences in the admission requirements are described in Item 2b above and are due to the distinctions between buy-side Subscribers and broker-dealer Subscribers. Buy-side Subscribers may be required to submit a current Form ADV, for example, whereas such documentation would not be applicable to broker-dealer Subscribers. Similarly, broker-dealer Subscribers would have to be members in good standing with an SRO, while this requirement is not applicable to buy-side Subscribers. Please see Item 2b above for a description of the requirements for both buy-side Subscribers and broker-dealer Subscribers.

If no, identify and describe any differences.

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Item 6: Connectivity and Co-location

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communication with the ATS (e.g., speed bumps)?

If yes, explain the methods to reduce the speed of communication with the ATS and provide a summary of the terms and conditions for its use.

f. If yes to Item 6(e), are the terms and conditions required to be identified in Item 6(e) the same for all Subscribers and the Broker-Dealer Operator?

The typical trading activities of some Subscribers may involve the simultaneous entry of numerous (perhaps dozens or more) indications of trading interest ("Conditionals"). The entry of such a large number of active Conditionals at one time could prove cumbersome for a trader to manage. In order to more effectively manage their Conditionals, Subscribers are able to opt in to a feature through which Subscribers can define both a number of Conditionals that to them would qualify as a "basket" (the minimum is one Conditional and there is no maximum) and also define a "collection period" for their Conditionals to be held in the System (the minimum is one millisecond and there is no maximum) before either the Subscriber or the System releases the Conditionals for potential matching opportunities. Through this feature, which would have to be enabled by Luminex and programmed into the Subscriber's particular user interface/front end, if the number of Conditionals entered by the Subscriber during the Subscriber-defined collection period equals or exceeds the Subscriber-set number that would define a basket for that Subscriber, the Conditionals will pend and will require the Subscriber to manually release the Conditionals into the System. If the number of Conditionals entered by the Subscriber during that collection period is less than the number that would be a basket for that Subscriber, the Conditionals will automatically go into the System and will become "live" active Conditionals. In either case, the Conditionals will pend during the Subscriber-specified collection period before being either manually or automatically released into the System. This functionality applies to Conditionals only and not to Firm Orders ~~or Negotiable Orders~~ and has no impact on order or trading interest priority.

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Yes

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No

Item 7: Order Types and Attributes

a. Identify and explain each order type offered by the NMS Stock ATS. In your explanation, include the following:

i. priority, including the order type's priority upon order entry and any subsequent change to priority (if applicable); whether and when the order type can receive a new time stamp; the order type's priority vis-à-vis other orders on the book due to changes in the NBBO or other reference price; and any instance in which the order type could lose execution priority to a later arriving order at the same price;

ii. conditions, including any price conditions (e.g., how price conditions affect the rank and price at which it can be executed; conditions on the display or non-display of an order; or conditions on executability and routability);

~~Negotiable Order and Firm Orders~~ Types- In ~~either a Negotiable Order or~~ Firm Order context (see below), a Subscriber must designate an "auto-execution" quantity associated with each ~~Negotiable or~~ Firm Order entered into the System ("AutoEx Quantity"). The minimum AutoEx Quantity is the System minimum trade size of 5,000 shares. ~~Additionally, a Subscriber may designate an optional negotiable quantity associated with each order ("Negotiable Quantity"). There is no minimum or maximum Negotiable Quantity. A "Negotiable Order" is an order that includes a Negotiable Quantity. A Negotiable Order's total size (the sum of its AutoEx Quantity and Negotiable Quantity) at any given time is its "Top Quantity." A "Firm Order" is a fully executable order that can execute in full at the entered AutoEx quantity upon a match in the System if the contra side order is another Firm Order or if the contra side Subscriber firms up on a Conditional. any order with an AutoEx Quantity that equals the Top Quantity. For both Firm Orders and Negotiable Orders,~~ Subscribers may specify a minimum quantity at which they are willing to trade ("MinQ") on an order-by-order basis, which must be equal or greater than 5,000 shares. For Firm ~~and Negotiable~~ Orders, MinQ specifies the minimum AutoEx Quantity with which a Subscriber will interact and does not allow for the aggregation of contra-side orders to satisfy an order's MinQ requirement. For example, an order with a MinQ of 21,000 shares would not interact with three 7,000 share Firm Orders. An order's MinQ cannot exceed the order's AutoEx Quantity. All unexecuted orders may be cancelled prior to matching (as discussed below) by timely submission to the System of cancellation instructions.

Conditionals - A "Conditional" is a representation of potential trading interest by a Subscriber in a particular security. Upon a match in the System, an invitation is sent to a Subscriber that entered a Conditional subject to a match for that Subscriber to "firm-up" the Conditional with a specific share amount at which the Subscriber would be willing to trade. Subscribers who enter Conditionals are presented with the opportunity to trade but not an obligation to do so, as such Subscribers may either actively decline the invitation or allow the invitation to "time out" following the end of the Negotiation Period as defined herein. The minimum trade size for Conditionals is also 5,000 shares, and there is no maximum quantity, although each order is bound by applicable pre-trade Market Access limits established by Luminex pursuant to SEC Rule 15c3-5 (the "Market Access Rule"). Such limits in this specific case include overall share size limits in relation to a security's average daily volume, total order notional size limits (meaning, the share volume of the order multiplied by the current price of the security), and the notional size of the order in relation to the Subscriber's overall gross notional limit set by the Firm for each Subscriber. There is no AutoEx for Conditionals, ~~nor is there a Negotiable Quantity.~~ Subscribers that enter a Conditional may also enter a MinQ, which specifies the minimum size of a contra-side order with which the Conditional would be willing to potentially trade. The MinQ for Conditionals must be greater than 5,000 shares. A Subscriber who enters a Conditional with a MinQ will not be presented with invitations to trade against contra-side orders with a Top Quantity that is less than the MinQ of the Conditional. If a Subscriber enters a MinQ on a Conditional and elects to firm-up (as explained below), the Subscriber must firm-up for at least the MinQ amount. Potential information leakage could occur if a Subscriber enters a Conditional with a very large MinQ to probe whether there is an equally large order or Conditional on the contra side to potentially match against. If that large Conditional matches a similarly sized contra side order or Conditional, the Subscriber entering the Conditional (as described below) could decline a match and thus learn of large

iii. order types designed not to remove liquidity (e.g., post-only orders), including what occurs when such order is marketable against trading interest on the NMS Stock ATS when received;

iv. order types that adjust their price as changes to the order book occur (e.g., price sliding orders or pegged orders) or have a discretionary range, including an order's rank and price upon order entry and whether such prices or rank may change based on the NBBO or other market conditions when using such order type; when the order type is executable and at what price the execution would occur; whether the price at which the order type can be executed ever changes; and if the order type can operate in different ways, the default operation of the order type;

v. whether an order type is eligible for routing to other Trading Centers;

vi. the time-in-force instructions that can be used or not used with each order type;

vii. the circumstances under which order types may be combined with another order type, modified, replaced, canceled, rejected, or removed from the NMS Stock ATS; and

viii. the availability of order types across all forms of connectivity to the NMS Stock ATS and differences, if any, in the availability of an order type across those forms of connectivity.

trading interest by another Subscriber without having had to effect a transaction in the System. In order to reasonably prevent such information leakage, the System caps the maximum size for the MinQ for ~~Negotiable and~~ Firm Orders and Conditionals. The maximum MinQ is set at 25,000 shares. Any change to the maximum MinQ will be disclosed in writing to Subscribers in advance of such change. For a Conditional, the entire quantity entered by the Subscriber is conditional, which gives the Subscriber the option, but not the obligation, to trade following a match of eligible orders or trading interest and the receipt of an invitation to trade. As described more fully below, a Subscriber who enters a Conditional may still decline an invitation to trade even if the contra side order's Top Quantity exceeds the MinQ of the Conditional.

Subscribers entering Conditionals may use limit prices, entered either via the Subscriber's OMS, EMS, or third-party or broker-dealer router or via the Luminex UI after the Conditional has been entered by the Subscriber on the Luminex ATS. Upon a match, the System will recall the entered limit price and route that limit price with the Subscriber's firm-up (if any) to the Luminex ATS. Any limit price entered by the Subscriber via the Luminex UI cannot violate a limit that the Subscriber entered for that Conditional via its OMS, EMS, or third-party or broker-dealer router.

Order Types - All orders or trading interest entered into the System are pegged, for order matching purposes, to the midpoint of the national best bid or offer ("NBBO") with the reference price calculation excluding (i) any manual quotations that have crossed the market and (ii) the quotations of any automated trading center with respect to which the Firm has declared self-help. A Subscriber may designate a limit price for each order or Conditional. Orders and Conditionals may only have a time-in-force of Day. All orders are either executed in the System or cancelled.

LevelUp - All Luminex ATS Subscribers can elect or "opt in" to a service called "LevelUp" that would allow the Subscriber to be able to direct that orders (in whole or in part) be routed by Luminex, as broker-dealer operator, from the Luminex ATS to the Level ATS. The handling of such routed orders will be governed by the rules and policies of the Level ATS once the order is entered into the Level ATS. While the Level ATS makes all of its features available to all Level ATS Subscribers, not all Level ATS features will be available to Luminex ATS Subscribers. Please see the Level ATS Form ATS-N for a full description of all Level ATS rules and policies. What follows is a description of the features and order parameters of the Level ATS that Luminex will offer to Luminex ATS Subscribers that opt in to the LevelUp feature.

Luminex will offer LevelUp participants two potential counterparty groups once the opt-in Luminex Subscriber orders reach the Level ATS: "BD/Agency Algo/Smart Order Router" order flow, or that segment as well as external market makers. Luminex Subscribers will also be able to request to interact with or not interact with specific Level ATS counterparties by submitting requests in writing to the Luminex ATS Sales team. While the Level ATS accepts Day, "Good Til Time," and "Immediate or Cancel" orders, Luminex will only support Day orders for LevelUp during the initial roll-out of the service.

Conditionals or Firm Orders can be used by Luminex ATS Subscribers as part of the LevelUp functionality. Subscribers can set system parameters such that all of their Firm Orders or Conditionals sent to Luminex would be immediately routed in full as Firm Orders (all orders sent by Luminex as broker-dealer operator to the Level ATS are Firm Orders) to the Level ATS without interacting with the Luminex ATS, be routed to the Level ATS after resting first at Luminex (Conditionals only) for a configurable time period if the order does not receive an execution on the Luminex ATS, or be routed to the Level ATS following a partial execution at the Luminex ATS. Subscribers may also select orders for routing to the Level ATS on an order-by-order basis, the parameters for which are all determined by the Subscriber on each order. This functionality involves the routing of a Firm Order to the Level ATS with certain criteria selected by the Subscriber. If the Subscriber chooses to have their Conditionals rest on the Luminex ATS before being routed by Luminex to the Level ATS, the Subscriber can set a "LevelUp Wait Time," which is the amount of time that a Conditional will rest at the Luminex ATS before a Firm Order will be sent by Luminex to the Level ATS. Subscribers can also set a share amount or a quantity percentage amount of their Firm Order or Conditional to be routed to the Level ATS. Luminex will select the lesser of the two quantities if both are selected. Subscribers can select a minimum required quantity for executions of their orders on the Level ATS, can set a limit, select a Level ATS order type (primary peg, midpoint peg, or market peg), and a "reload after completion" time which is a configurable period of time after a Subscriber execution on the Level ATS before the system will request more shares from the Subscriber's resting Firm Order or Conditional on the Luminex ATS (if any) to be routed to the Level ATS. If at least 5,000 shares remain resting at the Luminex ATS relating to an order routed to the Level ATS, Subscribers who receive a match on the resting shares at the Luminex ATS will have the ability to firm up for the total unexecuted quantities at both venues relating to that Subscriber's original Firm Order or Conditional. If the leaves quantity on a LevelUp order following an execution is less than the Subscriber's entered minimum quantity, the Subscriber's minimum quantity will be reduced to match the leaves quantity.

Subscribers may cancel their LevelUp orders via their OMS, EMS, or router or via the Luminex UI. Luminex would only cancel the Subscriber's order that had been routed to the Level ATS if required to do so, either because the Subscriber wishes to include the shares in a firm-up on the Luminex ATS or if the Subscriber's OMS or EMS requires it. All functionality must be requested by an Authorized Contact at the Subscriber to the Luminex ATS Sales department.

Luminex, in its capacity as a broker-dealer and the broker-dealer operator of the Luminex ATS, is the Subscriber to the Level ATS for the purposes of LevelUp and the Luminex ATS Subscriber is not. At the Level ATS, LevelUp orders must be Firm Orders and not Conditionals. LevelUp orders intended to rest first on the Luminex ATS must be for 5,000

shares or more, the Luminex ATS minimum order size. (See Part III Item 8 below.) If a Subscriber opts in for this functionality, LevelUp orders intended to be routed directly through Luminex to the Level ATS can be for less than 5,000 shares and must comply with the Level order size requirements. If a Luminex ATS Subscriber receives a LevelUp-related execution in the Luminex ATS which leaves less than 5,000 shares on the Subscriber's order, Luminex can still route that order to the Level ATS even though it is for less than the Luminex ATS system minimum. Luminex ATS Subscribers interested in this "clean-up" functionality are required to elect to enable this feature and the Luminex ATS Subscriber's OMS or EMS must be configured to re-send orders or trading interest to the Luminex ATS if the quantity falls below the Luminex ATS minimum order size of 5,000 shares. In addition, so long as a LevelUp participant has a Conditional of 5,000 shares or more resting on the Luminex ATS in addition to an order routed through to the Level ATS, that Subscriber will be able to size up on a match at the Luminex ATS to the total shares represented for that Subscriber in both venues.

This LevelUP order routing arrangement is not reciprocal; the Level ATS cannot route orders from its customers to the Luminex ATS. The use or non-use of LevelUP itself by any Luminex ATS Subscriber has no impact on the order priority or execution logic within the Luminex ATS. There are certain cases where certain LevelUP activity could impact related order priority within the Luminex ATS. For example, a Luminex ATS Subscriber may, prior to Luminex sending a Firm LevelUP order, reduce the quantity of a parent Conditional with the Luminex ATS by the intended quantity of the Firm LevelUP order via cancel/replace functionality. In that case, the new "replace" Conditional on the Luminex ATS would have a new lower priority rank than the original Conditional. Similarly, if a Subscriber cancels a Firm Order that had been routed by Luminex to the Level ATS and cancel/replaces the original Conditional on the Luminex ATS back to its original quantity, that new "replace" Conditional on the Luminex ATS would also have a new lower priority rank than the original Conditional. This rank adjustment occurs with cancel/replace functionality whether the Luminex ATS Subscriber uses LevelUP or not. LevelUP-related execution reports are sent from the Level ATS back to Luminex for clearance and settlement pursuant to normal Luminex processes.

Modifications - Firm ~~and Negotiable~~ Orders may be modified while resting on the System via cancel/replace, but not during the Negotiation Period, as defined below. For Conditionals that receive a match, the System allows the Subscriber to firm up the same shares as, more shares than, or fewer shares than the original Conditional submission at the Subscriber's option. Subscribers that use the Luminex UI can only increase the quantity up to the maximum quantity associated with the Conditional. Subscribers that do not use the Luminex UI and access the System via other means such as third-party or broker-dealer routers are able to respond to invitations up to whatever quantity they have available in the front end that they use, regardless of the original quantity that was entered on the Conditional. The Conditional quantity may only be reduced below the System minimum of 5,000 shares if the Subscriber has opted in to the "clean-up" feature of LevelUp, as described below, but may not be reduced below 5,000 shares during the Negotiation Period. For these "opt-in" Subscribers, such below-5,000 share modifications will be routed to the Level ATS for handling. For all other Subscribers, reducing the share quantity to less than the 5,000 share System minimum (or the Subscriber's selected MinQ) will result in a rejection. In addition, if a Conditional is entered with a limit, that limit price may be modified following a match.

Order Priority - Assuming orders and trading interest are marketable, the System prioritizes orders and trading interest based on the following factors, in the following order: (1) the higher AutoEx Quantity (for between two Firm and Negotiable Orders only), (2) Firm Orders over Conditionals, (3) Top Quantity (between two Conditionals) and (4) time of order entry or entry of the trading interest. Orders or Conditionals that are subject to a cancel/replace lose their priority in the System, with the "replace" being treated as a new order or Conditional for prioritization purposes. The functionality for Subscribers' traders to enter Firm ~~and Negotiable~~ orders is enabled in all OMS/EMS or routers that are integrated with/connected to the System. The functionality for Conditionals has been made available to all Subscribers but not all Subscribers use the Conditional functionality. Please see also Part III Item 9.

b. Are the terms and conditions for each order type and attribute the same for all Subscribers and the Broker-Dealer Operator?

Yes No

Item 8: Order Sizes

a. Does the NMS Stock ATS require minimum or maximum sizes for orders or trading interest?

Yes No

If yes, specify any minimum or maximum order or trading interest size requirements and any related handling procedures.

The System has a minimum order and Conditional size and a minimum trade size of 5,000 shares. The System has no maximum order or Conditional size or maximum trade size. However, the maximum order, Conditional, and trade size may vary by Subscriber and may vary by security dependent upon the Market Access limits imposed by the Firm as noted in Part III Item 7(a). Similarly situated Subscribers are subject to similar limits unless a Subscriber requests more stringent limits than those imposed by the Firm.

As described in Part III Item 7(a), if a Luminex ATS Subscriber opts in to the LevelUp functionality, LevelUp orders intended to be routed directly through Luminex to the Level ATS can be for less than 5,000 shares and must comply with the LevelL order size requirements. If a Luminex ATS Subscriber receives a LevelUp-related execution in the Luminex ATS which leaves less than 5,000 shares on the Subscriber's order, the System can still route that order to the LevelL ATS even though it is for less than the Luminex ATS system minimum. Luminex ATS Subscribers interested in this "clean-up" functionality are required to elect to enable this feature and the Subscriber's OMS or EMS must be configured to re-send orders or trading interest to Luminex if the quantity falls below the Luminex ATS minimum order size of 5,000 shares. In addition, so long as a LevelUp participant has a Conditional of 5,000 shares or more resting on the Luminex ATS in addition to an order routed through to the LevelL ATS, that Luminex ATS Subscriber will be able to size up on a match at the Luminex ATS to the total shares represented for that Subscriber in both venues.

b. If yes to Item 8(a), are the requirements and procedures required to be identified in Item 8(a) the same for all Subscribers and the Broker-Dealer Operator?

Yes No

c. Does the NMS Stock ATS accept or execute odd-lot orders?

Yes No

e. Does the NMS Stock ATS accept or execute mixed-lot orders?

Yes No

If yes, specify any mixed lot order requirements and related handling procedures (e.g., mixed lot treated the same as round lot).

While the System is set up by default to allow for the handling of mixed lot orders, Subscribers can elect to only execute in round lots, so long as executions are for at least the System minimum of 5,000 shares. This election is a Subscriber-level setting that applies to all of a Subscriber's traders and their executions. When there is a match of two orders pursuant to the processes described herein, the System will determine whether either side has elected to execute only in round lots. If either side has so elected, the System will take the lower common quantity (either Firm-AutoEx or Firm-Up/Size-Up quantity) and will round down to the nearest 100 share lot if necessary. Subscribers that have made the round lot election may continue to bid in whatever increments they choose, but the execution will be rounded down to the nearest round lot. Any Subscriber Leaves Handling instructions (meaning, instructions on how the System is to treat the unexecuted or "leaves" portion of the order) are unaffected. (Leaves Instructions can include instruction for the unexecuted portion of the order to be cancelled back to the Subscriber or that it be automatically reentered into the System as a new order or Conditional.)

f. If yes, to Item 8(e), are the requirements and procedures required to be identified in 8(e) the same for all Subscribers and the Broker-Dealer Operator?

Yes No

Item 9: Conditional Orders and Indications of Interest

a. Does the NMS Stock ATS send or receive any messages indicating trading interest (e.g., IOIs, actionable IOIs, or conditional orders)?

Yes No

If yes, identify and explain the use of the messages, including information contained in messages (e.g., price or size minimums), how the message is transmitted (e.g., order management system, smart order router, FIX), when the message is transmitted (e.g., automatically by the ATS, or upon the sender's request), the type of Persons that receive the message (e.g., Subscribers, Trading Centers), responses to conditional orders or IOIs (e.g., submission to firm-up conditional orders), and the conditions under which the message might result in an execution in the ATS (e.g., response time parameters, interaction, and matching).

b. If yes to Item 9(a), are the terms and conditions governing conditional orders and indications of interest the same for all Subscribers and the Broker-Dealer Operator?

Conditionals - A "Conditional" is an indication of trading interest that is ~~neither a Negotiable Order nor~~ a Firm Order. The minimum trade size for a Conditionals is also 5,000 shares, and there is no maximum quantity, although each order is bound by applicable pre-trade limits established by Luminex pursuant to SEC Rule 15c3-5. There is no AutoEx for Conditionals, ~~nor is there a Negotiable Quantity~~. Subscribers that enter a Conditional may also enter a MinQ, which specifies the minimum size of a contra-side order against which the Conditional could potentially trade. The MinQ for Conditionals must be greater than 5,000 shares. A Subscriber who enters a Conditional with a MinQ will not be presented with invitations to trade against contra-side orders with a Top Quantity that is less than the MinQ of the Conditional. If a Subscriber enters a MinQ on a Conditional and elects to "firm-up," the Subscriber must firm-up for at least the MinQ amount. Potential information leakage could occur if a Subscriber enters a Conditional with a very large MinQ to probe whether there is an equally large order on the contra side to potentially match against. If that large Conditional matches a similarly sized contra-side order, the Subscriber entering the Conditional (as described below) could decline a match and thus learn of large trading interest by another Subscriber without having had to effect a transaction in the System. In order to reasonably prevent such information leakage, the System caps the maximum order size for the MinQ for ~~Negotiable and~~ Firm Orders and Conditionals. The maximum MinQ is set at 25,000. Any change to the maximum MinQ will be disclosed in writing to Subscribers in advance of such change. For a Conditional, the entire quantity entered by the Subscriber is conditional, which gives the Subscriber the option, but not the obligation, to trade following a match of eligible orders or trading interest and the receipt of an invitation to trade. As described more fully below, a Subscriber who enters a Conditional may still decline an invitation to trade even if the contra-side order's Top Quantity exceeds the MinQ of the Conditional.

There are no differences in how Conditionals are entered versus Firm Orders ~~or Negotiable Orders~~ except for the requirement to enter an AutoEx quantity for a Firm ~~or Negotiable~~ order, which is not applicable to Conditionals. Conditionals may be submitted via the Subscriber's OMS or EMS (whether a vendor system or a proprietary OMS or EMS) or via a third party service provider or broker-dealer router. Upon a match with a potential contra-side order (which could be Conditional or, Firm Order, ~~or Negotiable Order~~), an invitation to firm up the Conditional is sent to the Subscriber who entered the Conditional. The trader who entered the Conditional has the ability to either decline the opportunity to trade, to firm up the Conditional for some quantity limited to the Top Quantity entered with the Conditional, or allow the invitation to expire. To firm up following an invitation to trade, a trader specifies the amount of shares that the trader is willing to trade relating to that specific match. No additional terms or conditions are entered in a firm-up. In addition, no information about the potential contra-side order or trading interest is provided other than the fact that one exists. Potential order and trading interest interaction scenarios are described in the response to Part III Item 11(c) and examples are also outlined in the attachment relating to Part III Item 11(c). If the trader who entered the Conditional elects to firm up and trade, an execution will occur at a price determined by the System and at the lower of the two submitted quantities submitted by both sides to the match. Please see also Part III Item 7. Once firm-up invitations are sent to a trader following a match in the System, the trader has twenty (20) seconds to respond to the firm-up invitation, with the exception of end of day order interaction processes described in Part III Item 11(c).

Yes No

Item 11: Trading Services, Facilities and Rules

a. Provide a summary of the structure of the NMS Stock ATS marketplace (e.g., crossing system, auction market, limit order matching book) and explain the means and facilities for bringing together the orders of multiple buyers and sellers on the NMS Stock ATS.

Luminex is a crossing system utilized by its Subscribers, who are large buy-side asset management institutional investors, broker-dealers who enter orders or trading interest on behalf of such buy-side Subscribers, Outsourced Trading Brokers, and Transition Management Brokers. Only such Subscribers may enter orders or trading interest and execute orders on the System. Subscribers may enter Firm Orders, ~~Negotiable Orders~~, or Conditionals as defined in Part III Items 7 and 9, at the Subscriber's option and as permitted by the functionality of the means used by the Subscriber to enter orders or trading interest into the System. All NMS Stocks are eligible to trade in the System. Assuming orders or trading interest are marketable, the System prioritizes orders and trading interest based on the following factors, in the following order: (1) the higher AutoEx Quantity (between two for Firm and Negotiable Orders only), (2) Firm Orders over Conditionals, (3) Top Quantity (between two Conditionals), and (4) time of order entry or entry of the trading interest.

b. Are the means and facilities required to be identified in Item 11(a) the same

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No

for all Subscribers and the Broker-Dealer Operator?

c. Explain the established, non-discretionary rules and procedures of the NMS Stock ATS, including order interaction rules for the priority, pricing methodologies, allocation, matching, and execution of orders and trading interest, and other procedures governing trading, such as price improvement functionality, price protection mechanisms, short sales, locked-crossed markets, the handling of execution errors, and the time-stamping of orders and executions.

Assuming orders or trading interest are marketable, the System prioritizes orders and trading interest based on the following factors, in the following order: (1) the higher AutoEx Quantity (between two for Firm and Negotiable Orders only), (2) Firm Orders over Conditionals, (23) Top Quantity (between two Conditionals), and (34) time of order entry or entry of the trading interest. There are no order type restrictions following a stoppage of trading in a security during regular trading hours.

Order Interaction - It is possible for any of the supported order or trading interest types - Firm ~~and Negotiable~~ Orders and Conditionals - to interact with each other, as described more fully in the attached chart. In the scenarios described in the chart, the actions of the buyer who enters a particular order or trading interest type with various characteristics are mapped against the seller who enters a particular order or trading interest type with various characteristics. The scenarios assume both sides are marketable and show what the result would be if the buyer and seller took particular actions. A helpful way to read the chart, for each scenario, is, "Assume the buyer entered an order or trading interest of this type, for this size, at this price, and matched against a seller who entered an order or trading interest of this type, for this size, and at this price. If the buyer and/or seller responded to the match in this way or these ways, here is the expected result." Where at least one side of a match is ~~either a Conditional or a Negotiable Order~~, an invitation to trade is sent to that Subscriber (a "Firm-Up Request" ~~or a "Size-Up Request," respectively~~). ~~In the case of a Negotiable Order, the Subscriber is required to trade at least the Subscriber's entered AutoEx Quantity and may elect to trade some, all or none of its negotiable shares as represented in its entered Top Quantity.~~ Note that "SSR" in the chart refers to short sale restriction. (Please see the Order Interaction during an Exchange Act Rule 201 Short Sale "Circuit Breaker" below.)

Auto Execution - Where there are two marketable orders in the same security on opposite sides, the orders will match. Firm Orders that match will execute immediately at the midpoint of the National Best Bid or Offer (NBBO) at the time of the match, with the execution size being the smaller of the two orders' AutoEx Quantities ("Auto Execution"). ~~If a Firm Order matches with a Negotiable Order and the Firm Order's AutoEx Quantity is either equal to or less than the Negotiable Order's AutoEx Quantity, this match will also result in an Auto Execution at the smaller of the two orders' AutoEx Quantities. Firm and Negotiable Orders that match with either another Firm or Negotiable Order within six seconds of the close of trading will be subject to Auto Execution (i.e., execution for the smaller of the two orders' AutoEx Quantity).~~ A Firm Order can match and execute against another Firm Order until 15:59:59.

Negotiation - ~~Size-Ups and Firm-Ups~~ - In the absence of an Auto Execution, orders can enter negotiation after matches that include ~~either a Negotiable Order or a Conditional. Where both orders are Negotiable Orders, or where only one order is a Negotiable Order and a contra-side Firm Order's AutoEx Quantity is larger than the Negotiable Order's AutoEx Quantity, the System will send a Size-Up Request to one or both Subscriber(s) to size-up.~~ Subscribers that enter Conditionals and receive a match are sent Firm-Up Requests. For matches that occur in the System up until 15:59:37, Subscribers that receive invitations to negotiate are given 20 seconds in which to determine whether, and for what quantity, to ~~size-up or~~ firm-up. The Subscriber(s) will be given the option to ~~size~~firm-up to their Top Quantity, regardless of the contra-side's Top Quantity. ~~A Negotiable Order's Size-Up Quantity equals that order's AutoEx Quantity and the number of shares, if any, of the order's Negotiable Quantity that the Subscriber elects to make available for execution in response to a Size-Up Request.~~ A Conditional's Firm-Up Quantity equals the number of shares, if any, of the Conditional's Top Quantity that the Subscriber elects to make available for execution in response to a Firm-Up Request. As noted, where a Conditional has a MinQ, a Subscriber may not firm-up for an amount less than the Conditional's MinQ. Upon an invitation to ~~size-up or~~ firm-up, a trader solely enters a share quantity and no other terms or conditions. Once submitted, a ~~Size-Up or~~ Firm-Up Quantity cannot be modified or cancelled. During the Negotiation Period, which is the time period that a Subscriber has to determine whether to firm-up ~~or size-up~~, the Subscriber's order cannot match with another order. Additionally, neither party may cancel or modify its order once the initial match has occurred and the parties are in negotiation. Any cancellation requests will pend or queue in the System and will be processed once the negotiation has concluded. Execution size is determined upon the earlier of (a) the last required Subscriber's election to ~~size-up or~~ firm-up, or (b) 20 seconds from the time of the initial match (i.e., the Negotiation Period for all trades other than at the very end of the trading day). The size of the execution will be (1) in the event only one Subscriber was asked to ~~size-up or~~ firm-up, the lesser of that order's ~~Size-Up or~~ Firm-Up Quantity and the AutoEx Quantity of the contra-side order and (2) in the event both Subscribers are asked to ~~size-up or~~ firm-up, the smaller of the ~~Size-Up Quantity or~~ Firm-Up Quantity elected. ~~The Negotiable Order's AutoEx Quantity will be used in lieu of a Size-Up Quantity if the Subscriber does not respond to the Size-Up Request.~~ Execution price will be based on a decaying weighted average of the midpoints of the NBBO (based upon the Securities Information Processor ("SIP") feed for such security) observed each second of the Negotiation Period, starting at the time of the initial match, plus the two seconds immediately thereafter, where each midpoint price receives half the weight of the prior midpoint price (the "Derived Price"). The Derived Price will be rounded to the nearest halfpenny, subject to any constraints associated with an order's terms and conditions. In the event the Derived Price is worse than a Subscriber's limit price (the Exceeded Limit Price), the match between a Firm Order ~~or Negotiable Order~~ and another Firm Order ~~or Negotiable Order~~ will be limited to the lesser of the two orders' AutoEx Quantities at the Exceeded Limit Price. If one party to a match had entered a Conditional, or if both parties to a match had entered a Conditional, then an execution would not occur in the System if either party's limit price would be breached by the Derived Price of a transaction. See Part III Item 8(e) above for Mixed Lot Processing.

Auto Firm-Up - Subscribers have the ability to enter a quantity in the Luminex UI up to the Top Quantity of an existing Subscriber order which will instruct the System, upon a match, to automatically firm up that Subscriber's order via this Auto Firm-Up (AFU) feature. In the event of one or more partial fills (executions for less than the Top Quantity), the AFU quantity will be decremented by each execution amount until the remaining order size is less than 5,000 shares, the System minimum order size. At such time, the AFU election will be dropped or disabled. If there is an execution for the full AFU quantity, subsequent matches would operate via the standard (non-AFU) Luminex ATS rules. Orders using AFU are required to have a limit price, either entered via FIX message to the Luminex ATS or entered by the Subscriber manually via the Luminex UI.

Order Interaction during an Exchange Act Rule 201 Short Sale "Circuit Breaker" - When an Exchange declares a short sale "circuit breaker" pursuant to Exchange Act Rule 201, trading centers, with limited exceptions, are prohibited from executing short sales at a price that is equal to or below the national best bid. The "circuit breaker" restrictions generally remain in place on the day the "circuit breaker" is declared and for the entire following trading day. As noted, where both the seller and buyer have entered marketable Firm Orders and match, the System will immediately execute the transaction at the NBBO midpoint, as discussed herein. During a Rule 201 "circuit breaker," if the seller has entered a Firm Order, ~~a Negotiable Order~~, or a Conditional to sell short that matches against ~~a Negotiable Order or~~ a Conditional, the System may execute that order if the Derived Price of the transaction following the Negotiation Period is determined to be above the national best bid, in conformance with SEC Rule 201. If the Derived Price is determined to be at or below the national best bid, there will be no execution. Similarly, in these scenarios, the System will also check the Derived Price against the seller's limit price (if any), and if the Derived Price would violate the seller's limit price, there will be no execution.

End of Session Order Interaction - The order interaction protocols described above apply until 15:59:37. Until this time, negotiations can last for up to twenty seconds, and executions occur approximately two seconds following the conclusion of the negotiation. Because the System requires approximately two seconds to effect trades following a negotiation, the System requires that all negotiations end by 15:59:57. Between 15:59:37 and 15:59:57, the System will permit Negotiation Periods of less than twenty seconds, the duration of which will be the maximum amount of time remaining in the trading day up to 15:59:57. The shortest permissible Negotiation Period during this window is three seconds. For example, if a match occurs at 15:59:40, negotiations may continue for up to seventeen seconds (i.e., the maximum amount of time remaining until 15:59:57). Similarly, if a match occurs at 15:59:50, negotiations may continue for up to seven seconds (i.e., the maximum amount of time remaining until 15:59:57). If a match occurs at 15:59:54, negotiations may continue for up to three seconds (i.e., the maximum amount of time remaining until 15:59:57). Orders may not enter into a negotiation after 15:59:54. ~~As noted above, all Firm and Negotiable Orders matched with either a Firm or Negotiable Order during the last six seconds of trading will automatically execute at the lesser of the two orders' AutoEx Quantities.~~ Conditionals that do not receive a match by 15:59:54 or that are received by the System after 15:59:54 cannot execute before the close of trading. The truncated Negotiation Periods near the close of trading allow Subscribers the opportunity to execute transactions that might not otherwise be possible if the System only permitted a Negotiation Period of twenty seconds. In the event of a shortened trading day, such as a holiday, the same protocols would apply during the last 23 seconds of the shortened trading day.

Multiple buyers and sellers are not permitted in the same execution, and thus allocation does not apply in this context. Luminex considers the results of its pricing calculation to be price improvement for both buyer and seller given that it is either the midpoint of the NBBO or at a price derived from a series of NBBO midpoints as described above.

Errors or Accommodations - In the event of a System error, such as an execution at a price based upon outdated or erroneous market data, Luminex would contact the Subscriber who may have been disadvantaged through the error to ask if the Subscriber wishes to have its execution priced at the corrected price as determined by the Firm using updated market data. If the Subscriber states, either orally or in writing, that it wishes to have the corrected execution price, Luminex would adjust the price on that Subscriber's execution, assuming the money difference in the Firm's Error account. If the disadvantaged Subscriber determines and notifies the Firm orally or in writing that it does not want the erroneous execution at all, even if adjusted to the correct price, and the contra-side to the execution did not want to bust the trade, then the Firm would assume the Subscriber position resulting from error and would trade out of that position outside of the ATS by sending an order to its clearing firm for handling and execution. The Firm does not execute any principal orders in the System. The Firm also may, in limited circumstances and in its sole discretion, grant accommodations to Subscribers due to unusual execution scenarios that impact a Subscriber but are not the result of a System error. For example, a Subscriber may receive an execution in the System in a mixed lot and may prefer an execution in a round lot. In such a case, if requested by a Subscriber orally or in writing, the Firm may elect to fill the remaining shares that would create a round lot execution for the Subscriber. The Firm would price those remaining shares at the same price as the mixed lot execution in the System, and the Firm would send an order to its clearing firm for handling and execution to cover the shares needed to fill the odd lot portion of the Subscriber order. The Firm maintains separate Error and Facilitation accounts for handling these respective scenarios.

The System time stamps all phases of the order and trading interest life cycle and does so in nanoseconds.

d. Are the established, non-discretionary rules and procedures required to be

Yes

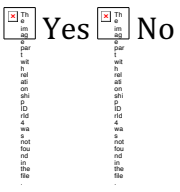
No

identified in Item 11(c) the same for all Subscribers and the Broker-Dealer Operator?

Item 13: **Segmentation; Notice**

a. Are orders and trading interest in the NMS Stock ATS segmented into categories, classifications, tiers, or levels (e.g., segmented by type of participant, order size, duration, source, or nature of trading activity)?

If yes, explain the segmentation procedures, including (i) a description for how orders and trading interest are segmented; (ii) identify and describe any categories, classification, tiers, or levels and the types of orders and trading interest that are included in each; (iii) provide a summary of the parameters for each segmented category and length of time each segmented category is in effect; (iv) any procedures for overriding a determination of segmented category; and (v) how segmentation can affect order interaction.



Since implementation of Conditional functionality, Luminex has been educating Subscribers and their traders on its expectations regarding how traders should conduct their trading on the ATS (e.g., discouraging fall downs, which occur when a trader is presented with a match and either actively declines the opportunity to trade or allows the invitation to timeout without accepting the opportunity to trade). The Firm appreciates that there are legitimate reasons why a trader would fall down or decline the opportunity to trade when presented with a match on any venue. For example, the trader may have previously traded that same NMS stock on another venue and he or she may perhaps no longer be interested in buying or selling more of that stock. Or, perhaps the price of the security in question moved in a direction that makes purchasing or selling the security less optimal for the trader. However, repeated patterns of falling down in response to numerous trading invitations can cause frustration and negative experiences for those with the contra side of those matches. Thus, the Firm monitors and polices fall downs in order to try to keep fall downs to a minimum and thus improve the trading experience for all Subscribers.

In order to encourage the preferred manner of trading for which Luminex was designed and that its Subscribers expect, Luminex offers traders that have exhibited the most beneficial trading patterns (e.g., traders who consistently firm-up Conditionals or who enter ~~Negotiable Orders or~~ Firm Orders) the ability to avoid trading with traders that exhibit the least beneficial trading patterns (e.g., traders who frequently fall down when presented with matching opportunities). Luminex accomplishes this by tiering its Subscribers' traders based on those traders' individual trading activities. The Firm's analysis of traders' trading behaviors (as indicated by fall down rates for Conditionals and by the entry of Firm ~~or Negotiable Orders~~) focuses on activity at the individual Trader ID level, as a Subscriber may have multiple traders each with separate access (and perhaps multiple access points) to the ATS under a distinct Trader ID.

The Firm's tiering system consists of three tiers: Tier 1, Tier 2, and Tier 3. Tier 1 consists of traders who firm up 66% or more of the time on potential matches presented to them. And because Firm Orders ~~and Negotiable Orders each~~ contain a committed portion of that order that will trade upon consummation of a match, with no option to decline to trade, each entered Firm Order ~~or Negotiable Order~~ is the equivalent of a firm-up on a Conditional for the purposes of assessing trader behavior in the pool because ~~each of~~ these order types represents a willingness to trade upon a match in the System. Tier 3 consists of traders who firm up less than 33% of the time on potential matches presented to them. Tier 2 consists of all other traders.

Traders in Tier 1 are able, at their election, to avoid potential matches with traders in Tier 3. Traders may make this election at any time, including when they are in Tier 2 or Tier 3. However, the election will only become effective once the trader achieves a Tier 1 status. Traders may reverse that election at any time by notifying the Firm, and Luminex will implement that change as soon as practicable. The Firm has provided notice to all Subscribers and traders of relevant details regarding the tiering program (e.g., the criteria used to determine and move between tiers) prior to the implementation of the tiering program and will continue to provide notice in advance of any changes to the tiering program. Subscribers and traders may elect to receive notice of any changes to the placement of a Subscriber's traders in a tier that would impact their matching opportunities.

Tier calculations are performed weekly as of the close of business each Friday (or Thursday, in the event of a Friday market holiday). The calculation is based upon a week's worth of matches, with a minimum of twenty matches. If there are fewer than twenty matches for the week, the Firm will look back for the last twenty matches in the last (rolling) three months (meaning, the three prior consecutive calendar months preceding that weeks analysis date). In the event there are not twenty matches in the last (rolling) three months, the Firm will evaluate as many matches as possible but no fewer than ten matches. Any trader with fewer than ten matches will be in Tier 2. Tier placements are effective on the first trading day of the following week (Mondays, unless a particular Monday is a market holiday, in which case the tier placements would be effective on the Tuesday after the

Tier 1 "Opt-In" traders will match with all traders except those in Tier 3. Tier 2 traders and "non-Opt-In" traders in Tier 1 will match with all traders. Tier 3 traders will match with all traders except the Tier 1 "Opt-In" traders.

For traders with more than one method of entering orders onto the System (e.g., third party OMS/EMS or third party service bureau or broker-dealer router - see Part III, Item 5), that trader's trading behavior on each method is judged independently of the other for tier calculation purposes. Thus, if Trader A's activity via an OMS qualified Trader A for Tier 1 status but Trader A's activity via a service bureau router was deemed to be of Tier 3 status, Trader A could "opt-in" to avoid matches with Tier 3 traders, but that election would only apply to the potential matches that resulted from Trader A's use of his or her OMS and not to any potential matches that resulted from Trader A's use of the service bureau router. Similarly, if Trader B was in Tier 1 and opted in to avoid matching against Tier 3 traders, that Trader B could be presented with potential matches against orders entered by Trader A's OMS but would not be presented with matches against orders entered by Trader A's service bureau router.

The Firm has no requirement that any trader or set percentage of traders be in any particular tier. Consequently, it is possible that if there are no traders exhibiting less beneficial trading practices, there would be no traders in Tier 3. All new traders will begin in Tier 2. While there is no "appeal" process with respect to a trader's tier placement, Luminex retains the right to assign a Subscriber's traders to a different tier if in the Firm's judgment that tier is more appropriate based on factors such as those traders' broader histories on the Luminex platform.

b. If yes to Item 13(a), is the segmentation of orders and trading interest the same for all Subscribers and the Broker-Dealer Operator?

Yes **No**

par	par
wet	welt
rel	rell
all	all
on	on
shi	shi
ld	ld
4	4
wa	wa
s	s
not	now
nd	nd

c. Does the NMS Stock ATS identify orders or trading interest entered by a customer of a broker-dealer on the NMS Stock ATS as a customer order?

Yes **No**

Th	a	im	git
pair	t	pair	t
wit	t	wit	t
rel	rel	rel	rel
on	on	on	on
ghil	ghil	ghil	ghil
p	p	p	p
ID	ID	ID	ID
rid	rid	rid	rid
4	4	4	4
wa	wa	wa	wa
s	s	s	s
not	not	not	not
four	four	four	four

d. If yes to Item 13(a), does the NMS Stock ATS disclose to any Person the designated segmented category, classification, tier, or level of orders and trading interest?

Yes No

If yes, provide a summary of the content of the disclosure, when and how the disclosure is communicated, who receives it, and whether and how such designation can be contested.

Luminex discloses a trader's tier to that trader and his or her firm only, on the Luminex trading application User Interface and otherwise upon request of the Subscriber or trader. A Subscriber's traders' tier is not disclosed to any other Subscriber or to other traders.

e. If yes to Item 13(d), are the disclosures required to be identified in 13(d) the same for all Subscribers and the Broker-Dealer Operator?

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)?

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.

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?

If no, identify and explain any differences.

☒ The image Yes ☒ The image No

Th	Yes	Th	No
a		a	
ag		ag	
par		par	
t		t	
wit		wit	
h		h	
ad		ad	
on		on	
un		un	
p		p	
id		id	
nd		nd	
4		4	
w		w	
s		s	
not		not	
fou		fou	
nd		nd	
in		in	
the		the	
file		file	

Luminex ATS buy-side Subscribers are able to opt out of interacting with any admitted type of broker-dealer (Outsourced Trading, Transition Management, or broker-dealer entering orders or trading interest on behalf of buy-side Subscribers), as described in Part III Items 2, 3, and 11, but not any specific broker-dealer. Buy-side Subscribers may also opt out of interacting with all broker-dealer order flow. Admitted broker-dealer Subscribers are not able to opt out of interacting with any type of order flow in the Luminex ATS.

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.

☒ The image Yes ☒ The image No

Yes No

As noted in Item 14(a) above, while all Luminex ATS buy-side Subscribers are able to opt out of interacting with broker-dealer-related order flow, broker-dealer Subscribers may not opt out of interacting with any type of order flow in the Luminex ATS.

Item 15: Display

a. Does the NMS Stock ATS operate as an Electronic Communication Network as defined in Rule 600(b)(23) of Regulation NMS?

b. Are Subscriber orders and trading interest bound for or resting in the NMS Stock ATS displayed or made known to any Person (not including those employees of the NMS Stock ATS who are operating the system)?

☒ The image Yes ☒ The image No

Yes No

☒ The image Yes ☒ The image No

Yes No

If yes, explain the display procedures, including how and when Subscriber orders and trading interest are displayed, how long orders and trading interest are displayed, what information about orders and trading interest is displayed, and the functionality of the Broker-Dealer Operator and types of market participants that receive the displayed information.

c. If yes to Item 15(b), are the display procedures required to be identified in 15(b) the same for all Subscribers and the Broker-Dealer Operator?

Subscriber orders and trading interest bound for or resting in the ATS are not displayed inside or outside the System and are made known to other Subscribers only in limited circumstances. When a marketable buy order and a marketable sell order match in the System, invitations are sent to both the buyer and seller to ~~either firm-up or size-up~~ their respective orders for ~~Negotiable Orders and Conditionals, respectively~~. Upon a match, the fact that a contra side order in that specific NMS stock exists in the System is then made known to another Subscriber that is a party to the match, although the specific terms of the contra side order are not disclosed. No other information about the contra side order or trading interest is disclosed upon a match. If a transaction is effected in the System, each side will not know whether there is any remaining interest in the security in the System unless there is a subsequent match in that security involving either of the two parties. Similarly, if a Firm Order matches with another Firm Order, or if a Firm Order matches with ~~a Negotiable Order or a Conditional~~, each side of the potential transaction will become aware that there is contra side trading interest in the System in that specific security.

Yes No

Item 17: Closing

a. Are there any differences between how orders and trading interest are treated on the NMS Stock ATS during the close and how orders and trading interest are treated during regular trading hours?

If yes, identify and explain the differences as compared to the information provided in the relevant Part III Items of this form.

End of Session Order Interaction - The order interaction protocols described in Part III Items 10 and 11 above apply until 15:59:37. Until this time, negotiations can last for up to twenty seconds, and executions occur approximately two seconds following the conclusion of the negotiation. Because the System requires approximately two seconds to effect trades following a negotiation, the System requires that all negotiations end by 15:59:57. Between 15:59:37 and 15:59:57, the System will permit Negotiation Periods of less than twenty seconds, the duration of which will be the maximum amount of time remaining in the trading day up to 15:59:57. The shortest permissible Negotiation Period during this window is three seconds. For example, if a match occurs at 15:59:40, negotiations may continue for up to seventeen seconds (i.e., the maximum amount of time remaining until 15:59:57). Similarly, if a match occurs at 15:59:50, negotiations may continue for up to seven seconds (i.e., the maximum amount of time remaining until 15:59:57). If a match occurs at 15:59:54, negotiations may continue for up to three seconds (i.e., the maximum amount of time remaining until 15:59:57). Orders may not enter into a negotiation after 15:59:54. ~~As noted above, all Firm and Negotiable Orders matched with either a Firm or Negotiable Order during the last six seconds of trading will automatically execute at the lesser of the two orders' AutoEx Quantities.~~ Conditionals that do not receive a match by 15:59:54 or that are received by the System after 15:59:54 cannot execute before the close of trading. The truncated Negotiation Periods near the close of trading allow Subscribers the opportunity to execute transactions that might not otherwise be possible if the System only permitted a Negotiation Period of twenty seconds. In the event of a shortened trading day, such as a holiday, the same protocols would apply during the last 23 seconds of the shortened trading day.

b. Is the treatment of orders and trading interest during the close the same for all Subscribers and the Broker-Dealer Operator?

Yes ☒ No

Item 19: Fees

a. Identify and describe any fees or charges for use of the NMS Stock ATS services, including the type of fees (e.g., subscription, connectivity), the structure of the fees (e.g., fixed, volume-based, transaction-based), variables that impact the fees (e.g., types of securities traded, block orders, form of connectivity to the ATS), differentiation among types of Subscribers (e.g., broker-dealers, institutional investors, retail) and range of fees (e.g., high and low).

Luminex's base execution rate is 50 mills (\$0.005) per executed share. ~~In rare instances, Luminex may charge a higher rate for Subscribers whose connectivity fees that Luminex pays are higher than most other Subscribers. Similarly, in rare instances, Luminex may charge a lower rate for Subscribers whose connectivity fees that Luminex pays are lower than most other Subscribers.~~ Nearly all active Subscribers (those who regularly submit orders or trading interest to the ATS) pay the base execution rate, although execution rates are negotiated between Luminex and the relevant Subscriber and may be impacted by a number of factors, including connectivity or integration costs and the type of order flow from the particular Subscriber (i.e, Subscribers with more automated or electronic order flow and/or lower connectivity costs may pay a lower rate than Subscribers with less automated order flow or higher connectivity costs). The lowest rate for any Subscriber is 25 mills (\$0.0025) per executed share. The highest rate for any Subscriber is ~~170~~ 160 mills (\$0.~~0170~~16) per executed share. Certain Subscribers pay commissions in "basis points," ranging from a low of one (1) basis point to a high of four (4) basis points. Each basis point equates to one hundredth of one percent of the notional value of the transaction. Depending on the provider, Luminex may "pass through" certain fees that it is charged by certain service bureau routers or OMS and EMS entities. These pass-through fees are fully disclosed to the applicable Subscribers and typically range from a high of 15 mills (\$0.0015) to a low of zero mills per executed share. In certain instances, these vendors may charge Luminex more than 15 mills and thus a pass through fee charged to a Subscriber that uses that router, OMS, or EMS may exceed 15 mills. In some cases, Subscribers may elect to pay a rate higher than the base execution rate, and they can also apply additional commission as part of a Commission Sharing Arrangement ("CSA") in conformance with Section 28(e) of the Securities Exchange Act of 1934. This amount above the base commission rate to be attributed to the CSA program is determined solely by the Subscriber, pursuant to a written agreement with Luminex.

The fees paid by Luminex ATS Subscribers for orders executed via LevelUp, as described in Part III Item 7(a), will be the same that such Subscribers pay for executions on the Luminex ATS. Luminex will pay a fee of 5 mills per executed share to the Level ATS for facilitating transactions involving orders routed to it via LevelUp.

b. Identify and describe any fees or charges for use of the NMS Stock ATS services that are bundled with the Subscriber's use of non-ATS services or products offered by the Broker-Dealer Operator or its Affiliates, including a summary of the bundled services and products, the structure of the fee, variables that impact the fee, differentiation among types of Subscribers, and range of fees.

Not applicable.

c. Identify and describe any rebate or discount of fees or charges required to be identified in Items 19(a) and 19(b), including the type of rebate or discount, structure of the rebate or discount, variables that impact the rebate or discount, differentiation among types of Subscribers, and range of rebate or discount.

Not applicable.

	Buyer	Qty	Auto-Ex	MKT/LMT	Min Q	Seller	Qty	Auto-Ex	MKT/LMT	Min Q	Buyer Action	Seller Action	Expected Trade Result
1	Conditional	50,000	0	MKT	5,000	Conditional	200,000	0	MKT	5,000	Firms up to 50,000	Firms up to 100,000	Trade 50,000
2	Conditional	50,000	0	MKT	25,000	Conditional	200,000	0	MKT	5,000	Firms up to 50,000	Firms up to 10,000	No trade, Min Q
3	Conditional	200,000	0	MKT	25,000	Firm	300,000	300,000	MKT	5,000	Firms up to 200,000	Firm 300,000	Trade 200,000
4	Conditional	250,000	0	MKT	5,000	Conditional	375,000	0	LMT	5,000	Firms up to 100,000	Firms up to 200,000, limit violated	No trade, limit violated
5	Conditional	300,000	0	MKT	25,000	Negotiable	125,000	10000	MKT	5,000	Firms up to 300,000	Firms up to 20,000	No trade, seller less than buyer MinQty
6	Firm	300,000	300,000	MKT	5,000	Firm	150,000	150,000	MKT	5,000	Firm 300,000	Firm 150,000	Trade 150,000
7	Negotiable	175,000	5000	LMT	5,000	Negotiable	350,000	5000	MKT	5,000	Firms up to 175,000, limit violated	Firms up to 175,000	Trade 5,000 at buyer's limit
8	Firm	190,000	190000	LMT	5,000	Negotiable	400,000	5000	LMT	5,000	Firms up to 190,000	Firms up to 400,000, limit violated	Trade 5,000 at seller's limit
9	Negotiable	150,000	5000	MKT	5,000	Negotiable	250,000	5000	MKT	5,000	Firms up to 150,000	Firms up to 250,000	Trade 150,000
10	Conditional	150,000	0	MKT	5,000	Conditional	200,000	0	MKT	5,000	Firms up to 100,000	Decline	No Trade
11	Conditional	150,000	0	MKT	5,000	Negotiable	200,000	5000	MKT	5,000	Decline	Time-Out	No Trade
12	Negotiable	190,000	190000	LMT	50	Negotiable	400,000	5000	LMT	5,000	Stock halts during negotiation	Stock halts during negotiation	No Trade
13	Conditional	200,000	0	MKT	5,000	Conditional	300,000	0	MKT	5,000	Firms up to 200,000	SSR- Firms up to 100,000	Trade 100,000
14	Conditional	150,000	0	MKT	5,000	Sell Short Conditional	200,000	0	MKT	5,000	Firms up to 100,000	SSR- Firms up to 200,000	Trade 100,000 if price is greater than current bid
15	Conditional	150,000	0	MKT	5,000	Sell Short Negotiable	200,000	5000	MKT	5,000	Firms up to 150,000	SSR- Firms up to 200,000	Trade 100,000 if price is greater than current bid
16	Firm	190,000	190000	LMT	5,000	Sell Short Negotiable	400,000	10000	LMT	5,000	Firms up to 190,000	SSR- Firms up to 400,000	Trade 190,000 if price is greater than current bid
17	Negotiable	300,000	15000	LMT	5,000	Sell Short Negotiable	250,000	10000	LMT	5,000	Firms up to 300,000	SSR- Firms up to 400,000	Trade 190,000 if price is greater than current bid