**Exhibit 3**

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**Part III: Manner of Operations**

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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.

**Answer:**

During the Regular Trading Hours, the ATS operates three different matching models: (1) a Midpoint book ("Midpoint") that only accepts non-displayed midpoint orders and executes orders at the midpoint of the prevailing NBBO at the time of the Match Event; (2) ASPEN (or the "Adverse Selection Protection Engine"), three limit order books with optional displayed capability (*i.e.*, orders in ASPEN may be marked by Subscribers as either displayed or non-displayed) which execute orders at prices that are at or between the prevailing NBBO at the time of the Match Event; and (3) IVWP, a non-displayed book that only accepts VWAP Orders and executes orders at a volume-weighted average price calculated over a fixed or floating time interval, as described in Part III, Item 7. Subscribers choose which matching model to which they send their orders. While the matching models operate under the same "market participant identifier" (or "MPID") - INCR - each matching model is distinct and does not interact with the other matching models. The Overnight Trading Session only operates the ASPEN book, and any Hosted Pools for the Overnight Trading Session will be separate from Hosted Pools during Regular Trading Hours.

The ASPEN matching model has three distinct books distinguished by different fee structures - ASPEN Fee/Fee, ASPEN Maker/Taker and ASPEN Taker/Maker. All three books act independent of each other; orders resting in one book do not rest on or interact with orders resting in another book. All three ASPEN books also operate with different MIC codes: ASPEN Fee/Fee - ASPN; ASPEN Maker/Taker - ASMT; and ASPEN Taker/Maker - ASPI. The IVWP book operates with MIC code IVWP.

The Midpoint book only accepts Midpoint Peg Orders, which are not accepted in any of the ASPEN books or the IVWP book; orders in the Midpoint book will therefore not be displayed. The IVWP book only accepts VWAP Orders, which are not accepted in Midpoint or any of the ASPEN books; orders in the IVWP book will not be displayed. Any orders entered into IntelligentCross through any other order type (*e.g.*, Market Order, Limit Order, Primary Peg Order (with or without a limit price), and Marketable Peg Order (with or without a limit price))

will default to the ASPEN Fee/Fee book. A Subscriber who wishes to trade in the ASPEN Maker/Taker or Taker/Maker books, or the IVWP book, must affirmatively identify those books when entering their order. Subscribers can route to the different books by utilizing FIX tags to specify which book to send their order to, and can also request dedicated sessions to specific books.

During the Overnight Trading Session, as defined in Part III, Item 4, the ATS matches Limit Orders to buy and sell NMS Stocks using the same scheduled Match Event matching model used by the ASPEN book during Regular Trading Hours. Because the NBBO is unavailable the majority of the Overnight Trading Session, executions are priced at the resting order's limit price within the Reference Price Band. The ATS will continue to use the Reference Price Band until the end of the Overnight Trading Session, even though the SIP is available after 4:00 am ET. The Midpoint and IVWP books are not offered during the Overnight Trading Session.

b. Are the means and facilities required to be identified in Item 11(a) the same for all Subscribers and the Broker-Dealer Operator?

☒ Yes ☐ No

If no, identify and explain any differences.

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.

**Answer:**

The ATS accepts orders in all NMS Stocks eligible for trading (*e.g.*, those that are not subject to a trading halt) and uses a matching mechanism which is near-continuous and that matches orders at scheduled times ("Match Events"). IVWP uses a separate matching process. The ATS' three different matching models - Midpoint, ASPEN, and IVWP - contain the following characteristics (any differences between the matching models will be noted accordingly).

Determination of Matching Schedule

Matching schedules are calculated using an optimization process that uses, among other things, historical performance measurements (as discussed below) from prior days' and/or current days' (in the case of Midpoint) matches. Each security has an individualized matching schedule, computed to maximize price stability after trades. The optimization process is data driven and takes into account stock by stock volatility, spreads, daily trading volume, price stability after trades and other market factors characteristic of how the specific stock recently traded in the market and on the IntelligentCross platform.

For ASPEN, matching schedules are calculated using an overnight optimization process that uses historical performance measurements from prior days' matches in the main ASPEN book. The overnight optimization process does not utilize historical performance measurements from matches from a Hosted Pool calibrated to the ASPEN book, nor from the Overnight Trading Session. Each day starts with a prepared matching schedule for each security that does not change throughout the day or the Overnight Trading Session.

For Midpoint, the matching schedule for a security may change overnight, or during the trading day if the ATS's machine-learning process determines that such change is appropriate to maximize price stability after trades. For Midpoint, while the matching schedule for a security may change during the trading day, the model governing the optimization process does not change throughout the trading day. The optimization process takes into account publicly available market data such as prior SIP trades and NBBO quotes. The optimization process does not utilize data from matches from a Hosted Pool calibrated to the Midpoint book.

The IVWP book does not use Match Event Intervals. Instead, IVWP uses VWAP Calculation Intervals to determine when executions occur. A VWAP Calculation Interval defines the period over which the ATS calculates the volume-weighted average price used for execution. IVWP supports two VWAP Calculation Interval configurations:

> *Fixed Time Interval.* The VWAP Calculation Interval is a fixed duration specified at order entry. The execution time is determined at the time the order is matched, *i.e.*, once an order is paired with a contra-side order, the VWAP Calculation Interval begins and the execution will occur at the end of that interval at the calculated VWAP price.
>
> *Floating Time Interval*. The VWAP Calculation Interval is defined by a target percentage of the stock's consolidated volume. The execution time will vary based on the time required for the stock to print the volume specified by the order's percentage-of-volume instruction on the consolidated tape. Once a match is identified, the VWAP Calculation Interval begins and concludes when the target volume has been printed.

The ATS's Impute Match uses estimated equivalences between fixed and floating time intervals to determine matches among eligible orders. The Impute Match for IVWP will operate the same as it does for VWAP Orders in the Hosted Pools. See Part III, Item 7. Additionally, for VWAP Orders with floating time interval instructions, if the match completes its full target volume before the VWAP Calculation Interval elapses, then the execution can occur at or after as the System Minimum VWAP Time and before the VWAP Calculation Interval. However, if a counterparty cancels the match before the System Minimum VWAP Time, then no fill is returned. See Part III, Item 7.

There is no human intervention or discretion involved in any change to the matching schedule during the trading day, and any such change does not alter any conditions (including price) of any orders nor is it aware of or responsive to any customer specific information.

Match Events in each security occur at scheduled times as determined by the ATS' matching algorithm. Match schedules are defined by "minimum/maximum time bands" for each security ("Match Event Intervals"). Midpoint has Match Event Intervals between 150 microseconds and up to 200 milliseconds that are calibrated on a security-by-security basis. ASPEN's Match Event Intervals can have a minimum time of 150 microseconds and a maximum time of 900 microseconds (*i.e.*, the maximum time for scheduling a match event is capped at 900 microseconds), also calibrated on a security-by-security basis. For example, on a particular day, the match event band for XYZ stock may have a minimum time of 450 microseconds and a maximum time of 600 microseconds. The actual match event time is randomized within the match event band throughout the course of the trading day.

Execution of Orders and Match Events

Any order for a security that arrives prior to a Match Event for that security (and that has not been canceled, has become unmarketable, or has been repriced prior to the match event) will be eligible to participate in the next Match Event. Match Events are scheduled continuously while the IntelligentCross book is in a "matchable state" (*i.e.*, there is an order on each side eligible to match); if there are no orders for a stock in the book, no Match Event will be scheduled. An incoming order that will make the book potentially matchable will trigger a scheduling of a Match Event if one has not already been scheduled.

The matching process is completely symmetric, *i.e.*, the match times within IntelligentCross are not chosen to favor a particular side of the trade. No Subscribers (or non-Subscribers accessing IntelligentCross through a Subscriber) are given any type of priority through the matching process, and the matching process is blind to the identity of the Subscriber (or a non-Subscriber accessing IntelligentCross through a Subscriber). Both sides of the trade (buyers and sellers) are on equal footing for the next scheduled match, while maintaining full control of their orders - both sides can cancel or update their orders at any time prior to the match.

Open orders may be amended to the extent the amendment is received before a match event involving that order occurs. Order amendments are processed in the order in which they are received by the ATS. The match priority of an order will be preserved when amending the quantity of an order to a value less than the existing quantity of the order; however, the match priority of an order will be lost when amending the quantity of an order to a value greater than the existing

quantity or when amending any other value in addition to the quantity of the order.

An open order also may be canceled to the extent the cancellation order is received before a match event involving that order occurs. The ATS will automatically update its quotations, and all quotation updates, including those due to new or canceled orders, are immediate.

*Midpoint Match Event Intervals*

At each Match Event for each security in Midpoint, the matching engine for the Midpoint book will retrieve the current NBBO and check its book for orders that can be matched. Orders eligible for matching will be matched in time priority at the NBBO midpoint price at the Match Event. The purpose of the scheduled matches is to achieve two objectives: (1) provide for as many matches as possible to maximize liquidity; and (2) match at times where the NBBO is projected to be as stable as possible for a period of time after executions occur on the ATS. During the time between Match Events, Subscribers have full order control and can cancel or reprice orders until the next Match Event.

The ATS then analyzes the possible executions that can occur on the ATS and adjusts the Match Event Interval to achieve the two objectives described above. The optimization process takes into account publicly available market data such as prior SIP trades and NBBO quotes. The optimization process is data driven and takes into account stock by stock volatility, spreads, daily trading volume, price stability after trades and other market factors characteristic of how the specific stock recently traded in the market and on the IntelligentCross platform.

The ATS makes a determination as to whether the Match Event Intervals for each security should be increased, decreased, or stay the same. The Match Event Intervals per security are adjusted after enough data points have been accumulated to warrant an adjustment. The Match Event Intervals for Midpoint may be recalibrated throughout the day. Registered Persons of the ATS review and approve such changes.

*ASPEN Match Event Intervals*

ASPEN will have Match Event Intervals between 150 and 900 microseconds that are calibrated on a security-by-security basis. The process for determining the Match Event Intervals for ASPEN is similar to that for Midpoint but Match Event Intervals are calibrated separately such that, for any given security, the Match Event Intervals for ASPEN will be different from the Match Event Intervals for Midpoint. The Match Event Intervals for the three ASPEN books will be the same for a given security.

The ATS makes a daily determination as to whether the Match Event Intervals for each security should be increased, decreased, or stay the same. For the Overnight Trading Session, the scheduling of Match Events is the same as the schedule used in the prior Regular Trading Hours. Any changes based on the overnight optimization process will not be implemented until the start of the Regular Trading Hours the following day.

*Midpoint Minimum Resting Period*

For Midpoint, only orders that have rested on the order book for a minimum period of time are eligible to match. "Minimum Resting Periods" are determined by the ATS and set in a stock-specific fashion, similar to Match Events. The purpose of these periods is to further reduce adverse selection. However, in no event will the minimum resting period exceed 200 milliseconds. There are no Minimum Resting Periods for orders on ASPEN.

*Anti-Internalization*

The ATS provides an "anti-internalization" setting to its Subscribers. This setting can be enabled upon client request and will prevent the self-matching of two orders from the same Subscriber on the ATS's order books. This setting will not be enabled by default, but can be enabled upon Subscriber request and will be enforced by the Client ID setting. Subscribers can either contact IntelligentCross Trading Operations to enable this functionality on an MPID basis or they can configure the trading systems to prevent self-crossing at a client or trading desk level.

*Locked or Crossed Market*

During Regular Trading Hours, the ATS will not match if the NBBO as determined by the SIP and/or SRO proprietary data feeds for the stock is crossed (where the NBB price exceeds the NBO price) or if the NBBO as determined by the SIP and/or other SRO proprietary data feeds is locked (where the NBB price equals the NBO price). In ASPEN, if a displayed Limit Order or Primary Peg Order would lock or cross displayed contra-side interest inside the ATS or the NBBO, such order will be displayed one minimum price variation less aggressive than the price of the displayed contra-side interest inside the ATS or as part of the NBBO and ranked at the price of the contra-side of the NBBO, up to the order's limit price. In the event the displayed contra-side interest inside the ATS or the NBBO updates, such order's displayed price will be updated to the most aggressive price permissible without locking displayed contra-side interest inside the ATS or as part of the NBBO, up to the order's limit price, and such order's ranked price will be updated to the most aggressive price permissible without crossing the NBBO, up to the order's limit price.

Locked or crossed markets do not occur during the Overnight Trading Session. All orders entered during the Overnight Trading Session reside on the ASPEN book and there is no NBBO reference, therefore a buy order priced at or above the best resting offer, or a sell order priced at or below the best resting bid, results in an execution rather than a locked or crossed market.

*Sub-Dollar Pricing*

For orders in Midpoint, in the event that the NBB is less than $1.00, the ATS will execute orders at the midpoint price, regardless of the number of decimal places.

For orders in ASPEN during Regular Trading Hours, in the event that the NBB is less than $1.00, the ATS will execute orders at valid prices within the NBBO. For orders in the Overnight Trading Session, in the event that the Reference Price is less than $1.00, the ATS will execute orders at valid prices within the Reference Price Bands.

For orders in IVWP, in the event that the NBB is less than $1.00, the ATS will calculate the VWAP price from eligible trades on the consolidated tape in the same manner as for stocks with an NBB at or above $1.00. The resulting execution price may include more than four decimal places.

*Orders Eligible for Matching*

With respect to the Midpoint book, the following orders will be eligible for matching during a Match Event:

1. Midpoint Peg Orders that are buy orders with limit prices equal to or higher than NBBO midpoint.
2. Midpoint Peg Orders that are sell orders with limit prices equal to or lower than NBBO midpoint.
3. Midpoint Peg Orders without limit prices.

Midpoint Peg Orders also may be designated with Time-in-Force instructions.

With respect to the ASPEN books, the following orders will be eligible for matching during a Match Event:

1. Primary Peg Orders with no limit price or those with limit prices that are within the prevailing NBBO at the time of a Match Event.
2. Market Peg Orders with no limit price or those with limit prices that can execute within the prevailing NBBO at the time of a Match Event.
3. Limit Orders with limit prices that are within the prevailing NBBO at the time of a Match Event.
4. Market Orders.

*Match Priority Criteria*

Midpoint Match Priority Criteria

In Midpoint, orders eligible for matching will be matched in time priority at the NBBO midpoint price at the Match Event. Only orders that have rested on the Midpoint book for a minimum period of time (*i.e.*, the Midpoint Minimum Resting Period) are eligible to match. An order on the Midpoint book for less than its Midpoint Minimum Resting Period would not be eligible to participate in any Match Events but would be eligible for all subsequent Match Events after satisfying its Midpoint Minimum Resting Period.

Following are some examples of how the IntelligentCross match priority criteria works for the Midpoint book.

Example 1: The assumptions include:

- The NBBO for Security XYZ is $10.10 x $10.12
- Subscriber A has a resting Midpoint Peg Order to sell 100 shares of Security XYZ with a limit of $10.11.
- Subscriber B has submitted a Midpoint Peg Order to buy 100 shares of Security XYZ with a limit of $10.11.
- The Midpoint book enters into a "matchable state" (*i.e.*, there is an order on each side eligible to match) and a Match Event is scheduled.
- Security XYZ has a Match Event Interval between 1000 to 1300 microseconds, and in this example the Match Event is scheduled to occur in 1100 microseconds.
- During the 1100 microseconds, Subscriber C has submitted a Midpoint Peg Order to buy 100 shares of Security XYZ with a limit of $10.11.
- At the next scheduled Match Event for Security XYZ, the matching engine retrieves the NBBO and determines that the NBBO is still $10.10 by $10.12. As a result, the following executions occur during the Match Event (assuming all orders have met the Midpoint Minimum Resting Period):
- Subscriber A will match 100 shares with Subscriber B at $10.11.
- Subscriber C's order will not match with Subscriber A as orders will be matched in time priority at the NBBO midpoint price at the Match Event. Subscriber C's order will be eligible for the next Match Event.

Example 2: Assume in the above Example 1 that Subscriber C has submitted a Midpoint Peg Order to buy 100 shares of Security XYZ with limit of $10.12. At Match Event time:

- Subscriber A will match 100 shares with Subscriber B at $10.11.

While Subscriber C has submitted a more aggressively priced order, Subscriber C's order will not match with Subscriber A as orders in Midpoint will be matched in time priority at the NBBO midpoint price at the Match Event. Subscriber C's order will be eligible for the next Match Event.

ASPEN Match Priority Criteria

In ASPEN, both Regular Trading Hours and Overnight Trading Session, orders eligible for matching will be matched based on price, display type (*i.e.*, with respect to ASPEN, at each price level, displayed orders will have priority over non-displayed orders), and the time at which such orders are received relative to other orders. Such match priority now applies throughout the matching process, *i.e.*, before and after the ASPEN book enters into a matchable state.

Any order for a security that arrives prior to a Match Event for that security (and that has not been canceled, has become unmarketable, or has been repriced prior to the match event) will be eligible to participate in that Match Event. In addition, in Match Events, at the time of execution, price improvement (if there is any) will be provided to the order with the later effective timestamp between two orders receiving an execution, *i.e.*, the taker.

Examples

Following are some examples of how the IntelligentCross match priority criteria works for the ASPEN book.

Example 1: The assumptions include:

- Subscriber A has submitted a displayed 100 share sell limit order with a limit price of $10.00 and TIF of Day for Security XYZ.

- Subscriber B has submitted a displayed 100 share buy limit order with a limit price of $10.00 and TIF of Day for Security XYZ.

- Subscriber B's order will be displayed at $9.99 as, in ASPEN, if a displayed limit order would lock contra-side interest inside the ATS, such order will be displayed one minimum price variation less aggressive than the price of the displayed contra-side interest inside the ATS.

- The ASPEN book enters into a "matchable state" (*i.e.*, there is an order on each side eligible to match) and a Match Event is scheduled.

- Security XYZ has a Match Event Interval between 175 to 250 microseconds, and in this example the Match Event is scheduled to occur in 180 microseconds.

- During the 180 microseconds (*i.e.*, after the ASPEN book enters into a matchable state) and before the Match Event occurs, Subscriber C submits a non-displayed 100 share sell limit order with a limit price of $9.99 and TIF of Day for Security XYZ.

At the next scheduled Match Event for Security XYZ, the matching engine retrieves the NBBO and determines that the NBBO is $9.99 by 10.00. As a result, the following executions occur during the Match Event:

- Subscriber B will match 100 shares with Subscriber C at $10.00, as Subscriber C has the more aggressively priced order, and Subscriber C (*i.e.*, the taker) will be price improved and will receive an execution. Subscriber A's order will be eligible for the next Match Event.

Example 2: Assume in the above Example 1 that Subscriber B had 200 shares to buy. At Match Event time:

- First, Subscriber C will match 100 shares with Subscriber B at $10.00 as Subscriber C has the more aggressively priced order, and Subscriber C (*i.e.*, the taker) will be price improved and will receive an execution.

- Second, Subscriber A will match 100 shares with Subscriber B at $10.00.

Example 3: Assume in the above Example 1 that during the 180 microseconds (*i.e.*, after the ASPEN book enters into a matchable state) and before the Match Event occurs, Subscriber C cancels its order. At Match Event time:

- Subscriber A will match 100 shares with Subscriber B at $10.00 (*i.e.*, there is no change to this example due to the change in match priority criteria).

Example 4: Assume in the above Example 1 that:

- Subscriber A has submitted a non-displayed 100 share sell limit order with a limit price of $10.00 and TIF of Day for Security XYZ.

- Subscriber C has submitted a displayed 100 share sell limit order with a limit price of $10.00 and TIF of Day for Security XYZ.

At Match Event time:

- Subscriber C will match 100 shares with Subscriber B at $10.00.
- Subscriber A will not match as, with respect to ASPEN, at each price level, displayed orders (Subscriber C) will have priority over non-displayed orders (Subscriber A).

Example 5: Assume in the above Example 1 that:

- Subscriber A has submitted a non-displayed 100 share sell limit order with a limit price of $10.00 and TIF of Day for Security XYZ.
- Subscriber B has submitted a displayed 100 share sell limit order with a limit price of $10.00 and TIF of Day for Security XYZ.
- Subscriber C submits a non-displayed 100 share buy limit order with a limit price of $10.00 and TIF of Day for Security XYZ.

At Match Event time:

- Subscriber C will match 100 shares with Subscriber B at $10.00
- Subscriber A will not match as, with respect to ASPEN, at each price level, displayed orders (Subscriber B) will have priority over non-displayed orders (Subscriber A).

*Reference Price Bands; Pricing in Overnight Trading Session*

As described in Part III, Item 7, the ATS does not reference the NBBO during the Overnight Trading Session and instead applies a 20% Reference Price Band derived from the 7:30 pm ET Reference Price. The ATS accepts orders priced outside the applicable Reference Price Band, but does not execute any order at a price outside the Reference Price Band. Those orders outside of the Reference Price Band rest and may execute only at prices within the Reference Price Band. Orders that are not executable are not disseminated through the IQX Data Feed as described in Part III, Item 15.

<u>IVWP Match Priority Criteria</u>

The IVWP book accepts only VWAP Orders. The ATS continuously evaluates resting VWAP Orders in the IVWP book for eligible contra-side matches. For fixed time orders, all orders priced greater than or equal to the far touch

(satisfying marketability constraints) will be matched using MPID, size, and time priority. For floating time orders, all orders priced greater than or equal to the far touch (satisfying marketability constraints) will be matched using MPID, size, participation rate, and time priority. VWAP Orders in the IVWP book only match with other VWAP Orders in the IVWP book and do not interact with orders in Midpoint or ASPEN.

When an eligible contra match is identified, the ATS initiates the invitation and firm-up process as described in Part III, Item 7. Once both counterparties have firmed up, the VWAP Calculation Interval begins. The mechanics of the VWAP Calculation Interval, including execution price determination, cancellation behavior, partial fills, limit price breaches, and end-of-day procedures, are as described in Part III, Item 7. IVWP matching operates independently of the Match Events used by Midpoint and ASPEN.

For the avoidance of doubt, orders submitted to the IVWP book will match in an all-to-all context with broker preferencing, where among competing matches, a Subscriber's orders will first match against that Subscriber's own orders, then against other orders in the IVWP book.

Within the IVWP book, Subscribers may allow or prevent the matching of their orders against specific counterparties. Subscribers participating in the IVWP book have the ability to allow or prevent the matching of their orders against a specific contra MPID or group of MPIDs using a predefined list. In addition, Subscribers who agree to identify the sources of their order flow sent to IVWP (*e.g.*, Algo, SOR, DMA) and receive a unique identifier for those sources will be provided with a list of other Subscribers that have similarly agreed to such identification, and their respective flow types (the "IVWP Subscriber Roster"). The IVWP Subscriber Roster is prepared by the ATS, distributed to authorized Subscribers in a secure manner, and includes the ATS-generated unique identifier for counterparty selection, the Subscriber's MPID, and the Subscriber's self-identified source of order flow. Such identifications are for the purpose of defining counterparty selection preferences.

The IVWP Subscriber Roster is provided solely for the purpose of enabling Subscribers to define counterparty selection preferences in the IVWP book, specifically to allow Subscriber to specify orders to only interact with certain types of order flow (*e.g.*, Algo, SOR, DMA) from specific Subscribers. The IVWP Subscriber Roster is not distributed to Subscribers not participating in IVWP, Subscribers participating in IVWP who have not agreed to identify the sources of their order flow, non-Subscribers, or other third parties. Subscribers may opt-in to counterparty selection preferences at any time. The use of this functionality is optional, and is not required to participate in the IVWP book.

Hosted Pools

The ATS may setup a Hosted Pool, at the request of a Subscriber, where such Subscriber will designate that an order interact with other orders entered by that same Subscriber, or other Subscribers participating in the same Hosted Pool. Hosted Pools are described in more detail in Part III, Items 7 and 9. An order designated to interact within a Hosted Pool can be designated to only interact with that Hosted Pool or can also be designated to interact with liquidity outside the Hosted Pool after checking for liquidity available in that Hosted Pool, as described further in Part III, Item 7. An order designated to interact with liquidity outside the Hosted Pool in the ASPEN book cannot be displayed. Hosted Pools are eligible to participate in the Overnight Trading Session, as described in Part III, Item 4, consistent with order types and attributes discussed in Part III, Item 7. The Hosted Pools for the Overnight Trading Session will be separate from Hosted Pools during Regular Trading Hours and use a dedicated FIX session that is separate from the FIX session(s) used for Regular Trading Hours, as described in Part III, Item 5.

Unless otherwise stated, the ATS' matching and trading rules apply to the Hosted Pools in the same manner as the ATS. An order designated to interact within a Hosted Pool that also is designated to interact with liquidity outside the Hosted Pool does not receive a new timestamp when determining eligibility to match against orders in the main books. Orders and order modifications are timestamped on arrival to the ATS and those timestamps do not change. An order that is eligible to match in the main books after checking for liquidity available in a Hosted Pool complies with the priority rules in the main book based on its timestamp. There is no Minimum Resting Period for any order type in a Hosted Pool.

The match priority criteria in a Hosted Pool are generally the same as in the ATS main books, excluding those Hosted Pools configured with specific match priority criteria (excluding VWAP orders) as described in this Item. In Hosted Pools, orders eligible for matching will be matched based on price and the time at which such orders are received relative to other orders (as orders designated to interact with other orders in a Hosted Pool are not eligible to be displayed orders). In the ASPEN main book, orders eligible for matching will be matched based on price, display type (*i.e.*, with respect to ASPEN, at each price level, displayed orders will have priority over non-displayed orders), and the time at which such orders are received relative to other orders. Within the Hosted Pools, the ATS offers, at the request of a Subscriber, the ability to configure a Hosted Pool such that their own firm’s orders are preferenced in a multi-broker Hosted Pool prior to being eligible to match against other broker orders; such configuration is set on the entire Hosted Pool and not on an order-by-order basis.

Subscribers participating in a Hosted Pool may request that orders designated for the Midpoint book and the ASPEN book have the ability to interact with each other inside the Hosted Pool. When such an option is selected, any eligible orders will interact at each Match Event, regardless if the next Match Event is for Midpoint

book-eligible orders or ASPEN book-eligible orders. The Block IOI service offered in the Hosted Pool is available for the Midpoint book only, and is only available at the request of a Subscriber that requested that the Hosted Pool be set up. VWAP Orders are only eligible in Hosted Pools during Regular Trading Hours at the request of the Subscriber that requested that the Hosted Pool be set up, as described in Part III, Item 7.

Within the Hosted Pools, the ATS offers the ability to allow or prevent the matching of orders according to custom keys specified by a Subscriber via FIX tags. See Part III, Item 14 for more information. This functionality allows a Subscriber to control which orders can match with other orders in a Hosted Pool. For example, a buy order sent with a "prevent" instruction and a key equal to "1 2 3", will not be able to match against an order that includes a key of either "1", "2" or "3." Conversely, a buy order with an "allow" key of "4 5" can only match with orders containing a key of either "4" or "5".

Within the Hosted Pools, the ATS offers, at the request of a Subscriber that requested that the Hosted Pool be set up, a price improvement logic that will split any overlap in effective limit prices at a fixed level set for each Hosted Pool. For every trade in such a Hosted Pool, a specified percentage of the overlap will go to the liquidity provider and the remaining percentage will go to the liquidity taker (with the total percentage equaling 100%). The effective limit price for each order in the Hosted Pool is determined as the less aggressive of the peg instruction, limit price, and/or prevailing NBBO.

For example, suppose that the specified percentage is set at 75% of the overlap for liquidity provider and 25% for liquidity taker and suppose that a buyer has a posted order in a Hosted Pool at a limit price of $10.01. Subsequently, a seller sends an order with a limit price of $10.00, creating a $0.01 overlap. The liquidity provider (the buyer) will receive 75% of the overlap and the liquidity taker (the seller) will receive 25% of the overlap, and these two orders will be crossed at a price of $10.0025.

Within the Hosted Pools, the ATS offers, at the request of a Subscriber, where orders are designated to interact within multiple Hosted Pools, the ability to set a configured preference for the sequence of the Hosted Pools in which the Subscriber's orders will interact within those multiple Hosted Pools, as additionally described in Part III, Item 7. For example, if the Subscriber wants to configure the sequencing to first go to Hosted Pool B, then Hosted Pool A, then the order will first match with the match priority criteria designated (for example, price/time priority) in Hosted Pool B, and, if the order has not been fully executed, then it will proceed to Hosted Pool A and match according to the match priority criteria in such Hosted Pool.

Such sequencing, as described above, may supersede the match priority criteria for, and therefore the prices received by, a particular order in the Hosted Pools. For

example, orders in Hosted Pools can be made eligible to access both continuous and non-continuous Hosted Pools. In such cases, an order tagged for both a continuous and a non-continuous Hosted Pool will first interact with the continuous Hosted Pool and, if the order is not fully executed in such Hosted Pool, it will then interact with the non-continuous Hosted Pool, *i.e.*, continuous Hosted Pools will have preference for matching over non-continuous Hosted Pools.

Within the Hosted Pools, the ATS offers, at the request of a Subscriber that requested that the Hosted Pool be set up, to specify that matching should be continuous in an individual Hosted Pool. If the Hosted Pool is marked as continuous, orders are matched immediately after each new order, replace or NBBO update is received, if the new event makes corresponding continuous pool orders matchable. This continuous matching functionality is only available in Hosted Pools and is different than, and without regard to, the near-continuous matching mechanism in the main ATS books. Orders in Hosted Pools also can be made eligible to access both continuous and near-continuous Hosted Pools. In such cases, an order tagged for both a continuous and a near-continuous Hosted Pool will first interact with the continuous Hosted Pool and, if the order is not fully executed in such Hosted Pool, it will then interact with the near-continuous Hosted Pool, *i.e.*, continuous Hosted Pools will have preference for matching over near-continuous Hosted Pools.

Each Hosted Pool may be configured with one of the following match priority criteria, at the request of the Subscriber that requested that the Hosted Pool be set up, which determines how orders are prioritized during a Match Event, and applies to all Match Events in that Hosted Pool. The ATS will file any required amendments regarding Hosted Pools that will use specific match priority criteria and any required updates to such criteria.

The match priority criteria are:

- Price/Time (default). Orders are matched in price/time priority, meaning that orders eligible for matching will be matched based on price and then the time at which such orders are received relative to other orders.
- Pro-Rata by Size. Orders eligible for matching at the same price are allocated a proportion of the contra quantity based on their relative size.
- Price-Size. Orders eligible for matching at the same price are ranked by their size, where larger orders have higher priority, and filled according to their ranked size ordering.
- Random. Orders eligible for matching at the same price are re-ranked in random priority at the time of the Match Event, and filled sequentially according to the randomized ordering.
- Random Weighted. Orders eligible for matching at the same price are re-ranked according to a random weighting by participant, and filled

sequentially according to the weighted random ordering. Weights are determined at the request of the Subscriber that requested that the Hosted Pool be set up (for example, weights could be based on Subscriber preference, or on historical participant activity in that specific Hosted Pool as determined by internal ATS data, which is not shared with the Subscriber that requested that the Hosted Pool be set up) and can be updated periodically by the request of the Subscriber that requested that the Hosted Pool be set up.

At this time, there is a Hosted Pool utilizing the random match priority criteria. The Hosted Pool is one-to-many Hosted Pool (*i.e.*, the Subscriber on behalf of whom the Hosted Pool was set up will be the counterparty to the other Subscribers that were invited by the Subscriber setting up the Hosted Pool to participate in such Hosted Pool). The Hosted Pool will accept pegged orders (Midpoint Peg Orders, Primary Peg Orders, and Marketable Peg Orders), Limit Orders, Market Orders, and Conditional Orders. See Part III, Items 7 and 9 for more detail on such order types. IOI, Block IOI, and VWAP orders are not available in the Hosted Pool. Furthermore, the Hosted Pool will only be available during Regular Trading Hours. Orders eligible for matching at the same price are re-ranked in random priority at the time of the Match Event, and filled sequentially according to the randomized ordering. There is no price improvement logic enabled for the Hosted Pool. The Hosted Pool will not be configured to allow the Hosted Pool to begin trading coincident with the Primary Market Open for each security as reported on the consolidated tape, as discussed in Part III, Item 10. The Hosted Pool will follow the Match Event Interval for the Midpoint book or ASPEN book, as applicable. The Hosted Pool will not be configured on the Hosted Pool level for a Subscriber to request that their own firm's orders are preferenced in a multi-broker Hosted Pool prior to being eligible to match against other broker orders, nor will it be set up to specify that matching should be continuous in an individual Hosted Pool. Unless otherwise noted, the Hosted Pool disclosures in Part II, Items 5 and 7, Part III, Items 2, 3, 4, 5, 7, 8, 9, 10, 14, 15, 19, and this Item apply to the Hosted Pool.

General Match Priority Criteria Information

Matching instructions are specified in accordance with the FIX protocols described above in Part III, Item 5 and defined by industry standard FIX tags defined for these matching instructions.

Orders received by the ATS during the Pre-Market Order Acceptance Period will be queued until the beginning of Regular Trading Hours. Orders received outside these periods will not be accepted unless they are submitted to the Overnight Trading Session. For all eligible securities, the ATS will only execute if Limit-Up-Limit-Down ("LULD") bands are present and the effective price of a potential match is not constrained by a LULD band. Orders executed during the Overnight Trading Session are subject to the Reference Price Bands described above.

For purposes of the operation of the ATS, all orders will be timestamped upon receipt by the ATS in nanoseconds; however, the ATS has the ability to provide order records in microseconds or milliseconds via FIX.

An amendment of an outstanding order will affect its match priority and Minimum Resting Period as follows:

1. If an order's size is decreased, its timestamp will remain the same, its priority will not change and it will not wait through a new Minimum Resting Period (in the case of Midpoint).
2. If an order's size is increased, the timestamp will be renewed, its priority will change and, if part of Midpoint, it will wait through a new Minimum Resting Period.
3. If an order's price is changed, the timestamp will be renewed, its priority will change and, if part of Midpoint, it will wait through a new Minimum Resting Period.

IntelligentCross conducts trading strictly in an agency capacity on the ATS. IntelligentCross does not conduct trading in a proprietary capacity.

*Non-Match Events*

Situations may occur where an incoming order may not execute against a resting order at match event time, such as when:

(1) an existing resting order cancels prior to the next match event
(2) an incoming order is canceled prior to the next match event
(3) the NBBO moves between the time an order is received and the next match event takes place, making either the incoming order or the resting order non-marketable
(4) the NBBO changed before the next match event and pegged orders were repriced to the new NBBO, making the incoming order or the resting pegged order non-marketable

*Execution Errors*

The ATS has written supervisory policies and procedures in place to handle trade execution errors and "clearly erroneous trades." Each potential error situation will be evaluated by the ATS's personnel on a case by-case basis.

If a trade is transacted in error and it is determined that the error was due to a system failure or other issue with the ATS's platform that resulted in a poor execution (*i.e.*, outside the NBBO), the ATS will contact each of the Subscribers associated with the error cross trade and inform them that the ATS is canceling the trade. The ATS will then initiate the cancel on the ATS and communicate with the respective FINRA TRF the trade report cancellation for each side of the cross trade.

In the instances in which the trade was good (*i.e.*, inside the NBBO), and as a result of a systems issue, the ATS failed to acknowledge the execution to one of the two Subscribers associated with the error cross trade transacted on the ATS, the ATS will contact the affected Subscriber and ask whether or not they want to maintain (keep) the trade. If the Subscriber does not want to maintain the trade, the ATS will take the affected Subscriber's position and book it to IntelligentCross' error account. IntelligentCross will then instruct IntelligentCross' clearing broker to trade out of the error position. An IntelligentCross employee will book the error position and subsequently close-out the transaction through IntelligentCross' error account for settlement purposes and document within IntelligentCross' systems all details regarding the error transaction(s). The error transaction detail will include all details surrounding the error trade(s) and subsequent close-out trades (if any). The detail will also include an identification of all associated parties, the cause/reason for the error, or details surrounding Subscriber contact(s). The error trade detail will then be reviewed and electronically signed off as "compliance review" by the CCO or his designee and subsequently reviewed and signed off on as "Supervisory Review" by IntelligentCross' CEO or his/her supervisory principal designee.

The ATS will also ensure accurate CAT reporting.

With respect to a market wide event that may contain clearly erroneous transaction, the ATS monitors all email notification regarding clearly erroneous transactions. Upon receipt of a clearly erroneous e-mail notification, the ATS will immediately review the ATS's trading activity during the relevant timeframe to determine whether or not the ATS traded the securities referenced in the notification. The ATS will then take immediate action (if any executions have been identified through the review) to reverse the trades upon the ATS and the respective FINRA TRF. A file in IntelligentCross' systems will be created that documents any FINRA TRF reversals that have been performed as a result of a clearly erroneous notification.

The ATS's written supervisory procedures for execution errors and clearly erroneous transactions also apply to the Overnight Trading Session.

*Order Entry Restrictions*

The ATS will not accept orders that reference a symbol not authorized for trading (*e.g.*, if there is a trading halt). The minimum price variation ("MPV") for orders received by the ATS during both the Regular Trading Hours and Overnight Trading Session shall be $0.01 for orders priced $1.00 or greater, and $0.0001 for orders priced below $1.00. Orders received with increments below the MPV will be rejected.

Sell orders must be designated as long, short or short exempt in the event there is a short sale restriction in place during both the Regular Trading Hours and the Overnight Session. Subscribers are responsible for the compliance of their trades with all short sale locate and delivery rules and regulations.

*Anonymity*

All orders and executions are anonymous as to and between Subscribers. Subscribers are only made aware of IntelligentCross as a party or contra-party on orders and executions.

The ATS does not provide any means of communication between Subscribers. There is no negotiation, chat, instant message, indication of interest, "Flash Order," or similar functionality provided.

d. Are the established, non-discretionary rules and procedures required to be identified in Item 11(c) the same for all Subscribers and the Broker-Dealer Operator?

☐ Yes ☒ No

If no, identify and explain any differences.

**Answer:** For the random match priority criteria Hosted Pool, Subscribers are subject to counterparty selection as discussed in Part III, Item 14. As a result, not all Subscriber will be able to access the random match priority criteria Hosted Pool unless they are invited by the Subscriber on behalf of whom the Hosted Pool was set up for.

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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.

**Answer:**

Anti-Internalization

The ATS provides an "anti-internalization" setting to its Subscribers. This setting can be enabled upon client request and will prevent the self-matching of two orders from the same Subscriber on the ATS's order books. This setting will not be enabled by default, but can be enabled upon Subscriber request and will be enforced by the Client ID setting. Subscribers can either contact IntelligentCross Trading Operations to enable this functionality on an MPID basis or they can

configure the trading systems to prevent self-crossing at a client or trading desk level.

Hosted Pool

The ATS may setup a Hosted Pool, at the request of a Subscriber, where such Subscriber will designate that an order interact with other orders entered by that same Subscriber, or other Subscribers participating in the same Hosted Pool. The setup of a Hosted Pool is at the ATS's discretion, and the ATS will determine whether or not to offer Hosted Pool functionality on a Subscriber-by-Subscriber basis, with the ATS making its determination based on current and expected order flow volume.

Each individual Hosted Pool participation is limited to the Subscriber on behalf of whom the Hosted Pool was set up and those Subscribers that were invited by the Subscriber setting up the pool to participate in such Hosted Pool.

Unless otherwise indicated, the matching and trading rules in a Hosted Pool are the same as in the applicable ATS book. Subscribers participating in a Hosted Pool may request that orders designated for the Midpoint book and orders designated for the ASPEN book have the ability to interact with each other in the Hosted Pool. When such an option is selected, any eligible orders will interact at each Match Event, regardless if the next Match Event is for Midpoint book-eligible orders or ASPEN-eligible orders.

Within the Hosted Pools, the ATS offers, at the request of a Subscriber, the ability to configure a Hosted Pool such that their own firm orders are preferenced in a multi-broker Hosted Pool prior to being eligible to match against other broker orders; such configuration is set on the entire Hosted Pool and not on an order-by-order basis.

Within the Hosted Pools, the ATS offers the ability to allow or prevent the matching of orders according to custom keys specified by a Subscriber via FIX tags. This functionality allows a Subscriber to control which orders can match with other orders in a Hosted Pool. For example, a buy order sent with a "prevent" instruction and a key equal to "1 2 3", will not be able to match against an order that includes a key of either "1", "2" or "3." Conversely, a buy order with an "allow" key of "4 5" can only match with orders containing a key of either "4" or "5". Such functionality can be used across different Hosted Pools in which the Subscriber participates.

Within the Hosted Pools, the ATS offers a feature whereby Subscribers participating in a Hosted Pool have the ability to allow or prevent the matching of their orders against a specific contra MPID or group of MPIDs using a predefined list.

Within the Hosted Pools, the ATS offers a "Linked Orders" feature that allows a Subscriber to designate orders as pre-arranged matches. Orders designated as Linked Orders carry a Subscriber-specified linked identification ("Link ID") and may only interact and execute against opposing orders that carry the same Link ID. The Linked Orders feature is available only for orders within the same MPID. Where the anti-internalization setting described above is also configured for an order, the anti-internalization setting will supersede the Linked Orders designation for purposes of self-cross prevention.

The ATS offers sponsored access arrangements to allow Sponsored Firms to send firm orders directly to a designated Hosted Pool via a sponsored access FIX session of a Sponsor. Such arrangements are only available to those Sponsored Firms of a Sponsor; Sponsors will be required to create lists of approved Sponsored Firms. Sponsors can determine which Sponsored Firms on its list can participate in sponsored access arrangements on a symbol-by-symbol basis and may offer different terms to different Sponsored Firms, even within the same symbol.

IVWP Book

For the avoidance of doubt, orders submitted to the IVWP book will match in an all-to-all context with broker preferencing, where among competing matches, a Subscriber's orders will first match against that Subscriber's own orders, then against other orders in the IVWP book. Anti-internalization is also available in the IVWP book. ~~Additionally, within~~

Within the IVWP book, Subscribers may allow or prevent the matching of their orders against specific counterparties. Subscribers participating in the IVWP book have the ability to allow or prevent the matching of their orders against a specific contra MPID or group of MPIDs using a predefined list. In addition, Subscribers who agree to identify the sources of their order flow sent to IVWP (*e.g.*, Algo, SOR, DMA) and receive a unique identifier for those sources will be provided with a list of other Subscribers that have similarly agreed to such identification, and their respective flow types (the "IVWP Subscriber Roster"). The IVWP Subscriber Roster is prepared by the ATS, distributed to authorized Subscribers in a secure manner, and includes the ATS-generated unique identifier for counterparty selection, the Subscriber's MPID, and the Subscriber's self-identified source of order flow. Such identifications are for the purpose of defining counterparty selection preferences.

The IVWP Subscriber Roster is provided solely for the purpose of enabling Subscribers to define counterparty selection preferences in the IVWP book, specifically to allow Subscriber to specify orders to only interact with certain types of order flow (*e.g.*, Algo, SOR, DMA) from specific Subscribers. The IVWP Subscriber Roster is not distributed to Subscribers not participating in IVWP, Subscribers participating in IVWP who have not agreed to identify the

sources of their order flow, non-Subscribers, or other third parties. Subscribers may opt-in to counterparty selection preferences at any time. The use of this functionality is optional, and is not required to participate in the IVWP book.

The ATS offers the Linked Orders feature in the IVWP Book, as described above.

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

If no, identify and explain any differences.

**Answer:** With respect to Hosted Pools, the ATS will determine whether or not to offer Hosted Pool functionality on a Subscriber-by-Subscriber basis, with the ATS making its determination based on current and expected order flow volume. Notwithstanding the foregoing, the procedures for trading in a Hosted Pool are the same for all Subscribers.

With respect to the IVWP book, all IVWP features, including the ~~IVWP Subscriber Roster and~~ counterparty selection capabilities based on a predefined MPID list or the IVWP Subscriber Roster, are available on the same terms to all Subscribers.

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