

### Exhibit 3

#### Part III: Manner of Operations

##### 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);
  - 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.

#### **Answer:**

##### Order Types and Order Type Modifiers

The ATS operates two different matching models: (1) a Midpoint book (“Midpoint”) that only accepts non-displayed midpoint orders and (2) ASPEN (or the “Adverse Selection Protection Engine”), a full limit order book with optional displayed capability. The ATS uses a matching mechanism which is near-continuous and that matches orders at scheduled times (“Match Events”), as discussed further in Part III, Item 11.

As discussed further below, Midpoint only accepts Midpoint Peg Orders (which are not accepted in ASPEN). 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. Only Limit Orders and Primary Peg Orders (with or without a limit price) are eligible to be displayed on the ASPEN Fee/Fee book.

For Midpoint, only orders that have rested on the order book for a minimum period of time are eligible to match. Such “Minimum Resting Periods” are determined by the ATS and set in a stock-specific fashion, similar to Match Events. However, in no event will the minimum resting period exceed 200 milliseconds. There are no Minimum Resting Periods for orders on ASPEN.

#### *Midpoint Peg Orders*

Midpoint Peg Orders are orders to buy or sell a stated amount of a security that are to be executed only at the midpoint price of the NBBO in the Midpoint book. The ATS will accept Midpoint Peg Orders with or without a limit price. Midpoint Peg Orders will be non-displayed.

#### *Midpoint Peg Orders with Time-in-Force Instructions*

The ATS will accept Midpoint Peg Orders with time-in-force instructions. Midpoint Peg Orders may be so designated, and such orders are orders to buy or sell a stated amount of a security that are to be executed only at the midpoint price of the NBBO in the Midpoint book. The ATS will accept such Peg Orders with or without a limit price, and these orders will be non-displayed. Midpoint Peg Orders with Time-in-Force instructions will be automatically canceled by the ATS within 100 milliseconds of order receipt by the matching engine; 100 milliseconds is the maximum timeframe in which a cancellation will occur. The amount of time until the order will be automatically canceled is calculated from the time of order receipt, and is determined by the ATS and calibrated on a security-by-security basis. The time period until automatic cancellation will be longer than or equal to the “Minimum Resting Period” (as discussed further in Part III, Item 11). The time period until automatic cancellation may be less than the time between Match Events such that the order may be canceled without participating in a Match Event. For example, if, for a particular security, the time period until automatic cancellation is 20 milliseconds but the time between Match Events is 30 milliseconds, it is possible that an order would be entered by a Subscriber and be automatically canceled before the first Match Event subsequent to order entry. The factors that contribute to determining the amount of time until an order is canceled include time of day, price reaction after trades, volume and volatility in the security, average spread, trade size, and other market factors. The time until cancellation is adjusted after enough data points have been accumulated to warrant an adjustment. A Subscriber may cancel such a Midpoint Peg Order at any time before the order is fully executed or the ATS cancels the order.

Below is an example of the operation of a Midpoint Peg Order with Time-in-Force instructions:

Security XYZ has a Match Event Interval to occur between 7 to 12 milliseconds apart.

The next Match Event is scheduled at 10:01:04:010.

At 10:01:04:000, Subscriber A submits a 1000 share Midpoint Peg buy order with a limit price of \$25.06 to participate in the Midpoint book for Security XYZ. Assume that the time period until the Midpoint Peg Order is automatically canceled for Security XYZ is 30 milliseconds.

At 10:01:04:005, Subscriber B submits a 500 share sell order with no limit price and a TIF of Day to participate in the Midpoint book for Security XYZ.

At the next scheduled Match Event for Security XYZ, (10:01:04:010), the matching engine retrieves the NBBO and determines that the NBBO is \$25.05 by \$25.07. The Midpoint price at the time of the Match Event is \$25.06 and is the Matching Price. Assuming that Subscriber A's and Subscriber B's orders have met the minimum resting period, Subscriber A will match 500 shares with Subscriber B at \$25.06 during the Match Event at 10:01:04:010. Subscriber A's remaining order for 500 shares is eligible to participate in any subsequent Midpoint Match Event occurring prior to the automatic cancellation of the order by the ATS at 10:01:04:030.

### *Primary Peg Orders*

Primary Peg Orders are orders to buy at the NBB, or sell at the NBO, a stated amount of a security that are to be executed only in ASPEN. Orders may be submitted with or without a limit price. Primary Peg Orders may be displayed or non-displayed at the Subscriber's discretion. If a displayed Primary Peg Order would lock or cross contra-side interest displayed inside the ATS or as part of the NBBO, such order will be displayed one minimum price variation less aggressive than the price of displayed contra-side interest inside the ATS or as part of the NBBO and ranked at the price of displayed contra-side interest inside the ATS or as part of the NBBO. 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 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 displayed contra-side interest inside the ATS or the NBBO, up to the order's limit price.

### *Marketable Peg Orders*

Marketable Peg Orders are orders to buy at or below the NBO, or sell at or above the NBB, a stated amount of a security that are to be executed only in the ASPEN book. Orders may be submitted with or without a limit price. Marketable Peg Orders will be non-displayed.

### *Limit Orders*

Limit Orders are orders to buy or sell a stated amount of a security at a specified price or better that are to be executed only in the ASPEN book.. Limit Orders may be displayed or non-displayed at the Subscriber's discretion. If a displayed Limit Order would lock or cross contra-side interest displayed inside the ATS or as part of the NBBO, such order will be displayed one minimum price variation less aggressive than the price of displayed contra-side interest inside the ATS or as part of the NBBO and ranked at the price of the displayed contra-side interest inside the ATS or as part of the NBBO. 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 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 displayed contra-side interest inside the ATS or the NBBO, up to the order's limit price.

### *Market Orders*

Market Orders are orders to buy or sell a stated amount of a security that is to be executed at or in between the NBBO only in ASPEN. Market Orders will be non-displayed.

### *Add Liquidity Only*

Subscribers may designate orders as Add Liquidity Only ("ALO"). ALO orders are to be entered only in ASPEN. ALO orders are Limit or Primary Peg orders that rest on the order book instead of the order being able to execute against contra interests that are already on the book at the same price or better price. ALO orders will only interact with other orders if the ALO order would be adding liquidity. Generally, for two given orders the one received first by the matching engine will be deemed to be adding liquidity.

### *Time-in-Force*

The ATS will accept orders with time-in-force instructions of Day, IOC, and Good Till Time. Day will be the default time-in-force instruction. Day orders will be held by the ATS on its books from the time of receipt until the end of Regular Trading Hours. If unfulfilled by the end of Regular Trading Hours, such Day orders will be canceled and the Subscriber who submitted the order will be notified. IOC orders in ASPEN will be held until the completion of the next Match Event, and if unexecuted, will be canceled. IOC in combination with the Midpoint Peg instruction is processed as a Midpoint Peg Order with Time-in-Force Instruction. IOC orders may be submitted with or without a limit price. IOC orders will be non-displayed. Good Till Time orders are eligible for use in the Midpoint book and Hosted Pools and will be held by the ATS on its books from the time of receipt for an amount of time specified by the Subscriber in milliseconds, and if unexecuted, will be canceled. A Good Till Time order will be held for a time that allows it to participate in at least one Match Event even if the order would normally be canceled prior to the Match Event.

### *Not Held*

All orders entered into the ATS by Subscribers are Not Held.

### Open Orders

All open orders are canceled at the end of the trading day.

### Routing

IntelligentCross does not support the routing of orders to any other venue.

### Message Priority

Incoming orders and related messages are processed in the order in which they are received by the ATS.

### Match Priority

~~Please see Item 11 for a description of the ATS's match priority criteria. Generally, an order's match priority will be based on price, display type (for ASPEN), and the time at which such order is received relative to other orders. With respect to ASPEN, at each price level, displayed orders will have priority over non-displayed orders. All orders will be timestamped and accordingly prioritized based on the time of their receipt by the ATS. 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 and then matched with time priority based on the order receipt by the ATS. Orders received outside these periods will not be accepted. 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.~~

### Order Amendment

An open order may be amended by Subscribers to the extent the amendment is received by the ATS 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.

### Order Cancellation

An open order may be canceled by Subscribers to the extent the cancellation order is received by the ATS before a Match Event involving that order occurs. Cancellation orders will cancel all remaining open quantity on an order. Cancellation orders are processed in the order in which they are received by the ATS.

### Hosted Pools

At the request of one or more Subscribers, the ATS will setup a Hosted Pool where such Subscriber(s) may designate that an order interact with other orders entered by that same Subscriber or other Subscribers participating in the same Hosted Pool. Subscribers may enter such orders in either a principal or agency capacity. An order designated to interact within a Hosted Pool can also be designated to interact with the liquidity outside the Hosted Pool after checking for liquidity available in the Hosted Pool. In particular, during a Match Event, the matching engine will, in sequential order: (1) match orders eligible to be matched in Hosted Pools, and then (2) match orders outside the Hosted Pool, including orders designated to interact first in a Hosted Pool and then outside a Hosted Pool. The ATS's Hosted Pools accept "Conditional Orders." Conditional Orders are not accepted outside of the ATS's Hosted Pools. The ATS' Hosted Pools permit the publication of indications of interest ("IOIs"), which allow participants of a Hosted Pool to send IOIs to any other participant of that Hosted Pool. IOIs contain symbol, side and size. See Part III, Item 9 for a discussion of Conditional Orders and IOIs.

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

☒ Yes ☐ No

If no, identify and explain any differences.

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:**

The ATS operates two 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, and (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. 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 model.

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 Midpoint book only accepts Midpoint Peg Orders, which are not accepted in any of the ASPEN books; orders in the Midpoint book will therefore 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 must affirmatively identify those books when entering their order. Subscribers can route to the different ASPEN books by utilizing FIX tags to specify which ASPEN book to send their order to, and can also request dedicated sessions to specific books.

- 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”). The ATS’ two different matching models – Midpoint and ASPEN - 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. Each day starts with a prepared matching schedule for each security that does not change throughout the day.

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. 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 ~~Process and 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) keep the NBBO 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 executions that occur on the ATS, including in Hosted Pools, 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 Match Event Intervals per security are adjusted after enough data points have been accumulated to warrant an adjustment.~~

~~Below is an example of how the Midpoint matching process works using Match Event Intervals. The assumptions include:~~

- ~~• Security XYZ has a Match Event Interval between 7 to 12 milliseconds.~~
- ~~• The next Match Event is scheduled at 10:01:04:003.~~
- ~~• Subscriber A has submitted a 500 share buy order with a limit price of \$25.06 and TIF of Day for Security XYZ.~~
- ~~• Subscriber B has submitted a 200 share buy order with a limit price of \$25.07 and TIF of Day for Security XYZ (this order was received after Subscriber A's order so Subscriber A has priority over Subscriber B).~~
- ~~• Subscriber C submits a 600 share sell order with no limit price and a TIF of Day for Security XYZ.~~

~~At the next scheduled Match Event for Security XYZ, (10:01:04:003), the matching engine retrieves the NBBO and determines that the NBBO is \$25.05 by \$25.07. The Midpoint price at the time of the Match Event is \$25.06 and is the matching price. As a result, the following executions occur during the Match Event at 10:01:04:003.~~

~~Subscriber A will match 500 shares with Subscriber C at \$25.06.~~

~~Subscriber B will match 100 shares with Subscriber C at \$25.06.~~

~~Subscriber A's 500 share order has been fully filled.~~

~~Subscriber B received a fill of 100 shares and has 100 shares remaining that will be eligible for the next Match Event.~~

~~Subscriber C's 600 share order has been fully filled.~~

~~The next Match Event will be at a time between 10:01:04:010 and 10:01:04:015 because the last match event was at 10:01:04:003 and the Match Event Intervals are between 7 and 12 milliseconds apart. This process will continue throughout the trading day.~~

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.

~~In the example described above, the Match Event Intervals could increase, stay the same, or decrease.~~

#### ASPEN Match Event ~~Process and Match Event~~ Intervals

ASPEN will have Match Event Intervals between 150 and 900 microseconds that are calibrated on a security-by-security basis. The ~~matching process and~~ 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.

~~Below is an example of how the ASPEN matching process works using Match Event Intervals. The assumptions include:~~

- ~~• Security XYZ has a Match Event Interval between 175 to 200 microseconds.~~
- ~~• The next Match Event is scheduled at 10:01:04:003:005.~~

- ~~Subscriber A has submitted a 500 share buy limit order with a limit price of \$25.06 and TIF of Day for Security XYZ.~~
- ~~Subscriber B has submitted a 200 share buy limit order with a limit price of \$25.07 and TIF of Day for Security XYZ.~~
- ~~Subscriber C submits a 600 share sell market order with no limit price and TIF of Day for Security XYZ.~~

~~At the next scheduled Match Event for Security XYZ (10:01:04:003:005), the matching engine retrieves the NBBO and determines that the NBBO is \$25.05 by \$25.07. As a result, the following executions occur during the Match Event at 10:01:04:003:005:~~

~~Subscriber B will match 200 shares with Subscriber C at \$25.07.~~

~~Subscriber A will match 400 shares with Subscriber C at \$25.06.~~

~~Subscriber B's 200 share order has been fully filled.~~

~~Subscriber A received a fill of 400 shares and has 100 shares remaining that will be eligible for the next Match Event.~~

~~Subscriber C's 600 share order has been fully filled at prices of \$25.06 and \$25.07.~~

~~The next Match Event will be at a time between 10:01:04:003:180 and 10:01:04:003:205 because the last match event was at 10:01:04:003:005 and the Match Event Intervals are between 175 and 200 microseconds apart. This process will continue throughout the trading day.~~

The ATS makes a daily determination as to whether the Match Event Intervals for each security should be increased, decreased, or stay the same. ~~In the example described above the Match Event Intervals could increase, stay the same, or decrease.~~

#### 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

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 displayed contra-side interest inside the ATS or as part of the NBBO. 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 displayed contra-side interest inside the ATS or as part of the NBBO, up to the order's limit price.

#### 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, in the event that the NBB is less than \$1.00, the ATS will execute orders at valid prices within the NBBO.

#### 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

~~Generally, an order's match priority will be based on price, display type (for ASPEN), and the time at which such order is received relative to other orders. With respect to ASPEN, at each price level, displayed orders will have priority over non-displayed orders. All orders will be timestamped and accordingly prioritized based on the time of their receipt by the ATS. 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.~~

### 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

The first step in determining match priority in the ASPEN book occurs prior to the book entering into a matchable state. Prior to entering into a matchable state, IntelligentCross gathers orders in its system and such orders' match priority will be 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.

The second step in determining match priority occurs after the ASPEN book enters into a matchable state. After the ASPEN book enters into a matchable state, the match priority for any orders that arrive between that time and before the Match Event will be based solely on the time of their receipt by the ATS, i.e., sequentially in order of arrival.

In match events, price improvement (if there is any) will be provided to the order with the later effective timestamp between the two orders receiving an execution.

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.

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 non-displayed 100 share buy limit order with a limit price of \$10.10 and TIF of Day for Security XYZ.
- Subscriber B has submitted a non-displayed 100 share sell limit order with a limit price of \$10.10 and TIF of Day for Security XYZ.
- 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 buy limit order with a limit price of \$10.11 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 \$10.10 by \$10.11. As a result, the following executions occur during the Match Event:

- Subscriber A will match 100 shares with Subscriber B at \$10.10.
- Subscriber C’s order will not match with Subscriber B as the IntelligentCross match priority criteria provides priority to the orders on each side that were eligible to match and that set the price and created the matchable state (orders of Subscriber A and Subscriber B). Subscriber C’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 sell. At Match Event time:

- Subscriber A will match 100 shares with Subscriber B at \$10.10
- Subscriber C will be price improved and will match 100 shares with Subscriber B at \$10.10.

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 A cancels its order. At Match Event time:

- Subscriber C will match 100 shares with Subscriber B at \$10.10.

Example 4: Assume in the above Example 1 that Subscriber C's order was priced at \$10.10 but was displayed. At Match Event time:

- Subscriber A will match 100 shares with Subscriber B at \$10.10
- Subscriber C's order will not match with Subscriber B as once the ASPEN book enters into a matchable state, the match priority for any orders that arrive between that time and before the Match Event will be based on the time of their receipt by the ATS; displayed orders do not have priority over non-displayed orders during that time period.

Example 5: 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 D submits a non-displayed 100 share sell limit order with a limit price of \$10.10 and TIF of Day for Security XYZ. At Match Event time:

- Subscriber A will match 100 shares with Subscriber B at \$10.10
- Subscriber C will match 100 shares with Subscriber D at \$10.11.

#### General Match Priority Criteria Information

The match priority criteria in a Hosted Pool are generally the same as in the ATS. For the purpose of Hosted Pools only, Midpoint Peg Orders are not subject to the Midpoint Minimum Resting Period.

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 and then matched with time priority based on the order receipt by the ATS. Orders received outside these periods will not be accepted. 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.

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 either electronically (ACT Web for NASDAQ TRF) or over the telephone (NYSE 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 NASDAQ's WebLink ACT. A file in IntelligentCross' systems will be created that documents any ACT reversals that have been performed as a result of a clearly erroneous notification.

#### 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 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. 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.

#### Hosted Pools

At the request of one or more Subscribers, the ATS will setup a Hosted Pool where such Subscriber(s) may designate that an order interact with other orders entered by that same Subscriber or other Subscribers participating in the same Hosted Pool. Unless otherwise stated, the matching and trading rules in a Hosted Pool are the same as in the ATS. 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.

Subscribers may designate an order to interact within a Hosted Pool, as well as to interact with the liquidity outside the Hosted Pool after checking for liquidity in the Hosted Pool. In particular, at each Match Event, the matching engine will, in sequential order, (1) match orders eligible to be matched in Hosted Pools, and then (2) match orders outside the Hosted Pool, including orders designated to interact first in a Hosted Pool and then outside a Hosted Pool.

The ATS's Hosted Pools accept "Conditional Orders" and permit the publication of IOIs. Conditional Orders are not accepted outside of the ATS's Hosted Pools. IOIs are only published to other participants of the same Hosted Pool. See Part III, Item 9 for a discussion of Conditional Orders and IOIs.

- 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.